



State of New Jersey
DEPARTMENT OF COMMUNITY AFFAIRS

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Compliance with the Virginia Graeme Baker Act for all Public Pools in New Jersey

**A Guidance document for Local Health Departments from
The Department of Health and Senior Services (DHSS) and
The NJ Department of Community Affairs (DCA)**

A Federal Law, known as the Virginia Graeme Baker Pool and Spa Safety Act became effective in December of 2008. The Law requires that all public swimming pools be retrofitted to provide features that will help eliminate bather entrapment hazards. The Virginia Graeme Baker Pool and Spa Safety Act is inconsistent with rules that are currently used by both the Department of Health and Senior Services (DHSS) and The Department of Community Affairs (DCA) for the design, construction and maintenance of public pools and spas. Both Departments have worked closely together to ensure that the rules for the design and maintenance of swimming pools are consistent so that there is a uniform approach to pool and spa safety across the State. In an effort to maintain that consistency of enforcement, in light of the new Federal law, the Departments are jointly issuing this guidance for health inspectors, building code officials and carnival and amusement ride inspectors.

Public Pools that are included under the Federal law are as follows:

- Indoor or Outdoor public pools and spas
- Above or in-ground pool and spa structures
- Hot tubs for public use
- Non-portable or portable wading pools intended for public use.
- Public and municipal swimming pools
- Pool and spas located in camps
- Pools and spas associated with hotels
- Pools associated with water parks



The Virginia Graeme Baker Pool and Spa Safety Act which went into effect December 19, 2008 is a Federal Law enacted to increase the safety of public swimming pools and spas throughout the country. The US Consumer Product Safety Commission (CPSC) has been designated as the overseeing administrative agency. The Federal Law requires the replacement of all existing drain covers in both public pools and spas with new anti-entrapment covers which meet the American National Standard ASME A112.19.8 – 2007 Suction Fittings for Use in Swimming Pools, Spas and Hot Tubs published by the American Society of Mechanical Engineers (ASME). This requirement applies to all suction outlets that are submerged regardless of the piping arrangement of the drains. The standard tests for limb and hair entrapment as well as body (torso) entrapment and is therefore applicable to drains that could draw in hair or fingers etc. which is a concern regardless of the drain arrangement.

In addition, the new law also requires that all public pools and spas with a single main drain or multiple drains that are in close proximity to one another to be equipped with proper safety devices to prevent body entrapment.

Acceptable methods of complying include:

- The installation of safety vacuum release systems (SVRS)
- Suction limiting venting systems
- Gravity drainage system
- Automatic pump shutoff system,

(All of which may already be in placed at New Jersey pools)

Or other systems determined by the CPSC to be equally effective in preventing suction entrapment. Drain disablement, though allowed as an option by the CPSC, is not an acceptable option in New Jersey.

The Federal Law does not assign the States enforcement responsibility for the Law, though they acknowledge that the State Attorneys General can enforce the law if they so choose. Therefore neither the Department of Health and Senior

Services nor the Department of Community Affairs have any enforcement responsibility and by extension neither do those who are charged with carrying out the enforcement of the Uniform Construction Code (N.J.A.C. 5:23 et seq.), the Consumer and Environmental Health Services Public Recreational Bathing Rule (N.J.A.C. 8:26 et seq.) nor the Carnival and Amusement Ride Safety Rules (N.J.A.C. 5:14A et seq.). However, both agencies recognize that ignoring the Federal law would be irresponsible. Therefore, the Departments are suggesting that the following action be taken.

NEW PUBLIC POOLS:

Any new pools being constructed must be constructed in accordance with the provisions of the Federal Law. Therefore, plumbing and building subcode officials and inspectors should ensure that all suction drain outlets be provided with covers that meet ASME A112.19.8 – 2007. Drain covers that comply are marked with the standard and in some cases have a “VGB 2008” marking. In addition the acceptability of the drain covers can be verified at <http://www.cpsc.gov/businfo/vgb/poolspa.aspx>. Presently, third-party testing and certification is being conducted by Underwriters Laboratories, the National Sanitation Foundation, and IAPMO (The International Association of Plumbing and Mechanical Officials). In the future, it is possible that other third party testing agencies may also test and certify covers. The Departments will try to keep you apprised when that happens. Larger drains, such as those found in water parks are not likely to be available pre-stamped with an ANSI approval. Therefore, their design will have to be field certified by a qualified design professional. A qualified design professional is a professional engineer (PE) who certifies that the field certified cover/unit meets the requirements of ASME/ANSI A112.19.8-2007, including flow rates, UV exposure, and durability. The PE must document that the drain cover meets the new standard and provide a copy of the certificate to the pool owner/operator. The Federal Act also requires vacuum release capability for pools with a single main drain; however, current New Jersey rules require that all new pools and spas have multiple drains that are remote or

located on different planes. Some designers may attempt to eliminate all submerged suction outlets to avoid the requirements. Any newly constructed pool that is designed without dual main drains on the pool floor or without drains at all, and relies only on skimmers, overflows or gutters for circulation would require a waiver from the Department of Health and Senior Services. According to the CPSC interpretation of the law, in order for a multiple drain system to be used as a method of entrapment avoidance, they must be located at least 3 feet but not more than 6 feet apart.

