



April 18, 2023

**RE: Pool and Spa Drain Cover Safety**

Dear Sir or Madam:

The U.S. Consumer Product Safety Commission (CPSC) is reminding all public pool owners and operators of the importance of water safety as summer swim season approaches. Drowning remains the leading cause of death for children ages 1-5 and claims 298 lives on average every year in the United States.

We strongly urge all pool owners and operators to perform routine inspections, ensuring that compliant drain covers and systems are installed and functioning properly. Pools and spas lacking protective drain covers and secondary systems may subject swimmers to very strong suction forces capable of trapping clothing, hair, limbs, or an entire body underwater, leading to drowning. Even if the drain is compliant, we recommend replacement of drain covers that have passed the expiration date on the cover.

Complying with the Virginia Graeme Baker Pool and Spa Safety Act, 15 U.S.C. § 8001 *et seq.*, by ensuring that compliant pool drain covers and secondary anti-entrapment systems are installed to prevent serious injury or death of pool and spa users, is not only important for safety, it is required by federal law.

By law, all public pools and spas (which includes hotels, motels, and apartment complexes) must have ANSI/APSP-16 2017- compliant drain cover(s) installed. A second anti-entrapment system is also required when there is a single blockable main drain or drains on the same plane that are less than three feet apart.

Attached to this letter, please find educational materials with images and instructions to assist with conducting safety inspections. Additional pool-related safety resources can be found on our [Pool Safely](https://www.poolsafely.gov) website: <https://www.poolsafely.gov>. *Pool Safely* is a national public education campaign focused on reducing childhood drownings, submersion injuries, and entrapments.

If you have any additional questions, or if we can be of any assistance, please contact me at (301) 504-7418 or [JAlvarado@cpsc.gov](mailto:JAlvarado@cpsc.gov).

Sincerely,

Julio Alvarado  
Compliance Officer  
Division of Regulatory Enforcement



## Attachment A: Public Pool or Spa Drain Cover Check List

Please check the following when inspecting public pool or spa drain covers:

- ✓ **Compliance** Confirm that the pool or spa has the appropriate ASME/ANSI A112.19.8 2007 (or successor standard) compliant drain covers installed, including on the skimmer equalizer lines, by checking the certificate.<sup>1</sup> The drain cover certificate attests that the drain cover meets the ASME/ANSI A112.19.8 2007 or successor standard.
  - The pool manager should provide you with the professional engineer or registered design professional certification indicating that the field-fabricated cover complies with the ASME/ANSI A112.19.8 2007 or successor standard, which may include the flow rate, UV exposure (if applicable), and durability.
- ✓ **Label** Confirm that one of the following required labeling schemes are stamped on the drain covers.
  - ASME/ANSI A112.19.8 2007 standard or successor standard<sup>2</sup>;
  - VGB 2008 (or the year the successor standard was approved);
  - The swimmer logo; or a combination of any of these (Figure 1).



**Drain Cover Labels**

*Figure 1*

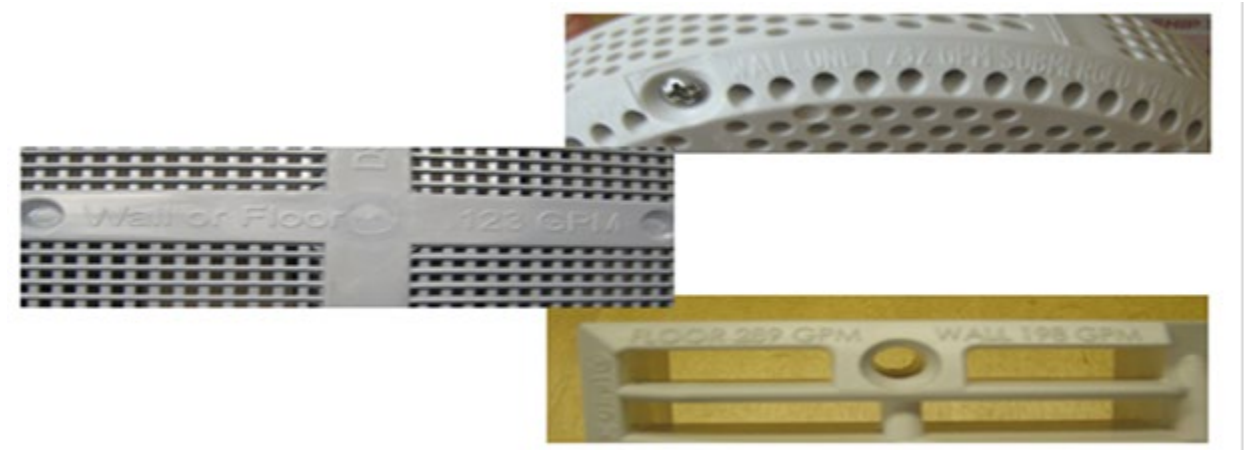
- ✓ **Integrity** Confirm that the drain covers are intact with no loose or missing screws. Check for signs of damage, like cracking or breakage that might impact the function of the cover or present sharp points that could scrape or cut a swimmer.
- ✓ **Lifespan** Confirm that the drain covers have not exceeded the manufacturer-recommended lifespan.

<sup>1</sup>[ANSI/APSP 16-2011 Standard](#). [ANSI/APSP/ICC 16-2017 Standard](#) effective May 24, 2021.

<sup>2</sup> Successor standards include ANSI/APSP 16-2011 and ANSI/APSP/ICC 16-2017.



