Swimming Pool and Spa Safety Requirements

I

INTRODUCTION

Over the past 30 years, child drowning has moved up the mortality scale to the second leading cause of death in children under the age of 4.¹ Nationwide, according to the Center for Disease Control (CDC), drowning is the second leading accidental cause of death among children between the ages of 1 to 14. In 1978, the United States Department of Health and Human Services set a national objective to reduce the death rate for drowning from 3.2 per 100,000 persons to 1.5 per 100,000 persons by 1990.²

Many drownings could have been prevented by instituting proper guidelines for pools. First, and foremost, the most effective barrier to children drowning is adult supervision. There are also, state regulated “barriers” that must be in place when it comes to swimming pools.

Another cause of death or injury is entrapment in a pool or spa, which occurs when a person becomes caught in the strong suction in and around the drains in pools and spas. The suction can have enormous force; a standard pump in a typical pool or spa will create 350 pounds of pressure for an 8-inch main drain. The force is so strong that the bather cannot break free and rescuers cannot break the suction; the bather often drowns or is fatally injured before the suction can be broken.

Electrocution from faulty wiring around in and around swimming pools and spas is another cause of death or severe injury. California passed a law in 1997 after a child was killed from electrical shock while swimming in an apartment pool. The law, as discussed below, requires that owners maintain swimming pools to prevent electric shock.

II

ENCLOSURES, GATES, AND DECKING

When Renting a Single Family Home with a Swimming Pool

California’s “Swimming Pool Safety Act” (“Act”)³ establishes specific regulations for single family swimming pools and spas in California.

Swimming pools are defined as “…any structure intended for swimming or recreational bathing that contains water over 18 inches deep … including, but not limited to, hot tubs, spas…”⁴

¹ http://www.cdc.gov/ncipc/StateProfiles/sip_ca.pdf
² http://www.medcontrol.com/submersion.html
³ Health and Safety Code 115920 et seq
⁴ Health and Safety Code Section 115921
Whenever a building permit is issued for construction of a new swimming pool or spa, it shall be equipped with at least one of the following seven drowning prevention safety features:

1. Be isolated from access to a home by an enclosure having the following characteristics:
   a. Gates opening away from the pool and are self-closing with a self-latching device, place no lower than 60 inches above the ground;
   b. A minimum height of 60 inches; and a maximum vertical clearance from the ground to bottom of the enclosure of two inches;
   c. If there are gaps or voids, they do not allow the passage of a sphere equal to or greater than 4 inches in diameter; and
   d. The outside surface needs to be free of characteristics that would serve as handholds or footholds that could enable a child below the age of five years to climb over.

2. A “safety” pool cover meeting specified regulations.

3. Exit alarms for the residence on those doors providing direct access to the pool and also a self-closing, self-latching device with a release mechanism placed no lower than 54 inches above the floor.

4. Other means of protection equal to or greater than that afforded by the above devices.

Prior to 2006, the “Act” only required the safety barriers for new construction of a pool or spa. If an owner wanted to remodel a pool or spa, they could do so without having to include any of the above safety features in the remodeling. After 2006, if the owner pulled a permit to remodel an existing pool or spa, the “Act” required the remodeling to include at least one of the above listed safety features. Two additional safety options were also authorized for use:

1. A removable mesh pool fence in conjunction with a gate that is self-closing and self-latching and can accommodate a locking device meeting specified regulations.

2. A swimming pool alarm, placed in the pool, which will sound upon detection of accidental or unauthorized entrance into the water.

Apartment Complexes and Other Residential Settings with Swimming Pools

The California Code of Regulations has very specific criteria (outlined below) for swimming pools in apartment complexes.

Pool Decks

Pool decks must be a minimum of 4 feet wide, slip resistant, nonabrasive concrete or like material flush with the top of the pool shell wall and completely surrounding the pool. An exception to this rule is if the pool was built prior to July 1994, and the pool enclosure requirements diminish the 4 foot deck. If diving boards, slides or other appurtenances are available, the decking must extend an additional 4 feet on

5 California Code of Regulations – Title 24, Section 3118B, et seq.
both sides and rear. To adequately drain, the decking must slope a minimum of ¼ inch to a deck drain or other approved surface water disposal area. The pool deck cannot drain back into the pool.

