UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
4330 EAST WEST HIGHWAY
BETHESDA, MD 20814

This document has been electronically approved and signed.

**BALLOT VOTE SHEET**

Date: January 27, 2012

TO : The Commission
Todd A. Stevenson, Secretary

THROUGH: Kenneth R. Hinson, Executive Director

FROM : Cheryl A. Falvey, General Counsel
Philip L. Chao, Assistant General Counsel, RAD
Barbara E. Little, Attorney

SUBJECT : Virginia Graeme Baker Pool and Spa Safety Act ("VGB Act") Grant Program Package

Ballot Vote Due: February 2, 2012

Section 1405 of the VGB Act directs the U.S. Consumer Product Safety Commission ("CPSC") to establish a grant program to provide assistance to eligible states or political subdivisions of a state. 15 U.S.C. § 8004. Section 1406 of the VGB Act specifies the minimum requirements that states or political subdivisions of a state must meet to be eligible to apply for a grant under the VGB Act's grant program. 15 U.S.C. § 8005. The attached VGB Act grant program package consists of the updated Funding Opportunity Announcement, updated Model Legislation, and updated Technical Guidance for Section 1406 of the VGB Act.

Please indicate your vote:

I. Approve the updated VGB Act grant package so that CPSC staff can proceed with the grant program.

_____ _____
Signature Date

II. Approve the updated VGB Act grant package, with changes, so that CPSC staff can proceed with the grant program (please specify changes):

_____

_____

_____

Signature _____ Date _____

III. Do not approve the updated VGB Act grant program package.

Signature _____ Date _____

IV. Take other action (please specify):

_____

_____

_____

Signature _____ Date _____

Attachment: The Virginia Graeme Baker Pool and Spa Safety Act Grant Program

UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
4330 EAST WEST HIGHWAY
BETHESDA, MD 20814

**Memorandum**

This document has been electronically approved and signed.

January 27, 2012

TO : The Commission
Todd A. Stevenson, Secretary

THROUGH: Kenneth R. Hinson, Executive Director
Robert J. Howell, Deputy Executive Director for Safety Operations

FROM : DeWane Ray, Assistant Executive Director, Office of Hazard Identification and Reduction
Elizabeth W. Leland, Project Manager – Virginia Graeme Baker Pool and Spa Safety Act Grant Program

SUBJECT : The Virginia Graeme Baker Pool and Spa Safety Act Grant Program

## A. Introduction

The Virginia Graeme Baker Pool and Spa Safety Act, P.L. 110-140, Title XIV ("VGB Act") was passed by Congress on December 19, 2007, with an effective date of 1 year later.[1] The purpose of the Act is to prevent drain entrapment and child drowning in swimming pools and spas. Section 1405 establishes a swimming pool safety grant program through appropriations to the U.S. Consumer Product Safety Commission (CPSC). Section 1406 provides minimum requirements that applicants must meet to be eligible to apply for a grant.

In February 2010, staff provided information to the Commission regarding the grant program and asked the Commission to vote on a Funding Opportunity Announcement (FOA) that would publicize the grant program and on two staff documents that were referenced in the FOA.[2] These two documents were: (1) Model Legislation and (2) Technical Guidance to Section 1406 of the VGB Act ("Technical Guidance"). The Commission voted to approve the issuance of the FOA, the Model Legislation, and the Technical Guidance on March 1, 2010.

The VGB Act has since been revised to make the grant program open to eligible "political subdivisions," as well as to states and to make it applicable only to new pools, rather than to existing and new pools. As a result, the FOA, Technical Guidance, and Model Legislation documents have been updated to reflect these changes. In addition, the documents have been updated to reflect: (1) the September 2011 Commission decision regarding the unblockable drain revocation and (2) the existence of ANSI/APSP-16-2011 as the successor standard to

[1] A copy of the Act can be accessed at: www.poolsafely.gov/pool-spa-safety-act/read/.
[2] The briefing package and these documents can be found at: www.cpsc.gov/library/foia/foia10/brief/vgb.pdf.

ASME/ANSI A112.19.8. The updated documents are being provided with this briefing package for Commission review and decision.

**B. Background**

The VGB Act grant program is designed to provide financial assistance to eligible applicants for the purposes of:

- hiring and training personnel to implement and enforce the awardee's swimming pool and spa safety law;
- educating pool construction, installation, and service companies about the standard;
- educating pool owners and operators and other members of the public about the standards under the applicant's swimming pool and spa safety law and about the prevention of drowning and entrapment of children in swimming pools and spas, and
- defraying the applicant's administrative costs associated with such training and education programs.

At least 50 percent of the funds made available to a grant awardee are to be used for the hiring and training of enforcement personnel. There are no percentage restrictions attached to the use of the remaining funds to meet the other objectives.

Section 1405(e) of the Act specified that, subject to funds availability, an amount of $2,000,000 was authorized to be appropriated for each of the fiscal years (FYs) 2009 and 2010. Those funds were appropriated, with spending obligations through September 30, 2010, for the 2009 appropriated funds, and through September 30, 2011, for the FY 2010 appropriated funds.

In 2010, CPSC began the process of establishing the grant program by entering into an interagency agreement ("IAA") with the National Center for Injury Prevention and Control/Centers for Disease Control and Prevention ("NCIPC/CDC") to administer the program (CPSC has no in-agency capability for administering such a program). With NCIPC/CDC as the lead agency and CPSC staff providing input, an FOA was developed that provided information about eligibility to apply for a grant, application content and submission requirements, application review procedures, and application evaluation criteria. The FOA was published on March 29, 2010, on www.grants.gov, with a closing date for receipt of applications of May 28, 2010. No states applied for a grant, and no grants were awarded in FY 2010.

In the process of publishing the FOA, CPSC and NCIPC staffs learned that no state was eligible to apply for grants in FY 2010 and likely would not be in 2011. This was because states generally address pool safety—not through state law—but rather, through the enactment of local legislation or ordinances or adoption of national codes. When this was brought to the attention of the congressional sponsor of the legislation, the original spending obligation deadline of September 30, 2011, for the FY 2010 appropriated funds was extended to September 30, 2012. In addition, the following sentence was added to section 1405(e): "For purposes of eligibility for the grants authorized under section 1405, such term shall also include any political subdivision of a State." The change to the Act was not made before the deadline had passed for issuing an FOA, and,NCIPC/CDC did not publish an FOA in FY 2011.

