



COUNTY OF LAKE COMMUNITY DEVELOPMENT DEPARTMENT

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Private Swimming Pool, Spa, Hot Tub and Barrier Requirements 2019 CBC Sect. 3109

INTENT: The intent of the swimming pool barrier requirement is to prevent the uncontrolled access to a pool or spa by children from adjacent properties and from the home.

DEFINITIONS:

APPROVED SAFETY POOL COVER means a manual or power-operated safety pool cover that meets all of the performance standards of the American Society for Testing and Materials (ASTM), in compliance with standard F1346-91.

ENCLOSURE means a fence, wall, or other barrier that isolates a swimming pool from access to the home or from adjacent properties.

EXIT ALARMS means devices that make audible, continuous alarm sounds when any door or window that permits access from the residence to the pool area that is without any intervening enclosure is opened or is left ajar. Exit alarms may be battery operated or may be connected to the electrical wiring of the building. Exit alarms may not be allowed to be inoperable with a switch or lock out device. Home security alarm is not acceptable.

SWIMMING POOL or pool means any structure intended for swimming or recreational bathing that contains water over 18" deep. Swimming pool includes in-ground and aboveground structures and includes, but is not limited to, hot tubs, spas, portable spas, and non-portable wading pools.

SPA, SELF-CONTAINED, is a continuous-duty appliance in which all control, water-heating and water-circulating equipment is an integral part of the product, located entirely under the spa skirt. A self-contained spa is intended for recreational bathing and contains water over 18 inches (457mm) deep. (Locking safety covers that comply with ASTM ES 13-89 would be acceptable per 2019 CBC 3109.4.4.5) (No enclosure required.)

SPA, NON- SELF-CONTAINED, is a hydro-massage pool or tub for recreational or therapeutic use, not located in healthcare facilities, designed for immersion of users and usually having a filter, heater and motor-driven blower. It may be installed indoors or outdoors, on the ground or on a supporting structure, or in the ground or in a supporting structure. A non-self-contained spa is intended for recreational bathing and contains water over 18 inches (457mm) deep. (Considered a swimming pool, enclosure required to comply with 2019 CBC 3109.4.4.2 and 3109.4.4.3)

CONTRACTOR'S RESPONSIBILITY: Any person entering into an agreement to build a swimming pool shall give the consumer notice of the requirements of the swimming pool barrier. **Health and Safety Code Section 115924. 2019 CBC 3109.4.4.4 Agreements to build; notice of provisions.** *Any person entering into an agreement to build a swimming pool or spa, or to engage n permitted work on a pool or spa, or to engage in permitted work on a pool or spa covered by this article, shall give the consumer notice of the requirements of this article. Pursuant to existing law, the Department of Health Services shall have available on the department's web site, commencing January 1, 2007, approved pool safety information available for consumers to download. Pool contractors are encouraged to share this information with consumers regarding the potential dangers a pool or spa poses toddlers. Additionally, pool contractors may provide the consumer with swimming pool safety materials produced from organizations such as the United States Consumer Product Safety Commission, Drowning Prevention Foundation, California Coalition for Children's Safety & Health, Safe Kids Worldwide, Association of Pool and Spa Professionals, or the American Academy of Pediatrics.*

Authority: Health and Safety Code Section 18942(b)

REQUIRED SAFETY FEATURES; BOTH Part A and Part B below must be complied with.

PART A) CBC Section 3109.4 as modified by COUNTY OF LAKE

The swimming pool must be surrounded by a fence or wall at least 60" high. Chain link of 2 ¼ "square (3109.4.1.5) fencing or vertical slat fencing with a maximum slat spacing of 4", masonry meets this requirement. Other enclosures that will prevent access to the pool can be approved provided that no opening other than openings for doors, gates or allow a sphere 4" in diameter to pass through it may be approved.

EXECPTION: Hot tubs or spas that meet the definition of self-contained, and have a locking safety cover that complies with ASTM ES 13-89 (ASTM F-1346) are exempt from the fence enclosure requirement. Self-contained hot tubs or spas may be recessed below the adjoining floor, deck or grade level as long as it is allowed in the manufacturer's specifications and the safety cover operates normally.

