HEALTH CARE AGENCY/PUBLIC HEALTH
ENVIRONMENTAL HEALTH
INFORMATIONAL BULLETIN

To: Owners/Operators of Public Pools Located in Orange County

Subject: **Virginia Graeme Baker Pool and Spa Safety Act**

The Federal Virginia Graeme Baker Pool and Spa Safety Act became effective December 19, 2008. The act requires that public pools be equipped with anti-entrapment drain covers or systems that comply with a nationally recognized standard. Virginia Graeme Baker died at the age of seven after becoming trapped on the main drain of a spa pool during a graduation party. Suction entrapment occurs when a swimmer, usually a small child, is trapped by the suction forces created by the drain at the bottom of the pool. From 1999 to 2007 the Consumer Product Safety Commission (CPSC) reports 74 cases of pool/spa drain entrapment, with nine deaths *(http://www.cpsc.gov/LIBRARY/entrap08.pdf)*. The requirements of this new Act are intended to protect all pool/spa users from entrapment risks.

The new federal law requires that all public pools and spas be equipped with anti-entrapment drain covers/grates that comply with ASME/ANSI A112.19.8-2007 performance standards. The act also requires that all public pools have split (dual) drains or be equipped with a safety vacuum release system or other approved device designed to prevent entrapment. The Consumer Product Safety Commission is the primary enforcement agency for this act. The Consumer Product Safety Commission web site is located at http://www.cpsc.gov. The new Federal code can be found at http://www.cpsc.gov/pssainterp.pdf.

Please be advised that if you are proposing to reconstruct or alter any public swimming pool, construction plans and specifications must be submitted to Environmental Health for review. With regard to the Virginia Graeme Baker Act, the installation of ASME/ ANSI A112.19.8-2007 drain covers and the incumbent modification of the sump beneath the drain cover will require written approval from Orange County Environmental Health. Approval from this department constitutes only compliance with California Health & Safety, California Code of Regulations (Title 22 & 24) as they pertain to public swimming pools. The Virginia Graeme Baker Act is governed by the Federal Consumer Product Safety Commission**.** Written approval from all appropriate regulatory agencies must be received prior to commencement of any work, and in advance of receiving any building, plumbing or electrical permit. Should you have questions please contact Environmental Health at (714) 433-6000.

New Pool Construction

Split main drain systems will continue to be required for all new pools. New pools shall comply with requirements (a) thru (i) below which can be found in the ANSI/APSP-7 standard for preventing suction entrapment hazards in public swimming pools

Existing pools with split drain(s)

Written approval from Orange County Environmental Health is required for the replacement of suction drain covers for existing pools. If the covers/grates are replaced for any reason they must be replaced with approved anti-entrapment covers/grates as specified in requirement (e) & (h) below and if the pool has field-built sumps (no manufactured bowl below the cover), section (f) below.

Safety vacuum release systems or automatic pump shut-off systems Option

The CPSC allows the installation of a safety vacuum release system or automatic pump shut off system as an option to meet the requirements of the Virginia Graeme Baker Act in existing pools. Environmental Health has no role in this option as it is not a State of California requirement however we do not object to the installation of safety vacuum release systems or automatic pump shut-off systems as a protection against entrapment, provided they comply with ASME/ANSI A112.19.17 performance standards.

Environmental Health will not be responsible for determining whether the safety vacuum release system or automatic pump shut-off system has been properly installed per manufacturer's instructions, if the system is functioning properly, has been calibrated, is being properly maintained or will be periodically tested, both now and in the future. This will be the responsibility of the owner/operator.

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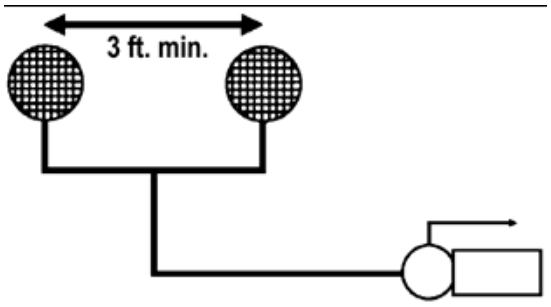
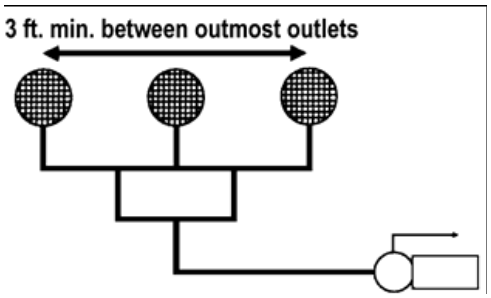
Requirements for dual drains:

a. For new and retrofitted dual drains, the suction side of each pump, located on any type of pool, shall be plumbed with at least two suction outlets. Suction outlets shall be separated by a distance of at least 3 feet, measured from the center of one suction pipe to the other.