In the Model Legislation and Technical Guidance documents that the Commission approved in 2010, CPSC staff interpreted the Act as requiring, for minimum eligibility purposes, a statute that would include barrier and entrapment prevention requirements for existing and newly built pools. In late summer 2011, CPSC and NCIPC/CDC sent an information e-mail message about the grant program to the e-mail listservs of approximately 5,000 members with an interest in pool safety. Information received in response to that message and from other general sources indicated concerns about meeting the eligibility requirements for *existing* pools. Thus, in the CPSC's FY 2012 appropriation, the language was changed to say that, for the minimum eligibility requirements of the grant program, the statute of the state or political subdivision of a state would apply to all swimming pools constructed after the date that is 6 months after the date of enactment of the Financial Services and General Government Appropriations Act, 2012 (*i.e.*, June 23, 2012).[3]

Thus, two changes have been made to the VGB Act's minimum eligibility requirements for applying for a grant under the grant program. These are: (1) the term "state" includes "any political subdivision of a state"; and (2) the minimum eligibility requirements are applicable only to pools constructed on or after June 23, 2012.

**C. Implementation of the VGB Act Grant Program in FY 2012**

CPSC staff will continue its efforts to implement the VGB Act grant program in FY 2012. CPSC and NCIPC staffs have developed a draft FOA for publication in late March/early April 2012. Applications will be due 60 days after publication, in late May or early June, and grants will be awarded in August 2012, with a project period duration of 1 year. To assist potential applicants with understanding and meeting the eligibility requirements for the grant program, the FOA will include by website link, CPSC staff's Model Legislation and Technical Guidance documents. These documents have been updated to incorporate the changes described above. The Model Legislation documents can be found at Tab A and the Technical Guidance for Section 1406 can be found at Tab B. Because the FOA has not been released to the public, it will be provided to the Commission under separate cover.

The IAA that will be developed for the administration of the grant program by NCIPC/CDC will specify the tasks that each agency will complete to ensure implementation of the grant program and establish the cost to the CPSC of having NCIPC/CDC administer the program. To meet the direction of section 1405 of the Act—that the applicant must demonstrate to the satisfaction of the Commission that it has an existing statute, or amended an existing statute, and provides for the enforcement of a law that meets the barrier and entrapment prevention requirements of the VGB Act—the FOA will require each applicant to have a Letter of Advice from the CPSC's Office of the General Counsel, stating that the applicant's statute meets the minimum eligibility requirements to apply for a grant.

**D. Options Available to the Commission**

1. *Approve the Updated Model Legislation, Updated Technical Guidance, and Updated Funding Opportunity Announcement with No Changes*

[3] There is one exception to this provision. Section 1406(a)(1)(A) states that the state law must require that pools and spas built *more than 1 year after the date of enactment of the state's statute* must have: (1) more than one drain; (2) 1 or more unblockable drains; or (3) no main drain.

If the Commission agrees with the updates that have been incorporated into the three documents, it could approve the documents. This will enable staff to proceed with implementation of the VGB Act grant program in FY 2012.

2. *Approve the Updated Model Legislation, Updated Technical Guidance, and Updated Funding Opportunity Announcement with Changes*

   If the Commission believes the updates to the documents should be changed, it could approve the documents, with changes. This would still enable staff to continue with implementation of the program in FY 2012, as long as the changes could be incorporated into the documents and staff could meet the timeline for publishing the FOA.

3. *Do Not Approve the Updated Model Legislation, Updated Technical Guidance, and Updated Funding Opportunity Announcement*

   If the Commission disagrees with the updates to the above documents, it could disapprove the documents, and staff would not be able to proceed with implementing the VGB grant program in FY 2012.

**E. Staff Recommendation**

Staff recommends that the Commission approve the updated Model Legislation, the updated Technical Guidance, and the updated Funding Opportunity Announcement. This will allow staff to implement the grant program that is statutorily required by the VGB act.

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Enclosures
Tab A: Model Legislation (previously approved version with highlighted updates)
Tab B: Updated Technical Guidance (previously approved version with highlighted updates)

Under Separate Cover:
Tab C: Updated Draft Funding Opportunity Announcement (For Official Use Only)

# Tab A

*(This Model Legislation is provided by the U.S. Consumer Product Safety Commission staff for the purpose of assisting state and local legislatures that desire to enact or amend existing legislation for the purpose of preventing child drowning and suction entrapment injuries and deaths in swimming pools and spas. This Model Legislation also is intended to assist states and political subdivisions that want to meet the minimum eligibility requirements for applying for a grant under Sections 1405 and 1406 of the Virginia Graeme Baker Pool and Spa Safety Act.)*

# MODEL UNIFORM STATE (OR POLITICAL SUBDIVISION) POOL AND SPA SAFETY BILL

## SECTION 1
## TITLE

This Act shall be known and may be cited as the "[STATE or POLITICAL SUBDIVISION] Virginia Graeme Baker Pool and Spa Safety Act."

## SECTION 2
## PURPOSE

This Act is intended to enhance the safety of public and residential pools and spas; encourage the use of layers of protection; reduce child drowning in pools and spas; reduce the number of suction entrapment incidents, injuries, and deaths; and educate the public on the importance of constant supervision of children in and around water.

