



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

**VOTE SHEET**

Date: **MAR 30 2010**

TO : The Commission  
 Todd Stevenson, Secretary

THROUGH: Maruta Z. Budetti, Executive Director *mgB*

FROM : Cheryl Falvey, General Counsel *CF*  
 Philip L. Chao, Assistant General Counsel, RAD *PLC*  
 Barbara E. Little, Attorney *BEL*

SUBJECT : Virginia Graeme Baker Pool and Spa Safety Act; Final Interpretive Rule on Unblockable Drains

Ballot Vote Due April 6, 2010

Attached is a draft final interpretive rule interpreting the term “unblockable drain” as used in the Virginia Graeme Baker Pool and Spa Safety Act.

Please indicate your vote on the following options.

- I. Approve the publication of the draft final interpretive rule in the *Federal Register* without change.

\_\_\_\_\_  
 Signature

\_\_\_\_\_  
 Date

- II. Approve the publication of the draft final interpretive rule in the *Federal Register* with changes (please specify changes):

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

\_\_\_\_\_  
 Signature

\_\_\_\_\_  
 Date

*ELK 3/30/2010*  
 CLEARED FOR PUBLIC RELEASE  
 UNDER CPSC 6(b)(1)

III. Do not approve publication of the draft final interpretive rule in the *Federal Register*.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

IV. Take other action (please specify):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**CONSUMER PRODUCT SAFETY COMMISSION**

16 CFR Part 1450

**Virginia Graeme Baker Pool and Spa Safety Act; Interpretation of  
Unblockable Drain**

**AGENCY:** Consumer Product Safety Commission.

**ACTION:** Final interpretive rule.

**SUMMARY:** The Consumer Product Safety Commission ("Commission," "CPSC" or "we") is issuing its interpretation of the term "unblockable drain" as used in the Virginia Graeme Baker Pool and Spa Safety Act ( "VGB Act").

**DATES:** This rule is effective [INSERT DATE OF PUBLICATION IN FEDERAL REGISTER].

**FOR FURTHER INFORMATION CONTACT:** Troy Whitfield, Lead Compliance Officer, Office of Compliance, Consumer Product Safety Commission, 4330 East West Highway, Bethesda, Maryland 20814-4408; telephone (301) 504-7548 or email twhitfield@cpsc.gov.

**SUPPLEMENTARY INFORMATION:**

**A. Background**

The Virginia Graeme Baker Pool and Spa Safety Act, P.L. 110-140, Title XIV ("the VGB Act") was signed into law on December 19, 2007 and became effective on December 19, 2008. The VGB

Act's purpose is to prevent drain entrapment and child drowning in swimming pools and spas.

Section 1404(c)(1)(A)(i) of the VGB Act requires that each public pool and spa in the United States be equipped with drain covers that comply with the ASME/ANSI A112.19.8 performance standard or any successor standard. (The ASME/ANSI A112.19.8-2007 standard includes addenda which ASME codes and standards identify as A112.19.8a [for corrections to the UV light testing procedure] and 8b [for outlet covers used on self-contained spas]. The addenda are part of the 2007 version of the standard and only include pages with changed or revised items. For simplicity, any reference to ASME/ANSI A112.19.8-2007 in this preamble is intended to incorporate the associated addenda.)

Section 1404(c)(1)(A)(ii) of the VGB Act requires that each public pool and spa in the United States with a single main drain other than an unblockable drain be equipped, at a minimum, with one or more of the following:

- safety vacuum release system;
- suction-limiting vent system;
- gravity drainage system;
- automatic pump shut-off system;
- drain disablement; and/or

- any other system determined by the Commission to be equally effective as, or better than, the enumerated systems at preventing or eliminating the risk of injury or death associated with pool drainage systems.

For purposes of this preamble, we will refer to these systems collectively as "secondary anti-entrapment systems." Thus, under the VGB Act, public pools or spas with single main drains other than unblockable drains must be equipped with a secondary anti-entrapment system. Section 1403(7) of the VGB Act defines an "unblockable drain" as "a drain of any size and shape that a human body cannot sufficiently block to create a suction entrapment hazard."