PART B) CBC Section 3109.4.4

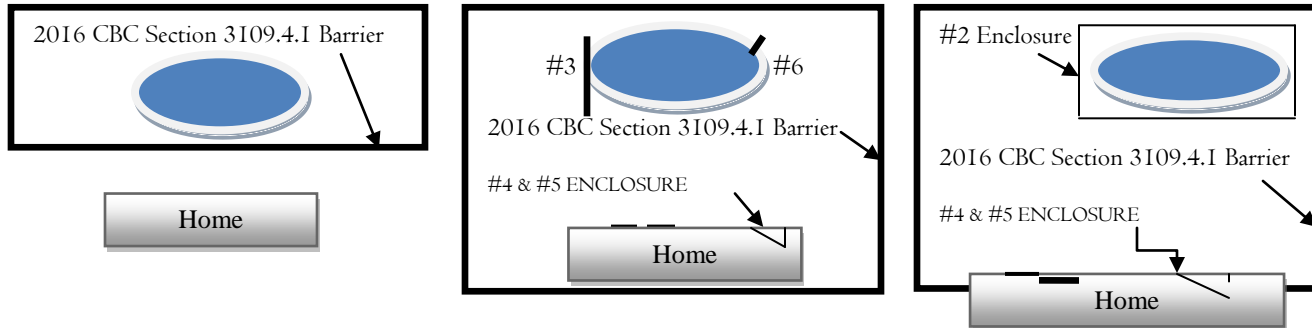
The pool shall be isolated from access to a home by one of the following methods prior to filling with water. Please see diagrams below for appropriate applications of items 1 thru 6. Provide additional information for Item 7.

1. The pool shall be isolated from access to the home by an enclosure that meets the following requirements:
 - Any access gates through the enclosure open away from the swimming pool and are self-closing with a self-latching device placed no lower the 60" above the ground.
 - A minimum height of 60".
 - Maximum vertical clearance from the ground to the bottom of the enclosure of 2".
 - Gaps or voids, if any, do not allow passage of a sphere equal to or greater than 4" in diameter.
 - An outside surface free of protrusions, cavities, or other physical characteristics that would serve as handholds or footholds that could enable a child below the age of five years to climb over.
2. The pool shall incorporate removable mesh pool fencing that meets ASTM F2286 in conjunction with a gate that is self-closing and self-latching and can accommodate a key lockable device.
3. The pool shall be equipped with an approved safety pool cover meeting ASTM F1346.
4. The residence shall be equipped with exit alarms on those doors providing direct access to the pool. All doors with direct access to the pool from the dwelling shall be equipped with an alarm that produces an audible warning when the door and its screen, if present, are opened. The alarm shall be listed in accordance with UL2017. The deactivation switch shall be located at least 54" above the threshold of the door.
5. All doors providing direct access from the home to the swimming pool shall be equipped with a self-closing, self-latching device with a release mechanism placed no lower than 54" above the floor.
6. Swimming pool alarm, when placed in pools, will sound upon detection of accidental or unauthorized entrance into the water and certified to ASTM F2208. Other means of protection, if the degree of protection afforded is equal to or greater than that afforded by any of the devices set forth in (1) to (6) above, as determined by the Building Official.
7. Other means of protection, if the degree of protection afforded is equal to or greater than that afforded by any of the devices set forth in items 1-4, and have been independently verified by an approved testing

laboratory as meeting standards for those devices established by the ASTM or the American Society of Testing Mechanical Engineers (ASME).

8. Driveway gates that are part of the enclosure are to be electronically operated and automatically close within one minute of being opened. (15.04.131) P.C.C.

Barrier Features 2,3,4,5, and 6 of Part B above are permitted as a substitution for the fence between the home and pool but **cannot be used as a substitution for the fence required in Part A.**



Part A only, but complies with Part B #1

Parts A & B

Parts A & B

ELECTRIC CODE GENERAL INFORMATION: Applies to outdoor pools, spas and hot tubs.