## SECTION 3
## DEFINITIONS

For the purposes of this Act:

(a) ASME/ANSI.—The term "ASME/ANSI" as applied to a safety standard means a standard that is accredited by the American National Standards Institute (ANSI) and published by the American Society of Mechanical Engineers (ASME).
(b) Automatic pump shut-off system.—An automatic pump shut-off system is a device that can sense a drain blockage and shut off the pump system. Some safety vacuum release systems may meet this definition.
(c) Barrier.—The term "barrier" includes a natural or constructed topographical feature that prevents unpermitted access by young children to a swimming pool, and, with respect to a portable hot tub and a portable spa, a lockable cover.
(d) Commission.—The term "Commission" means the U.S. Consumer Product Safety Commission.
(e) Drain disablement.—A device or system that disables the drain.
(f) Gravity drainage system.—A gravity drainage system utilizing a collector tank is a swimming pool/spa with a separate water storage vessel from which the pool circulation pump draws water. Water moves from the pool to the collector tank due to atmospheric pressure, gravity and the displacement of water by bathers, which removes the need for direct suction at the pool. This type of system is also referred to as a reservoir, surge tank, or surge pit.

(g) Main drain.—The term "main drain" means a submerged suction outlet typically located at the bottom of a pool or spa to conduct water to a recirculating pump.

(h) Multiple main drain system.—A multiple main drain system consists of, at a minimum, two fully submerged suction outlets per pump, with drain cover centers at least 3 feet apart.

(i) Public pool or spa.—The term "public pool" or "public spa" means a pool or spa that is—

a. Open to the public generally, whether for a fee or free of charge;

b. Open exclusively to—

i. Members of an organization and their guests;

ii. Residents of a multi-unit apartment building, apartment complex, residential real estate development, or other multi-family residential area (other than a municipality, township, or other local government jurisdiction); or

iii. Patrons of a hotel or other public accommodations facility; or

c. Operated by the Federal Government (or by a concessionaire on behalf of the Federal Government) for the benefit of members of the Armed Forces and their dependents or employees of any department or agency and their dependents, only to the extent these pools or spas are under the jurisdiction of the State.

(j) Safety vacuum release system.—The term "safety vacuum release system" means a vacuum release system capable of providing vacuum release at a suction outlet where there is a high vacuum occurrence due to a suction outlet flow blockage. The safety vacuum release system ceases operation of the pump, reverses the circulation flow, or otherwise provides a vacuum release at a suction outlet when a blockage is detected. It has been tested by an independent third party and found to conform to ASME/ANSI standard A112.19.17 or ASTM standard F2387.

(k) Single main drain.—A single main drain is a submerged suction outlet, with or without a skimmer, connected to a dedicated pool pump. Main drains do not drain the pool, spa, or hot tub, as a sink drain does in a sink, but rather connect to the pump to allow for circulation and filtration. A pool may have more than one single main drain if it has multiple suction outlets that are each connected to a dedicated pump. A group of suction outlets connected together is considered a single main drain if the centers of the outlets are located at a distance less than three 3 feet from each other.

(l) Suction-limiting vent system.—A suction-limiting vent system is also called an atmospheric vent. It is a pipe teed to the suction side of the circulation system on one end and open to the atmosphere on the opposite end. The pipe is normally full of water equal to the same height as the pool. When a blockage occurs at the main drain, air is introduced into the suction line thus causing the pump to lose prime and relieving the suction forces at the main drain (suction outlet).

(m) Swimming pool; spa.—The term "swimming pool" or "spa" means any outdoor or indoor structure intended for swimming or recreational bathing, including in-ground, on-ground, and above-ground structures, inflatable pools that can hold water over 24 inches deep, hot tubs, portable hot tubs, spas, portable spas, and non-portable wading pools.

(n) Unblockable drain.—The term "unblockable drain" means a drain of any size and shape that a human body cannot sufficiently block to create a suction entrapment hazard.

## SECTION 4
## MINIMUM REQUIREMENTS

### I. Barriers.

**All outdoor residential pools and spas constructed or installed after June 23, 2012, shall be enclosed by barriers to entry that will effectively prevent small children from gaining unsupervised and unfettered access to the pool or spa.**

*Note: The State (or political subdivision) statute must require enclosure of all outdoor residential pools and spas constructed or installed after June 23, 2012 by barrier to entry. Thus, this section applies to outdoor residential pools and spas (constructed or installed after June 23, 2012); it does not apply to public pools and spas. The intent of these barriers is to effectively provide protection against drowning or near-drowning of young children by preventing them from gaining unsupervised and unfettered access to swimming pools and spas.*

*For purposes of the barrier requirement, a "swimming pool" or "spa" includes any outdoor structure intended for swimming or recreational bathing, including in-ground and above-ground structures. It includes portable hot tubs, spas, portable spas, and non-portable wading pools. CPSC staff has interpreted "swimming pool" to include non-portable spas, non-portable hot tubs, and larger inflatable pools that can hold water over 24 inches deep ("larger inflatable pools"), regardless of whether the pool has a circulation system.*

Following is an explanation of what constitutes effective barriers to entry.

Residential *outdoor* in-ground, on-ground, and above-ground swimming pools and spas, larger inflatable pools that can hold water over 24 inches deep, portable spas and hot tubs (except as noted below), non-portable spas and hot tubs, and non-portable wading pools, ~~including existing pools and spas,~~ shall meet the following requirements:

- Fences/and or Walls.

The top of a fence or wall used as a barrier shall be a minimum of 48 inches (1219 mm) above grade. The bottom of a fence shall be no more than 4 inches (102 mm) above grade when that grade is a hard surface such as cement/asphalt. The bottom of a fence shall be no more than 2 inches (51 mm) above grade when that grade is a soft surface such as grass or ground/natural surface. All measurements shall be taken on the barrier side farthest from the pool.

Solid barriers such as brick or rock walls shall have no indentations or protrusions that can provide hand and/or foot holds. Normal construction tolerances and masonry joints are allowed.

Horizontal and vertical members: Where a fence is constructed of horizontal and vertical members, then:

- If the distance between the top of the horizontal members is less than 45 inches (1143 mm), the horizontal members shall be located on the swimming pool side of the fence. The spacing between the vertical members shall not exceed 1-3/4 inches (44 mm) in width. Any decorative cutout spacing within vertical members of the fence shall not exceed 1-3/4 inches (44 mm) in width.
- If the distance between the tops of the horizontal members is 45 inches (1143 mm) or more, the spacing between the vertical members shall not exceed 4 inches (102 mm) in width. Any decorative cutout spacing within vertical members of the fence shall not exceed 1-3/4 inches (44 mm) in width.