In July 2009, CPSC staff issued draft technical guidance concerning an unblockable drain on the CPSC website (at <http://www.poolsafety.gov/unblockable.pdf>) and invited comment on this guidance. The draft technical guidance included specifications for a drain cover such that, when the drain cover is attached to a drain, the now-covered drain constitutes an "unblockable drain." As an unblockable drain, this drain would not require a secondary anti-entrapment system.

On October 21, 2009, the Commission issued a notice in the Federal Register (74 FR 54301) announcing that it would be conducting a public hearing to receive views from all interested

parties about the draft guidance regarding unblockable drains. The Commission invited public participation at this hearing. On November 4, 2009, the Commission conducted a public hearing on the staff's draft technical guidance and heard presentations from nine individuals.

Following the hearing, CPSC staff revised its interpretation of an unblockable drain and presented it to the Commission for consideration. On March 1, 2010, the Commission voted to instruct the staff to prepare a proposed interpretive rule regarding unblockable drains, consistent with the staff's interpretation.<sup>1</sup>

#### **B. Response to Comments and Interpretation**

CPSC staff based the "July 2009 Staff Draft Technical Guidance on Unblockable Drains" on the requirements for drain covers found in ASME/ANSI A112.19.8: "Based on the dimensions of the blocking element found in the standard, an outlet cover with measurements in excess of 18" x 23" (or a diagonal

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<sup>1</sup> Commissioner Robert Adler, Commissioner Nancy Nord, and Commissioner Anne Northup voted to direct the staff to draft a proposed interpretive rule on unblockable drain covers, consistent with the definition in the staff memorandum dated February 3, 2010. Chairman Inez Tenenbaum and Commissioner Thomas Moore voted against directing the staff to draft a proposed interpretive rule on unblockable drain covers. Chairman Inez Tenenbaum, Commissioner Robert Adler, Commissioner Thomas Moore, and Commissioner Anne Northup each issued a statement, a copy of which is available from the Commission's Office of the Secretary or from the Commission's Web site, <http://www.cpsc.gov>. On March 22, 2010, Commissioner Robert Adler, Commissioner Nancy Nord, and Commissioner Anne Northup voted to direct the staff to issue a final interpretive rule on unblockable drains. A new ballot vote was prepared for voting on a final interpretive rule on unblockable drains. [OUTCOME OF COMMISSION VOTE WILL BE INSERTED HERE].

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. 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 dimension 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)."

We received several comments as a result of the November 4, 2009 hearing and our interpretation of unblockable drains. We describe and respond to the comments in part B of this document.

1. *Diagonal Measurement:* Several comments stated that the interpretation of an unblockable drain should not include a 29-

inch diagonal requirement as it was an over-simplification of the standard and not found in the ASME/ANSI A112.19.8 standard.

*Response:* The Commission agrees with these comments and has removed the 29-inch diagonal reference.

2. *18" x 23" Dimension:* Several commenters questioned the use of the 18" x 23" measurement. Some believed it was too small, while others claimed it was unnecessarily restrictive. Some commenters also indicated that the definition should make clear that the 18" x 23" measurement is intended to represent a blocked portion of the cover for consideration of the remaining open flow area, not simply the dimensions of the cover.

*Response:* The 18" x 23" dimension represents the dimensions of a 99<sup>th</sup> percentile male and mirrors the measurement used in the ASME/ANSI A112.19.8 standard referenced in the VGB Act. The Commission continues to believe this dimension is appropriate. The Commission agrees that the 18" x 23" dimension is intended to reference the remaining open flow area, once shadowed, and has revised its definition to make this clear.

3. *Blocking Element.* One commenter stated that the blocking element was not representative of "human skin" and therefore did not fully represent a body's ability to adhere to or seal around an outlet cover.



*Response:* The Commission agrees that the blocking element does not replicate the properties of human skin. However, the Commission is relying on the industry standard that is referenced in the VGB Act to further its interpretation of unblockable drain, and is thus using the same blocking element dimensions that are referenced in ASME/ANSI A112.19.8. Whether a flexible membrane or a more rigid material is used, it is the remaining open area of the cover when shadowed by the blocking element that is the important factor for consideration.

4. *Layers of Protection:* There were several comments regarding the VGB Act's intent to use a "layers of protection" approach to address entrapment.