A. Wet-niche fixtures:

1. An approved fixture is to be roughed in a minimum of 24" below top of forms. (Must be minimum 18" below water at final)
2. Conduit to the fixture housing must be approved brass, bronze or UL labeled non-metallic conduit and cannot contain conductors for anything except the light fixture.
3. Where listed non-metallic conduit is used between the fixture and the junction box, a No. insulated copper conductor shall be installed in the conduit and its termination in the forming shell of the light shall be encapsulated with a listed potting compound.
4. The pool light junction box must be approved with factory installed grounding terminals and located a minimum 8" above the water, 4" above the deck and 4' from the edge of the water. If the junction box is located in the finished walkway around the pool it must be protected. (Under diving board OK)
5. Ensure that both the fixture and forming shell are listed for use with each other.
6. Permitted to use liquid tight flexible non-metallic conduit from the forming shell to the junction box.

B. Bonding:

An insulated or bare 48 common copper conductor is required to connect the metal of the pool deck and steel, wet-niche housing, diving board, ladder, rails, slide, pump, filter, pool cover motors and any metal within 5' horizontally and 12' vertically of the pool (conduit, piping and other metal parts).

C. Underground Wiring: Shall not be permitted under or within 5' of the pool (except needed pool wiring).

D. Grounding:

1. The following equipment (in addition to the 48 bond) is required to be grounded with an insulated copper grounding conductor sized per CEC Table 250-122 but not smaller than #12 installed in the conduit with

the circuit conductors: pool lighting fixtures, all electrical equipment associated with the recirculation system, junction boxes, transformer enclosures, G.F.I.C.'s, panel boards and any other electrical equipment within 5' of the pool.

2. The feeder between a sub-panel and the service equipment shall have an insulated equipment grounding conductor sized per CEC Table 250-122 but not smaller than #12 copper installed with feeder conductors in conduit. In a single dwelling unit the wiring to the service equipment may be in an approved cable assembly within the dwelling unit only.

E. G.F.C.I.'s:

1. Underwater light(s)- the conduit to the light must be sealed at GFCI enclosure.
2. Electrically operated pool covers (also must be minimum 5' from pool edge).
3. 124-volt receptacles **are not** permitted to be located less than 10' from the pool edge. GFCI protection is required for receptacles located within 20' of pool edge. (One receptacle is required between 10' and 20' of the pool or outdoor spa.)
4. Lighting fixtures and lighting outlets less than 5' above and between 5' and 10' from the pool. (Not permitted less than 5' to the pool.)
5. All electrical equipment, including cords used with storable pools.
6. Spas and hot tubs: In addition, listed package units may be connected with a cord no longer than 15' and be GFCI protected.

F. Overhead Conductors: are not permitted above an area within 10' horizontally of the pool, above diving structures, stands, towers or platforms.

EXCEPTION: If the lines are UTILITY owned, operated and maintained the following clearances for insulated supply or service cables are as follows: 18' in any direction to water or walkway, 14' 1" any direction to diving boards, stands or towers and to the outside edge of diving boards, stands or towers but in no case less than 10'. Check with local utility company prior to digging of pool.

G. Lights for Outdoor Pools:

1. Lights and fans are permitted 12' above the pool.
2. Existing rigidly attached GFCI protected lighting fixtures and lighting outlets are permitted within 5' of the pool edge when located not less than 5' above the water.
3. GFCI protected lighting fixtures are permitted between 5' and 10' of the water edge are permitted to be below 5' above the water surface.
4. Rigidly attached lighting fixtures (non-GFCI protected) are permitted when located more than 5' from the water's edge and not less than 5' above the water's surface.

H. Disconnecting: means for a pool, spa or hot tub must be accessible, within sight of and not less than 5' horizontally from the inside edge of the pool, spa or hot tub.

I. Electrically Operated Pool Covers:

The electric motors, controllers, and wiring shall be located at least 5' from the inside wall of the pool unless separated from the pool by a wall, cover, or other permanent barrier. Electric motors installed below grade level shall be of the totally enclosed type. All must be GFCI protected.