Diagonal members: For a fence made up of crossed wood, polyvinyl chloride (PVC), or metal strips (latticework), the maximum opening between the diagonal members shall not exceed 1-3/4 inches (44 mm).

Chain link fence: The maximum mesh size for a chain link fence shall not exceed 1-1/4 inches (32 mm) square [1-3/4 inches (44 mm) diagonal]. A larger mesh size may be used if slats fastened at the top or bottom of the fence are used to reduce mesh openings to no more than 1-3/4 inches (44 mm). See Figure A.

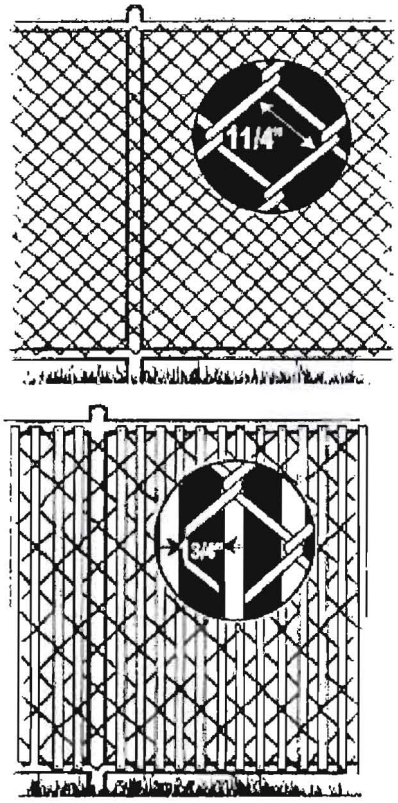


Figure A. Maximum chain link fence opening.

Mesh fencing: Removable mesh fencing for swimming pools shall meet the requirements of ASTM F2286-05: "Design and Performance Specification for Removable Mesh for Swimming Pools, Hot Tubs, and Spas".

Pool structure as barrier: For above-ground or on-ground pools, the pool structure itself may serve as a ground level barrier only if it is at least 48 inches (1219 mm) high. If the top of the pool structure is less than 48 inches (1219 mm) above grade and a barrier is mounted on top of the pool structure, the maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall be 4 inches (102 mm).

Ladder or steps: Where access to an above-ground pool is provided by a ladder or steps, then:

- The steps or ladder shall be designed to be secured, locked, or removed to prevent access, or
- A barrier such as one described under "Fences and/or Walls," above, shall surround the steps or ladder.

➢ Access Gates.

Access gates shall meet the requirements of Fences and/or Walls (above) and shall be equipped to accommodate a locking device.

Pedestrian access gates shall open outward away from the pool and shall be self-closing and self-latching. A locking device shall be included in the gate design.

Where the release mechanism of the self-latching device is less than 54 inches (1372 mm) from the bottom of the gate, the release mechanism and openings must comply with the following:

- The release mechanism shall be on the pool side of the gate at least 3 inches (76 mm) below the top of the gate, and
- The gate and barrier shall have no opening greater than ½ inch (13 mm) within 18 inches (457 mm) of the release mechanism.

Access gates used with removable mesh fencing systems must meet the requirements of the access gates, above -- i.e., manual "layback" entrances are not considered to meet the requirement.

Gates other than for pedestrian access shall be equipped with a self-latching device.

➢ Dwelling walls.

For swimming pools or spas where dwelling walls serve as a part of the barrier, one of the following (an audible alarm system or a power safety cover) shall be in place:

- Audible alarm system. A door in the wall that provides direct access to the pool shall be equipped with an audible alarm system meeting Underwriters Laboratories Inc. (UL) standard UL 2017 *General-Purpose Signaling Devices and Systems,* Section 77, Residential Water Hazard Entrance Alarm Equipment.
    i. The Alarm system shall be equipped with a manual means to temporarily deactivate the alarm for not more than 15 seconds.
    ii. The deactivation means shall be located not less than 54 inches (1372 mm) from the floor or threshold of the door.
- Power Safety Cover. A power safety cover for swimming pools or a manual **lockable** safety cover for non-portable spas and non-portable hot tubs that meets the requirements of ASTM F1346 *Performance Specification for Safety Covers and Labeling Requirements for All Covers for Swimming Pools, Spas, and Hot Tubs.*

Residential outdoor portable spas and residential outdoor portable hot tubs. Residential outdoor portable spas and residential outdoor portable hot tubs are exempt from the "Fences and/or Walls" requirements, if and only if, they have a lockable manual safety cover that complies with ASTM F1346.

All Barriers. All barriers shall be located so as to prohibit permanent structures, equipment, or similar objects from being used to climb the barriers.

Additional Layers of Protection—Barriers. Additional layers of protection are available. These are not required for meeting the minimum eligibility requirements for purposes of the VGB Pool and Spa Safety Grant Program, but CPSC encourages their use. See Section III below.

## II. Entrapment.

### A. All pools and spas constructed or installed after June 23, 2012, shall be equipped with devices and systems designed to prevent entrapment by pool or spa drains.

This means that for purposes of the grant program, all pools and spas constructed or installed after June 23, 2012, both residential and public, must be equipped with devices and systems designed to prevent entrapment by pool or spa drains. Devices and systems designed to prevent entrapment by pool or spa drains may include multiple drain systems (including pools without a single main drain), a safety vacuum release system, a suction-limiting vent system, a gravity drainage system, an automatic pump shut-off system, ~~an unblockable drain cover,~~ or drain disablement. The presence of any one of these devices or systems satisfies this requirement. Portable spas certified to UL 1563 by a Nationally Recognized Testing Laboratory (NRTL) are considered to comply with the entrapment prevention provisions of the Act.

### B. Pools and spas ~~built more than one year after the date of the enactment of this title~~ constructed or installed after June 23, 2012 shall have—

#### a. More than one drain;

**b. One or more unblockable drains; or**

**c. No single main drain.**

This section applies to public and residential pools ~~built more than one year after the date of enactment of the State statute~~ constructed or installed after June 23, 2012. The pool or spa ~~built more than one year after the date of enactment~~ constructed or installed after June 23, 2012 must have more than one drain, one or more unblockable drains, or no main drain.