If a spa is available for use, there must be a distance of at least six feet between the edge of the spa and the edge of the pool.

**Enclosures and Gates**

A pool must be enclosed by one, or a combination, of the following:

1. A fence;
2. A portion of a building;
3. A wall; and/or
4. Other approved durable enclosures.

Doors, openable windows, or gates of living quarters are not permitted as part of the pool enclosure.

Enclosures, doors, and gates must have the following specifications:

1. The enclosure must be at least 5 feet in height;
2. Openings, holes or gaps in the enclosure, doors or gates cannot allow the passage of a 4 inch diameter sphere, and if there is a gap or opening at the bottom of the enclosure, gate or door, the bottom must be less than 2 inches from the finished grade. Chain link fencing may be used if the openings are no greater than 1 ¾ inches measured horizontally.
3. Enclosure, gates, and doors must be constructed so that small children cannot readily climb them. Any construction of the enclosure, gate, or door containing horizontal or vertical bracings is prohibited. Also, planters or other structures are not permitted on or near the enclosure.

**Gates and Doors**

Along with the above referenced criteria and regulations for enclosures, fences and gates fall under further regulatory specifics:

1. Doors and gates must open away from the pool. Gates and doors must have a self-closing, self-latching device designed to keep the gate or door securely closed. A hand activated door or gate hardware must be located 3 ½ feet above the deck or walkway.
2. Doors and gates must have the capability of locking when the pool is closed.
3. For emergency purposes the pool enclosure must have at least one egress without having to use a key.
4. All gates and doors exiting the pool area must open onto a public area or walkway accessible by all patrons of the pool.
III
SIGNAGE AND EQUIPMENT

State regulations require specific signage around pools and pool areas. An addendum for additional pool rules (such as time of usage) can be found in the “Forms Section” of CAA’s website at www.caanet.org.

(1) Occupant Load – A sign with clearly legible letters not less than 4 inches high shall be posted in a conspicuous place near the main entrance to a pool which shall indicate the number of occupants permitted for each pool. The occupant capacity, except spas and wading pools, of all other types of pools (i.e., swimming pools, diving pools, lap pools) must be based on one bather for every 20 square feet of pool water surface area.

(2) Spa – The occupant capacity of a spa must be based on one bather for every 10 square feet of pool water surface area. The regulations further require the posting of a precautionary sign with clearly legible letters in a prominent place near the entrance to a spa which shall contain the following language:

CAUTION
(1) Elderly persons, pregnant women, infants and those with health conditions requiring medical care should consult with a physician before entering a spa.

(2) Unsupervised use by children under the age of 14 is prohibited.

(3) Hot water immersion while under the influence of alcohol, narcotics, drugs, or medicines may lead to serious consequences and is not recommended.

(4) Do not use alone.

(5) Long exposure may result in nausea, dizziness or fainting.

(3) Shallow Pools – Signs with clearly legible letters not less than 4 inches high must be posted in a conspicuous place and shall state: “NO DIVING ALLOWED.”

(4) Pools Without Lighting – Where pool lighting fixtures are not provided, a sign, with clearly legible letters not less than 4 inches in height must be posted in a prominent place near each entrance to the pool area. The sign shall state: “NO USE OF POOL ALLOWED AFTER DARK.” Pool lighting fixtures have specific requirements as well. Please see CAA’s Issue Insight “Swimming Pool Retrofit: Ground Fault Circuit Interrupters.”