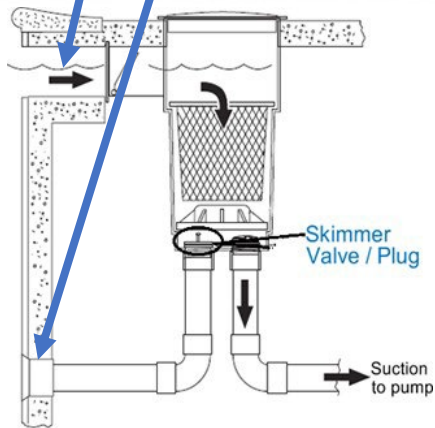
- ✓ **Material** Confirm field-fabricated drain covers are designed by a professional engineer or a registered design professional, pursuant to the requirements of the ASME/ANSI A112.19.8 2007 or successor standard.
- ✓ **GPM** Confirm that the drain cover displays a flow value in gallons per minute (GPM), indicating the maximum flow rate for which the cover has been approved (Figure 2).



### **GPM (gallons per minute) Labeling Example**

*Figure 2*

- ✓ **Performance** Confirm that the maximum flow rate of the pool or spa indicates it is at or below the maximum allowable gallons per minute (GPM) marked on the drain cover(s).
- ✓ **Secondary device** Confirm that the pool or spa has manufactured anti-entrapment drain covers that meet the ASME/ANSI A112.19.8 2007 or successor standard. If on a single main drain or there are multiple drains less than 3 feet apart, a secondary anti-entrapment system is required to be installed in the pool or spa. Refer to Attachment B.
- ✓ **Skimmer Equalizer Lines** (Figure 3) Confirm that lines are (1) covered with drain covers that meet the ASME/ANSI A112.19.8 2007 or successor standard, (2) plugged (using a tool), or (3) otherwise disabled (cemented over).



**Equalizer Line**  
*Figure 3*



## Attachment B: Secondary Anti-Entrapment Device or System Inspection Checklist

If there is only a single main drain or multiple drains less than 3 feet apart, a second anti-entrapment system must also be installed. The installation of a secondary anti-entrapment system would cease operation of the pump, reverse the circulation flow, or provide a vacuum release at a suction outlet, allowing an individual enough time to remove themselves from the suction outlet. These secondary systems may comprise one or more of the following:

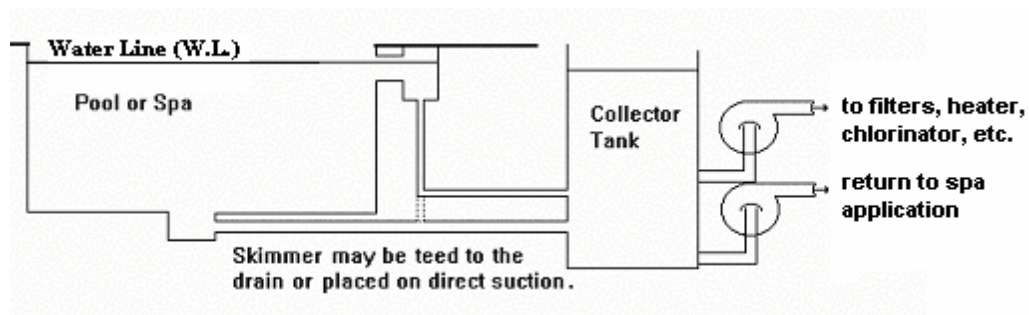
- **Safety Vacuum Release System (SVRS)** (Figure 4) – A SVRS that has been tested by an independent third party and conforms to the ASME/ANSI A112.19.17 or the ASTM F2387 standard.



Examples of Suction Vacuum Release Systems

Figure 4

- **Gravity drainage system** (Figure 5) – A gravity system that utilizes a collector or surge tank.

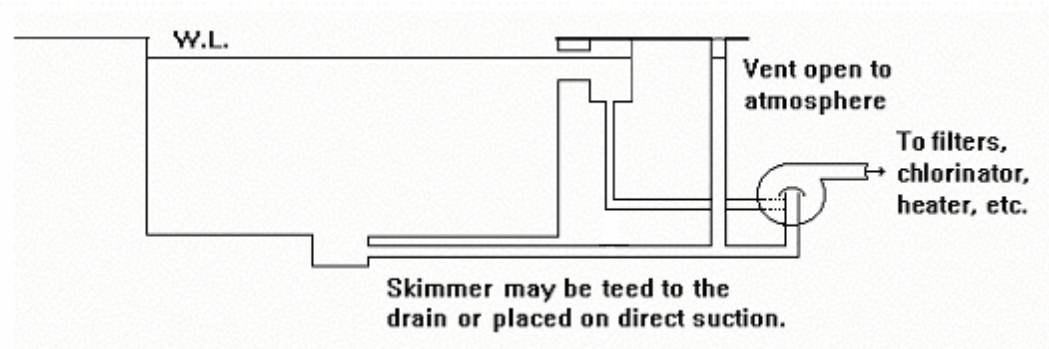


Conceptual Gravity Drainage System – Direct Suction Removed from the Pool

Figure 5



- **Suction-limiting vent system** (Figure 6) – A suction-limiting vent system with a tamper-resistant atmospheric opening.



**Conceptual Suction-Limiting Vent System to Relieve Main Drain Suction**  
*Figure 6*

- **Automatic pump shut-off system** (Figure 7) – A system like an SVRS that monitors the pump and automatically shuts off the pump if any abnormality in operation is detected.



**Automatic pump shut-off system with an external manual emergency shut-off button**  
*Figure 7*

- **Drain disablement** – A device or system that disables the drain. Alternatives include physically disconnecting the main drain suction line from the pump in the equipment room, plugging the main drain suction line and/or filling the sump with concrete, or other means that remove the drain from the suction side of the circulation system