More than one drain: A pool with two fully submerged suction outlets per pump, with drain cover centers at least 3 feet apart, would constitute a pool with more than one drain. A pool with a multiple drain system *per pump* would also constitute a pool with more than one drain.

One or more unblockable drains: An unblockable drain is a drain of any size and shape that a human body cannot sufficiently block to create a suction entrapment hazard. An unblockable drain may include:

- drains with dimensions greater than of 18" x 23", which represent the shoulder to waist measurements of the 99$^{th}$ percentile adult male;
- drain configurations that prevent a seal from occurring; ~~(large aspect cover, such as 18" x 23" or larger cover)~~ long channels that cannot be blocked by the body (conceptual Figure a.);
- large outlet grate (diagonal measure of 29" or more) (conceptual Figure b.);
- circulation designs that do not include fully submerged suction outlets.

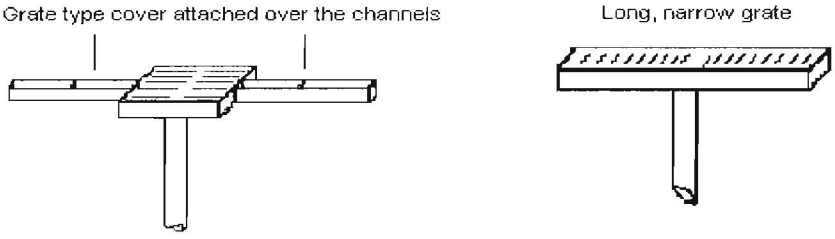


Figure a. Long Channel Figure b. Large Grate

**Conceptual Unblockable Drain Configurations**

No single main drain. A single main drain is a submerged suction outlet, with or without a skimmer, connected to a dedicated pool pump. It is possible for a pool to be constructed with more than one single main drain. A pool with more than one single main drain would also violate the requirement for no single main drain.

**C. Every swimming pool and spa constructed or installed after June 23, 2012 that has a main drain, other than an unblockable drain, shall be equipped with a drain cover that meets the consumer product safety standard established by section 1404 of the Virginia Graeme Baker Pool and Spa Safety Act.**

This applies to residential swimming pools and spas constructed after June 23, 2012 that do not have unblockable drains. Residential and public swimming pools with drains that are blockable must be equipped with a drain cover that meets ~~ASME/ANSI A112.19.8~~ ANSI/APSP-16-2011. (ANSI/APSP – 16 -2011 is the successor standard to ASME/ANSI A112-19.8. The standards are virtually identical.)

**D. Periodic notification shall be provided to owners of residential swimming pools or spas about compliance with the entrapment protection standards of the ~~ASME/ANSI A112.19.8~~ ANSI/APSP-16-2011 performance standard. ~~or any successor standard.~~**

The State (or political subdivision) shall ensure that periodic notification is provided to owners of residential swimming pools or spas about the compliance with the entrapment protection standards of ~~ASME/ANSI A112.19.8~~ ANSI/APSP -16-2011 performance standard., ~~or any successor standard.~~

**E. No liability inference associated with state (or political subdivision) notification requirement.—The minimum State (or political subdivision) law notification**

**requirement under paragraph (D) shall not be construed to imply any liability on the part of a State (or political subdivision) related to that requirement.**

The notification requirement does not impart any liability to the State (or political subdivision) in the event of an entrapment incident.

*Please note that what follows on the next page represents requirements that a State (or political subdivision) may wish to consider. A State (or political subdivision) statute need not require these basic access-related safety devices and equipment in order to be eligible for a grant.*

III. "Basic Access-Related Safety Devices and Equipment"

**A. Window Guards.**

A window in a wall that allows access to the pool may be equipped with window guards that limit access or be affixed with a childproof device to limit the window opening to less than 4 inches. The window guard shall meet ASTM F2006 *Safety Specification for Window Fall Prevention Devices for Non-Emergency Escape (Egress) and Rescue (Ingress) Windows.*

**B. Swimming Pool Alarms.**

A pool alarm may be used to provide warning that a pool has been entered. A pool-based alarm may be either a surface or subsurface alarm. Surface alarms float on a pool's surface and are activated by waves in the pool. Subsurface alarms respond to pressure waves under the water surface, generated by the displacement of water when an object enters the pool. Perimeter alarms, if used, should be used in conjunction with barriers meeting the barrier requirements of section (a). All alarms shall meet the requirements of ASTM F2208 *Standard Specification for Pool Alarms.*

# Tab B

# U.S. Consumer Product Safety Commission

# Technical Guidance for Section 1406 of the Virginia Graeme Baker Pool and Spa Safety Act: Minimum Requirements for Grant Eligibility[4]

## ~~July 2011~~ February 2012

Section 1405 of the Virginia Graeme Baker Pool and Spa Safety Act ("Act") specifies that the Commission shall establish a pool and spa safety grant program to encourage States or political subdivisions of a State to enact statutes that address the prevention of child drowning by requiring barriers to pool entry and anti-entrapment devices and systems.[5]

Section 1406 of the Act specifies the *minimum* requirements States or political subdivisions of a State must meet to be eligible to apply for a grant under the Act's grant program. To provide assistance to States or political subdivisions of a State that may be considering enacting or amending existing statutes related to pool and spa safety, the U.S. Consumer Product Safety Commission (CPSC) staff prepared a September 2008 draft guidance document that described technical issues for consideration in connection with the requirements of Section 1406 of the Act and asked for public comment.[6] This final guidance document incorporates changes based on public comments to the September 2008 draft guidance and changes made to the Act subsequent to its enactment.

To be eligible for a grant, a State or a political subdivision of a State must have certain barrier protection and entrapment prevention requirements in place. These requirements, with accompanying technical guidance, are discussed below.[7] These requirements are *minimum*

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[4] A copy of the Virginia Graeme Baker Pool and Spa Safety Act can be accessed at: www.poolsafety.gov/pool-spa-safety-act/read/~~ssa.pdf~~. The Act established a grant program for States. The 2011 Appropriations Bill for the CPSC amended the term "State" in the Act to include any political subdivision of a State. "For purposes of eligibility for the grants authorized under Section 1405, such term shall also include any political subdivision of a State." Pub. L. No. 112-10 [H.R. 1473], § 1576, 125 Stat. 38 (2011).