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6 California Code of Regulations – Title 24, Section 3119B, et seq.
7 Despite the fact that California law mandates specific pool and spa safety signage, court actions have been brought against property owners who have age restrictions at their properties. Restrictions that apply only to children often raise fair housing concerns. Please consult with your attorney prior to implementing and enforcing any such restrictions.
(5) In pool and spa areas, if there is no lifeguard on duty, a warning sign must be placed in plain view, and it must state “Warning — No Lifeguard on Duty” with clearly legible letters at least 10.2 centimeters (4 inches) high. In addition, the sign shall must state: "Children Under the Age of 14 Should Not Use Pool Without an Adult in Attendance."\(^8\)

### Other Safety Requirements

Each pool must be equipped with one or more rescue poles not less than 12 feet in length with body hooks, and one or more life rings that have a minimum exterior diameter of 17 inches readily accessible for use.

### IV ENTRAPMENT

Many drowning deaths and injuries are caused by entrapment, which occurs when a person becomes caught in the strong suction in and around the drains in pools and spas (hot tubs). The force is so strong that the bather cannot break free; sometimes, even rescuers cannot break the suction; the bather often drowns or is fatally injured before the suction can be broken and the person pulled away.

Federal safety law, 15 USC 8001, ([http://www.cpsc.gov/pssa.pdf](http://www.cpsc.gov/pssa.pdf)) requires that by December 19, 2008, all public pools and spas must have appropriate safety drain covers, and in certain circumstances, anti-entrapment systems. Under the federal law, “public pools and spas” includes those which are open to residents of an apartment building or complex, residential development, or multi-family residential area, or patrons of a hotel or other public facility.

The federal law requires owners to comply with the following guidelines:


- Every new public pool and spa must be equipped with drain covers that confirm to this standard. Every existing public pool and spa must be retrofitted with drain covers that confirm to this standard.

- Every new and existing public pool and spa that has a single outlet must have at least one of the following: A safety vacuum release system that complies with ANSI/ASME A112.19.17 or ASTM F2387; a suction limiting vent system; a gravity drainage system; an automatic pump shut-off; a drain disablement system; or an equivalent system that may be approved by the CPSC. This does not apply to pools with unblockable outlets, those too large to be blocked in the ways described above.

Apartment owners and managers should immediately inspect their pools and spas to determine that appropriate drain covers are in place. Engage a pool professional as needed.

- If the covers are missing, broken, or loose, they need to be replaced or repaired so that they meet the new guidelines. **Close the pool or spa and disable all the drains until an approved cover can be obtained and installed.**

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\(^8\) California Administrative Code – Title 22, Section 65539
• Be sure that all drain covers comply with ASME A112.19.8-2007. The cost of a cover is about $300.

• Inspect all drain covers each day to ensure that they are in good condition and properly fixed in place.

V
LIGHTING AND ELECTRICAL SYSTEMS

An apartment owner must ensure that there is no shock hazard from an underwater lighting system, operating at more than 15 volts, supplied from a branch circuit either directly or by way of a transformer. The lighting must comply with both of the following requirements:

• An approved ground-fault circuit interrupter must be installed in the branch circuit that supplies all fixtures operating at more than 15 volts.

• Only approved underwater lighting fixtures can be used and no lighting fixtures can be installed for operations at more than 150 volts between conductors.

The ground-fault circuit interrupter required by this law must comply with standards acceptable to the authority having jurisdiction.

The owner or operator of a pool must comply with both of the following:

• Obtain an inspection of the pool by the local health officer or a qualified contractor (see below) as defined;

• Certify to the local health officer that the swimming pool is in compliance with this law.

All electrical work required for compliance with this section must be performed by a qualified contractor. A qualified contractor means a person licensed to perform electrical work within his or her general, specialty, or limited specialty contractor’s licensed scope of practice pursuant to Section 7059 of the Business and Professions Code.

VI
LOCAL LAWS

Your local planning or safety department is charged with inspecting pools for proper safety rules and regulations. Please check with your local jurisdiction for any local rules and regulations relating to pool safety.

VII
CONCLUSION

While owners cannot guarantee the safety of residents and in particular the safety of a young child, owners can institute appropriate “barriers”, rules, and safety equipment that aid in their safety.