EXISTING POOLS:

According to the Federal Law, existing pools are required to comply before they are opened for the 2009 season. However, there are concerns about the availability of compliant covers in all standard sizes as well as concerns about the availability of qualified people to do field evaluation of covers that are not a standard size and are custom made. Therefore the Departments are recommending that health authorities and the Carnival and Amusement Ride Inspectors take the following steps when inspecting public pools and spas this season

Note: *There are no retrofit provisions or periodic inspections provided for public pools under the Uniform Construction Code, therefore there is no routine opportunity for the plumbing or building inspector to inspect under the UCC.*

The local health inspectors have the primary responsibility for distributing information, inspecting and taking enforcement action for pools and spas that are used for recreational swimming or bathing when not covered by the Water Park Subcode of the Carnival and Amusement Ride Safety Rules. Carnival and Amusement Ride Inspectors have primary responsibility for distributing information, inspecting and taking enforcement action for pools that are covered by the Water Park Subcode of the Carnival and Amusement Ride Safety Rules, which include slide receiving pools, lazy rivers, and wave pools.

LOCAL HEALTH INSPECTORS SHALL:

1. **Inform** all licensed swimming pool facilities, through distribution of this document, that anti-vortex drain covers for use on suction outlets are no longer sufficient. Drain covers must be retrofitted to meet the above requirements and be anti-entrapment covers meeting ASTM A112.19.8.
2. **Inspect** all pools prior to opening for compliance.
3. **Verify** that all suction outlet covers meet the ANSI/ASTM A112.19.8 standard.
4. **Verify** that the pool either has:
 - **Multiple suction outlets per pump** that are located at least 3 feet apart or on different planes; or
 - **A means of releasing or preventing vacuum pressure** if the drain becomes blocked. An intervening switch, SVRS, suction limiting vent system, or gravity drainage system, or automatic pump shutoff system installed as part of the system will all satisfy this requirement. Locking the skimmer drain valves will no longer be an acceptable means of compliance after December 19, 2008; or
 - **A drain that meets the criteria for “unblockable.”** The Federal Law allows for pools and spas with a single main drain to be used without a vacuum release method where the drain is “unblockable.” Unblockable is defined in the Law as “a drain of any size and shape that a human body cannot sufficiently block to create a suction entrapment hazard.” It should be noted that under New Jersey Rules all newly constructed pools and spas must have multiple, balanced suction outlets that are remote from one another. The New Jersey rules do not contain an allowance for an unblockable drain in lieu of a vacuum release system; therefore special approval is needed for this option. Any consideration of a single main drain that is unblockable would have to be done through a waiver from the Department of Health and Senior Services; or, for water park pools classified as part of a ride, a variation from the Department of

Community Affairs' Carnival and Amusement Ride Unit and the Department of Health and Senior Services. Though the Federal guidance document lists specific dimensions for an unblockable drain, any submission seeking to use a single main drain would have to demonstrate that when blocked by the test block listed in ASME/ANSI A112.19.8 (18" by 23"), the suction forces are not sufficient to cause an entrapment in accordance with the criteria listed in ASME/ANSI A112.19.8. Though the concept of an unblockable drain is not addressed in the current rules, the Departments are confident that a drain with a diagonal of at least 36 inches can be deemed equivalent to the current state requirement for a 36 inch separation between drains. Unblockable drains that do not have a diagonal, length or width of 36 inches or more, must have a secondary backup system installed or be otherwise approved by the Department of Health and Senior Services and Department of Community Affairs (DCA approval is only needed for pools that are under the scope of the Carnival and Amusement Ride Safety regulations only).

- **Ensure that the drains** have not been disabled.
- **Ensure that all spas** have an emergency pump shutoff switch that is in plain sight.

5. **Decide if any action needs to be taken.** At this time the Departments suggest that the following action be taken. The Departments may supplement this information as enforcement priorities evolve.

- **If the drain cover is damaged and rendered ineffective**, the public pool or spa must remain closed and a new anti-entrapment cover must be installed prior to reopening.
- **Pools that are not in compliance with** the current NJ rules for entrapment avoidance for existing pools should be closed.
 - **If the pool has a dual main drain system**, at least 36 inches apart, meeting the current Public Recreational Bathing rule at N.J.A.C.

8:26 et seq. or the Carnival and Amusement Ride Safety Rules Water Park Subchapter at N.J.A.C. 5:14A – 12 et seq., with its anti-vortex drain covers in good repair, the risk associated with entrapment is very low, however pool owners are still obligated to comply with the Federal requirements for compliant drain covers. The Departments recommend that Health Inspectors and Carnival and Amusement Ride Inspectors not shut down pools for non-compliance with the Virginia Graeme Baker Act if they are in compliance with the current New Jersey requirement for entrapment avoidance. Notification should simply be forwarded to the CPSC as a means to encourage compliance where the owner is not making a good faith effort to comply or where the pool presents a higher risk. The Department of Health and Senior Services would like to be copied on any notification to the CPSC.

The design depth of the pool should be taken into account as the risk of entrapment decreases at depths greater than five feet because it is less likely that a bather, especially a child, will come in contact with the drain. For pools under 5 feet deep the CPSC should be notified of the violation upon the first inspection since the CPSC has identified wading pools, in-ground spas and other pools specifically designed for young children as a priority for compliance.

For pools over 5 feet deep, if a pool owner/operator has difficulty finding the new anti-entrapment drain covers because they are not commercially available in New Jersey, then the Department recommends that they arrange to have their drains field certified in accordance with the provisions of the law. For questions related to this process in terms of documentation, possible time extensions etc., the pool owner/operator should call the CPSC at the toll free consumer hotline 800-638-2772 (TTY 800-638-8270). The Compliance Information branch of the CPSC can also be used as a resource, their number is 301-504-7912. In cases

where the owner is not making a good faith effort to comply, the Departments recommend that the CPSC be notified.

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HELPFUL LINKS:

- [List of Drain Cover Manufacturers for Pools and Spas that meet the Virginia Graeme Baker Act.](#)
- [The Consumer Product Safety Commission Enforcement Position](#)
- [The Virginia Graeme Baker Pool and Spa Safety Act CPSC Information page](#)