[5] Funds were appropriated for Fiscal Year (FY) 2009 (with obligation authority through September 30, 2010) and for FY 2010 (with obligation authority through September 30, 2011). Funds also have been appropriated for FY 2011 (with obligation authority through September 30, 2012) and FY 2012 (with obligation authority through September 30, 2013.

[6] The 2008 draft guidance document is available at: www.poolsafety.gov/pssa1406/pubcom.html. The public comments are available at: www.cpsc.gov/library/foia/foia09/pubcom/pssa10202008.pdf.

[7] As specified in the Act, the Commission shall use these requirements solely for the purpose of determining eligibility for a grant, and not for other enforcement purposes.

requirements, and CPSC staff notes that States and political subdivisions of a State are free and *encouraged* to go above and beyond these minimum requirements, so long as the additional requirements do not conflict with the Act.

# 1. Barriers[8]

The Act defines "swimming pool" or "spa" as "any outdoor or indoor structure intended for swimming or recreational bathing, including in-ground and above-ground structures, and includes portable hot tubs, spas, portable spas, and non-portable wading pools". P.L. No.110-140, §1403. *The CPSC staff interprets this definition to* ***also*** *include on-ground pools and spas, non-portable spas, non-portable hot tubs, and larger inflatable pools that can hold water over 24 inches deep, regardless of whether the pool has a circulation system.*

To be eligible for a grant, the State or political subdivision of a State must have in place a statute that requires the enclosure of all outdoor residential pools and spas constructed or installed after June 23, 2012, by barrier to entry. Pub. L. No. 110-140, §1406(a)(1)(A)(i). *The ~~CPSC staff interprets this to include existing pools and spas.~~* Further, according to the Act, the barriers to entry should effectively provide protection against potential drowning or near-drowning of young children by preventing them from gaining unsupervised and unfettered access to outdoor residential swimming pools and spas.

The CPSC staff's judgment and interpretation as to what an effective *minimum* barrier should entail, for the purposes of applying for a grant under the Act, follows. As already noted, these requirements are *minimum* requirements, and CPSC staff notes that States and political subdivisions of a State are free and encouraged to go above and beyond these minimum requirements, so long as the additional requirements do not conflict with the Act.

**Residential *outdoor* in-ground, on-ground, and above-ground swimming pools and spas, larger inflatable pools that can hold water over 24 inches deep, non-portable spas and hot tubs, portable spas and hot tubs (except as noted in Sec. 1.4 below), and non-portable wading pools, ~~including existing pools and spas,~~ constructed or installed after June 23, 2012,** shall have a barrier which complies with the following requirements:

**1.1 Fences and/or Walls**

**1.1.1** The top of a fence or wall used as a barrier shall be a minimum of 48 inches (1219 mm) above grade. The bottom of a fence shall be no more than 4 inches (102 mm) above grade when that grade is a hard surface, such as cement/asphalt. The bottom of a fence shall be no more than 2 inches (51 mm) above grade when that grade is a soft surface, such as grass or ground/natural surface. All measurements shall be taken on the barrier side farthest from the pool.

[8] This section is based on *CPSC Safety Barrier Guidelines for Home Pools*, CPSC Publication No. 362, U.S. Consumer Product Safety Commission, Washington, D.C.

**1.1.1.1** Solid barriers such as brick or rock walls, shall have no indentations or protrusions that can provide hand and/or foot holds. Normal construction tolerances and masonry joints are allowed.

**1.1.2** Where a barrier (fence) is constructed of horizontal and vertical members, then:

**1.1.2.1** If the distance between the tops of the horizontal members is less than 45 inches (1143 mm), the horizontal members shall be located on the swimming pool side of the fence. The spacing between the vertical members shall not exceed 1 ¾ inches (44 mm) in width.

**1.1.2.2** If the distance between the tops of the horizontal members is 45 inches (1143 mm) or more, the spacing between the vertical members of the fence shall not exceed 4 inches (102 mm) in width.

**1.1.2.3** Any decorative cutout spacing within vertical members of the fence shall not exceed 1 ¾ inches (44 mm) in width.

**1.1.3** The maximum mesh size for a chain link fence shall not exceed 1¼ inches (32 mm) square [1 ¾ inches (44 mm) diagonal.] A larger mesh size may be used if slats fastened at the top or bottom of the fence are used to reduce mesh openings to no more than 1 ¾ inches (44 mm). See Figure A on the next page.

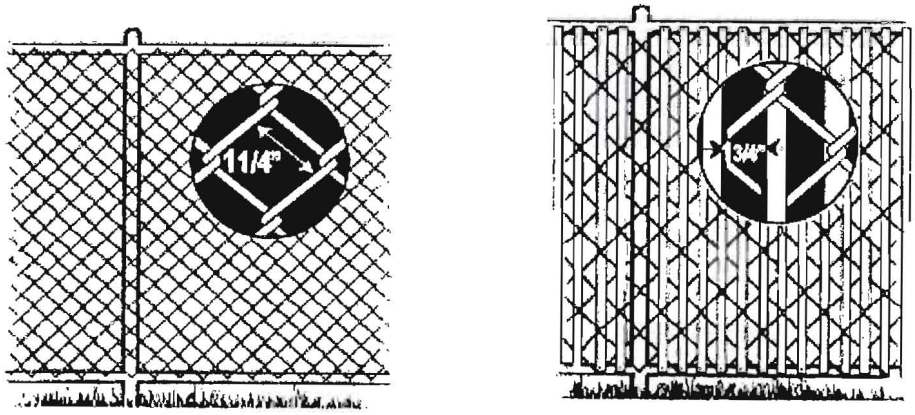


Figure A. Maximum chain link fence opening.

**1.1.4** For a barrier (fence) made up of crossed wood, polyvinyl chloride (PVC), or metal strips (latticework), the maximum opening between the diagonal members shall not exceed 1 ¾ inches (44 mm).