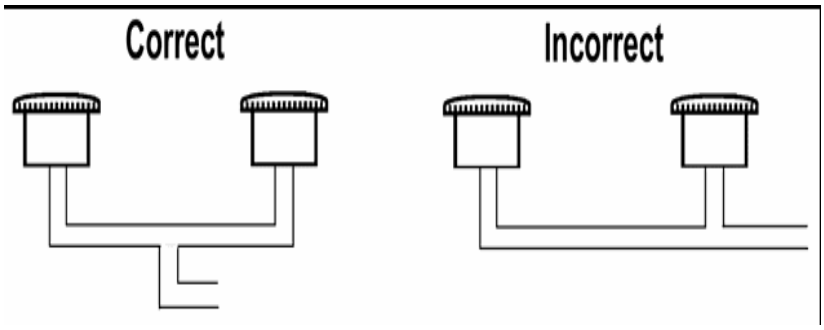


Dual Outlets

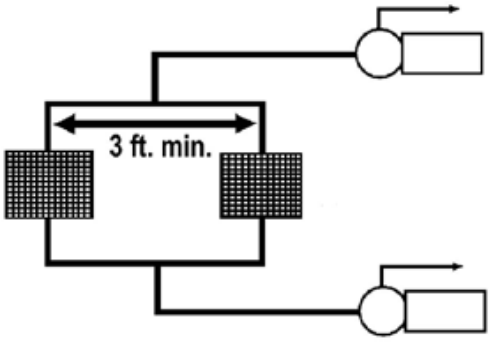


Three Outlets

b. The suction drains must be plumbed with a T in the center that is hydraulically balanced. Each branch of the "T" must be at least the same size as the main suction plumbing. Note: Spas have two separate systems, one for the filtration and the other for the jets. Both systems need to comply with dual drain requirements.



c. Each branch of a split suction shall terminate under its own suction outlet cover/grate. However, suction plumbing from two different pumps may terminate under one suction outlet cover/grate if the combined flow rate of each suction pipe is less than the flow ratings of a single cover/grate.



d. In situations where room on the floor is limited, (e.g. in a spa), the suction outlets may be located less than 3 feet apart, as long as they are located on different design planes (e.g. one drain on the floor and one on the wall or two different walls) and as long as they are offset so a body cannot cover both suction outlet covers\grates. When a suction outlet is located on a wall, the bottom edge of the cover/grate shall be within 3 inches of the floor.

e. The flow rating of each cover/grate shall be equal to or greater than the flow rating of the pump it is connected to. For example, if a pump is rated at 80 gpm at 60 feet of head, each cover/grate of the split suction must be rated at 80 gpm or greater. If 3 or more suction outlets are used, refer to the table below.

Number of covers/grates per system	Minimum flow rating of each cover/grate % maximum system flow rate
2	100%
3	66.7%
4	50%
5	40%
6	33.3%

f. All drains/grates will be required to meet ASME/ANSI A112.19.8-2007 performance standards.

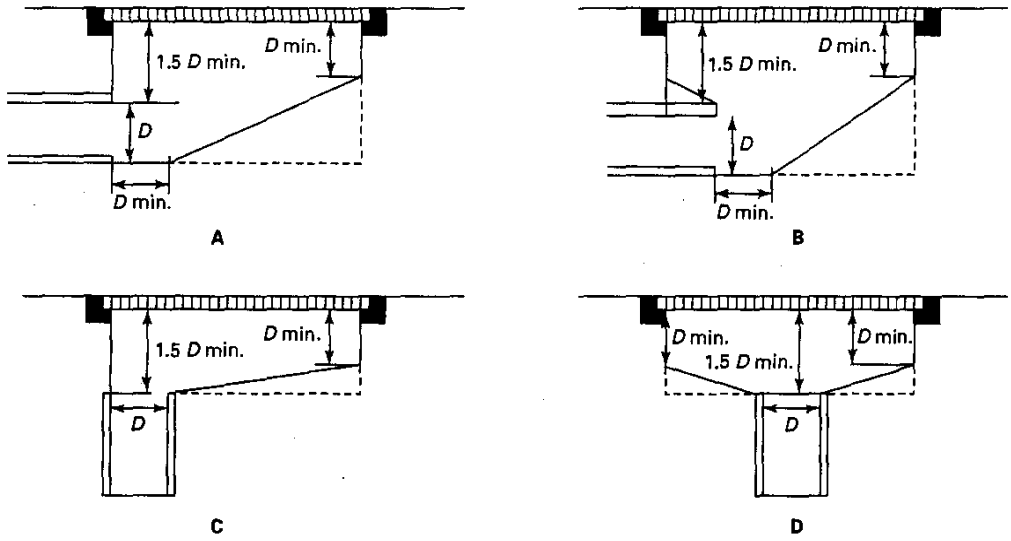
g. Cover/grate and sump requirements for main drains shall also apply to all equalizer lines; however, the cover/grate is not required to be within 3 inches of the pool floor.

h. For pools with a single main drain that are being retrofitted, a single approved unblockable channel drain configuration shall be considered acceptable, provided it is on a list of approved equipment, available on request. (Drains are considered unblockable if the size of the perforated area is 3 inches or greater in width and 31 inches or greater in length).

i. If the suction outlet cover/grate is not part of the manufactured sump and is placed on a field-built sump, the sump must comply with the following dimensions.

ASME A112.19.8-2007

Fig. 2 Field Built Sump



GENERAL NOTES:
(a) D = inside diameter of pipe.
(b) All dimensions shown are minimums.
(c) A broken line (_ _) indicates suggested sump configuration.

k. Skimmers shall be connected to either an equalizer line or a main drain. A main drain connected to a skimmer requires split main drains

Important

Please be advised that if you are proposing to reconstruct or alter any public swimming pool, construction plans and specifications must be submitted to Environmental Health for review.

Contact information

http://ochealthinfo.com/regulatory/pool/ or (714) 433-6000.

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