*Response:* The "layers of protection" are applicable to incidents involving children having unfettered access to swimming pools in residential locations. In these cases, barriers and warnings, such as, doors, door alarms, motion detectors, pool covers, fencing with self-closing, self-latching gates, etc., can all be used to delay and/or prevent access to the hazard. However, for entrapment incidents, the approach to prevention is different. There are five different types of entrapment: body, limb, evisceration, hair, and mechanical-related. The mechanisms of entrapment can be slightly different with each. The common element in all five entrapment scenarios

is the necessity of an outlet cover as a layer of protection. All five entrapment issues are addressed by the appropriate flow rating and size of the cover when the cover remains in place. Currently, the "back-up" systems mentioned as secondary requirements in the VGB Act address some, but not all, potential hazard patterns. The "back-up" systems primarily address suction body entrapment and may address some limb entrapments. However, these back-up systems do not address the hair and mechanical entrapments, or the evisceration injuries associated with entrapments. Moreover, the back-up devices require the incident to occur before they respond and, depending on the type of entrapment and the circulation system present, the response may not prevent the entrapment or the injury.

Based on consideration of these comments, the Commission is creating a new § 1450.2(b) to interpret "unblockable drain" as follows:

A suction outlet defined as all components, including the sump and/or body, cover/grate, and hardware such that its perforated (open) area cannot be shadowed by the area of the 18" x 23" Body Blocking Element of ASME/ANSI A112.19.8-2007 and that the rated flow through the remaining open area (beyond the shadowed portion) cannot create a suction force in excess of

the removal force values in Table 1 of that Standard. All suction outlet covers, manufactured or field-fabricated, shall be certified as meeting the applicable requirements of the ASME/ANSI A112.19.8 standard.

**C. Codification**

The Commission is currently engaged in a separate interpretation of another term, "public accommodations facility," in the VGB Act. If finalized, this interpretation would be codified as a part of CFR part 1450, where § 1450.1 would describe the scope of part 1450 and § 1450.2(a) would contain the definition of "public accommodations facility." Thus, this rule adds the new CFR part 1450, defines "unblockable drain" at 1450.2(b) and indicates that 1450.1 and 1450.2(a) are reserved.

**D. Effective Date**

Section 1405 of the VGB Act directs the Commission to establish a grant program to provide assistance to eligible States for specific uses related to pool and spa safety. The Commission has entered into an interagency agreement with the Centers for Disease Control and Prevention (CDC)/National Center for Injury Control and Prevention (NCIPC) to administer the grant program. CDC will be publishing the Funding Opportunity

Announcement related to the grant program in early April. Because potential State applicants need a definitive understanding of the law in order to qualify for grant monies, and because CDC intends to publish the Funding Opportunity Announcement in April, this final rule resulting is effective upon publication. The rule does not impose obligations on regulated parties beyond those imposed by the VGB Act. In addition, as mentioned in the "Dates" section of this preamble, the Commission has already received and considered comments and/or presentations with regard to this issue on two separate occasions: (1) in response to the "July 2009 Staff Draft Technical Guidance on Unblockable Drains" and (2) during the November 4, 2009 Commission public hearing. Therefore, there is no need to provide a delayed effective date in order to allow for regulated parties to prepare for the rule.

**List of Subjects in 16 CFR Part 1450**

Consumer protection, Infants and children, Law enforcement.

For the reasons stated above, the Commission amends part 1450 of title 16 of the Code of Federal Regulations to read as follows:

**PART 1450 - Virginia Graeme Baker Pool and Spa Safety Act**

**Regulations**

Sec.

1450.1 [Reserved].

1450.2 Definitions.

**Authority:** 15 U.S.C. 2051-2089, 86 Stat. 1207; 15 U.S.C. 8001-8008, 121 Stat. 1794.

§ 1450.1 [Reserved].

§ 1450.2 Definitions.

(a) [Reserved.]

(b) *Unblockable drain* includes a suction outlet defined as all components, including the sump and/or body, cover/grate, and hardware such that its perforated (open) area cannot be shadowed by the area of the 18" x 23" Body Blocking Element of ASME/ANSI A112.19.8-2007 and that the rated flow through the remaining open area (beyond the shadowed portion) cannot create a suction force in excess of the removal force values in Table 1 of that Standard. All suction outlet covers, manufactured or field-fabricated, shall be certified as meeting the applicable requirements of the ASME/ANSI A112.19.8 standard.

Dated:

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Todd A. Stevenson, Secretary  
Consumer Product Safety Commission