**1.1.5** Removable mesh fencing for swimming pools should meet the requirements of ASTM F2286-05: "Design and Performance Specification for Removable Mesh Fencing for Swimming Pools, Hot Tubs, and Spas."

**1.1.6** For above-ground or on-ground pools, the pool structure itself may serve as a ground level barrier only if it is at least 48 inches (1219 mm) high. If the top of the pool structure is less than 48 inches above grade and a barrier is mounted on top of the pool structure to make it at least 48 inches (1219 mm) high, then the maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall be 4 inches (102 mm). See also Section 1.5 below.

**1.1.6.1** Where access to an above-ground pool is provided by a ladder or steps, then:

**1.1.6.1.1** The steps or ladder shall be designed to be secured, locked, or removed to prevent access, or

**1.1.6.1.2** A barrier such as one described in Section 1.1.1 above shall surround the steps or ladder.

## 1.2 Access Gates

**1.2.1** Access gates shall meet the requirements of Section 1.1 (Fences and/or Walls) above and shall be equipped to accommodate a locking device.

**1.2.2** Pedestrian access gates shall open outward away from the pool and shall be self-closing and self-latching. A locking device shall be included in the gate design. Where the release mechanism of the self-latching device is less than 54 inches (1372 mm) from the bottom of the gate, the release mechanism and openings must comply with the following:

**1.2.2.1** The release mechanism shall be on the pool side of the gate at least 3 inches (76 mm) below the top of the gate, and

**1.2.2.2** The gate and barrier shall have no opening greater than ½ inch (13 mm) within 18 inches (457 mm) of the release mechanism.

**1.2.3** Access gates used with removable mesh fencing systems must meet the requirements of Section 1.2.1, i.e., manual "layback" entrances do not meet the requirement.

**1.2.4** Gates other than those for pedestrian access shall be equipped with a self-latching device.

## 1.3 Dwelling Walls

**1.3.1** For swimming pools or spas where dwelling walls serve as a part of a barrier, one of the following shall be in place:

**1.3.1.1** A door in the wall that provides direct access to the pool shall be equipped with an audible alarm system meeting Underwriters Laboratories Inc. (UL) standard UL 2017 *General-Purpose Signaling Devices and Systems*, Section 77, Residential Water Hazard Entrance Alarm Equipment.

**1.3.1.1.1** The alarm system shall be equipped with a manual means to temporarily deactivate the alarm for not more than 15 seconds.

**1.3.1.1.2** The deactivation means shall be located not less than 54 inches (1372 mm) from the floor or threshold of the door.

**1.3.1.2** A power safety cover for swimming pools or a manual **lockable** safety cover for non-portable spas and non-portable hot tubs that meets the requirements of ASTM F1346 *Performance Specification for Safety Covers and Labeling Requirements for All Covers for Swimming Pools, Spas, and Hot Tubs.*

**1.4 Residential outdoor portable spas and residential outdoor portable hot tubs** are exempt from the requirements listed in Sections 1.1 (Fences and/or Walls), 1.2 (Access Gates), and 1.3 (Dwelling Walls) above. However, if fences and/or walls meeting the requirements of Sections 1.1 – 1.3 are not used as a barrier to entry, then a **lockable** manual safety cover that complies with ASTM F1346 must be used.

**1.5 All barriers** should be located so as to prohibit permanent structures, equipment, or similar objects from being used to climb the barriers.

**1.6. Additional Layers of Protection** that provide a barrier to entry are available. These are not required for meeting the minimum eligibility requirements for purposes of the Act's Grant Program, but CPSC encourages their use. See Section 3 below.

## 2. Entrapment Prevention Devices

Section 1406 of the Act also sets forth that States or political subdivisions of a State, in order to be eligible for a grant, must have in their statutes certain minimum requirements to prevent entrapment. These requirements apply to all pools and spas, public and residential, including in-ground and above-ground pools, portable and non-portable hot tubs, portable and non-portable spas, and non-portable wading pools constructed or installed after June 23, 2012. Pub. L. No.110-140, §1403.

These entrapment prevention requirements are *minimum* requirements the States or political subdivisions of a State must include in their statutes to be eligible for a grant under the Act, and

States and political subdivisions of a State are free and encouraged to go above and beyond these requirements so long as the additional requirements do not conflict with the Act.

The CPSC's judgment and interpretation as to what the minimum requirements should entail, for purposes of applying for a grant, follow:

**Residential and public outdoor and indoor in-ground, on-ground, and above-ground swimming pools and spas, larger inflatable pools that can hold water over 24 inches deep (regardless of whether the pool has a circulation system), portable and non-portable spas, portable and non-portable hot tubs, and non-portable wading pools, ~~including existing pools and spas~~ constructed or installed after June 23, 2012 (except where noted below),** shall meet the following entrapment prevention requirements:

**2.1** All pools and spas constructed or installed after June 23, 2012 shall be equipped with anti-entrapment devices or systems designed to prevent suction entrapment by pool or spa drains. Pub. L. No. 110-140, §1406(a)(1)(A)(ii). Such systems include multiple drain systems (including pools without a single main drain), a safety vacuum release system, a suction-limiting vent system, a gravity drainage system, an automatic pump shut-off system, ~~an unblockable drain cover,~~ or drain disablement.

**2.1.1** Portable spas certified to UL 1563 by a Nationally Recognized Testing Laboratory (NRTL) are considered to comply with the entrapment prevention provisions of the Act.

**2.2** Pools and spas constructed more than one year after enactment of the State's or political subdivision of a State's statute establishing requirements that comply with provisions of the Act shall have:
(a) more than one drain; or
(b) one or more unblockable drains; or
(c) no main drain.
Pub. L. No. 110-140, §1406(a)(1)(A)(iii).

**2.2.1** CPSC staff interprets a multiple main drain system without isolation capability with covers on each submerged suction outlet that meet ~~ASME/ANSI A112.19.8 – 2007~~[9] ANSI/APSP-16-2011 Standard Suction Fittings for Use in Swimming Pools, Wading Pools, Spas, and Hot Tubs to meet the requirements for "more than 1 drain."

**2.3** All pools and spas with a main drain, other than an unblockable drain, shall be required to use a suction outlet cover that meets ASME/ANSI A112.19.8 or its successor standard. Pub. L. No. 110-140, §1406(a)(1)(A)(iv). ANSI/APSP-16-

[9] ~~This is the most current version of ASME/ANSI A112.19.8. It includes an addendum, A112.19.8a-2008. If a successor standard to ASME/ANSI A112.19.8 is proposed, and the U.S. Consumer Product Safety Commission determines the proposed revision is in the public interest, it will incorporate the revision into the standard after providing 30 days notice to the public.~~

2011 is the successor standard to ASME/ANSI A112.19.8. The standards are virtually identical.

# 3. Additional Layers of Protection

Although not required for purposes of meeting minimum eligibility requirements for applying for grants under the Act's grant program, States or political subdivisions of a State are encouraged to consider requirements for additional layers of protection to supplement the requirements described in Section 1 (Barriers) and Section 2 (Entrapment Prevention Devices) above. The following devices have been identified by CPSC staff as additional safety requirements that States or political subdivisions of a State are encouraged to include in their statutes.

## 3.1 Window Guards

**3.1.1** A window in a wall that allows access to the pool or spa may be equipped with window guards that limit access or be affixed with a childproof device to limit the window opening to less than 4 inches (102 mm). The window guard shall meet ASTM F2006 *Safety Specification for Window Fall Prevention Devices for Non-Emergency Escape (Egress) and Rescue (Ingress) Windows.*

## 3.2 Swimming Pool Alarms

**3.2.1** A pool alarm may be used to provide warning that a pool has been entered. Surface and sub-surface pool-based alarms are available, as well as perimeter alarms that monitor the pool area. All alarms shall meet the requirements of ASTM F2208 *Standard Specification for Pool Alarms.*

**3.2.1.1** Surface alarms float on the pool's surface and are activated by waves in the pool. The device shall provide an alarm at the pool and within the residence and shall meet the requirements of ASTM F2208.

**3.2.1.2** Subsurface alarms respond to pressure waves under the water surface, generated by the displacement of water when an object enters the pool. The device shall provide an alarm at the pool and within the residence and shall meet the requirements of ASTM F2208.

**3.2.2** Perimeter alarms, used in conjunction with barriers meeting the requirements of Sections 1.1 – 1.3 above shall meet the performance requirements of ASTM F2208.

# 4. National Consensus Standards and Guides

## *Barriers*

- **Fencing**
  - **ASTM F1908 - 08** *Standard Guide for Fences for Residential Outdoor Swimming Pools, Hot Tubs, and Spas*
    www.astm.org/Standards/F1908.htm

  - **ASTM F2286 - 05** *Standard Design and Performance Specifications for Removable Mesh Fencing for Swimming Pools, Hot Tubs, and Spas*
    www.astm.org/Standards/F2286.htm

- **Pool, Spa, and Hot Tub Covers**
  - **ASTM F1346 - 91(2003)** *Standard Performance Specification for Safety Covers and Labeling Requirements for All Covers for Swimming Pools, Spas and Hot Tubs*
    www.astm.org/Standards/F1346.htm

- **Windows**
  - **ASTM F2006** *Safety Specification for Window Fall Prevention Devices for Non-Emergency Escape (Egress) and Rescue (Ingress) Windows*
    www.astm.org/Standards/F2006.htm

- **Entrance Alarms**
  - **UL 2017** *General –Purpose Signaling Devices and Systems, Section 77, Residential Water Hazard Entrance Alarm Equipment*
    www.comm-2000.com

- **Residential Pool Alarms**
  - **ASTM F2208 - 08** *Standard Safety Specification for Residential Pool Alarms*
    www.astm.org/Standards/F2208.htm

- **General**
  - **ASTM F2518 - 06** *Standard Guide for Use of a Residential Swimming Pool, Spa, and Hot Tub Safety Audit to Prevent Unintentional Drowning*
    www.astm.org/Standards/F2518.htm

## *Entrapment Prevention*

- **Suction Fittings**
  - **ASME/ANSI A112.19.8 - 2007 (addendum 8a-2008)** *Suction Fittings for Use in Swimming Pools, Wading pools, Spas, and Hot Tubs*
    www.asme.org (Enter *A112.19.8* into "Search ASME" field)
    or

http://webstore.ansi.org (Enter *A112.19.8* into "Enter Document Number" field)

**ANSI/APSP -16-2011** *Standard Suction Fittings for Use in Swimming Pools, wading pools, Spas, and Hot Tubs*
www.apsp.org/utility/showProduct/index.cfm?objectID=2591

- **Safety Vacuum Release Systems**
  - **ASTM F2387 - 04** *Standard Specification for Manufactured Safety Vacuum Release Systems (SVRS) for Swimming Pools, Spas, and Hot Tubs*
    www.astm.org/Standards/F2387.html
  - **ASME/ANSI A112.19.17 - 2002** *Manufactured Safety Vacuum Release Systems (SVRS) for Residential and Commercial Swimming Pool, Spas, Hot Tub and Wading Pool Suction Systems*
    www.asme.org (Enter *A112.19.17* into "Search ASME" field)
    or
    http://webstore.ansi.org (Enter A112.19.17 into "Enter Document Number" field)

## 5. General Note about the Virginia Graeme Baker Pool and Spa Safety Act

Section 1405(d) of the Act, as amended, requires that any State or political subdivision of a State receiving grant funds shall use at least 50 percent of the grant amount to hire and train enforcement personnel for implementation and enforcement of the State's or political subdivision of a State's swimming pool and spa safety law. The remaining money shall be used to educate pool construction, installation, and service companies about the standards and to educate pool owners, operators, and the public about pool safety and drowning and entrapment prevention, as well as to defray any administrative costs associated with training and education programs. A copy of the Act can be accessed at ~~www.poolsafety.gov/pssa.pdf~~. www.poolsafely.gov/pool-spa-safety-act.read/.