

Guidelines for Remodeling of Public Pools

These guidelines originated to assist with any construction, installation, renovation, alteration, addition, relocation, replacement or use of any public swimming pool/spa and to its ancillary facilities, mechanical equipment and related piping under the new requirements. Refer to the California Building Code Title 24, Chapter 31B effective September 1, 2012.

The items that are *italicized* must be in compliance **now** as part of the regular maintenance. If not in compliance at the time of inspection, the item(s) will be marked as a violation. The majority of the items on this report will be required congruent to a remodel of an existing pool/spa facility or a new construction.

Pool and Deck Requirements: (EHS Plan Check Permit Application Required)

- All swimming pools must be lined with a smooth, waterproof, white interior finish that will withstand repeated brushing, scrubbing, and cleaning procedures. The interior pool finish must completely line the pool to the tile lines, coping or cantilevered deck. If tile or other alternative material is proposed for the pool shell, a sample of the material must be submitted to EHS for approval. The pool must be built of reinforced concrete or material equivalent in strength, watertight and able to withstand anticipated stresses under both full and empty conditions.
- The finish color must be white except for the following which must be of contrasting color, slip resistant, and durable.
 - 1) Lane and other required pool markings
 - 2) The top surface edges of benches in spa pools
 - 3) The edge of pool steps
 - 4) Tiles installed at the waterline
 - 5) Tiles installed at the 4 ½ foot depth line (when applicable)
- **Exception:** A spa pool may be finished in a light color other than white when approved by the enforcing agent.
- A minimum 4 foot wide continuous, slip resistant, cleanable, nonabrasive deck area or concrete or like material starting at the top the pool coping extending around the pool. The deck width shall be measured from the poolside edge of the coping lip. ***Any deck material other than concrete must be approved by EHS.**
- Each hose bibb at the site must be protected by a non-removable, approved backflow device.
- A readily accessible life ring (minimum exterior diameter of 17 inches) with attached rope (minimum 3/16 inch diameter) long enough to span the maximum width of the pool is required (spas and wading pools are exempt.)
- There shall be no letters, marking or images of any kind on the pool shell except for lane markings, depth marking lines and safety markings.
- Depth markers must indicate the water depth, accurate to the nearest 6 inches as measured from the pool floor to the middle of the skimmer opening.
- Depth markers of contrasting color are required with numerals a minimum of 4 inches in height and written units of feet and inches; abbreviations of FT and IN may be used. The depth markers must be clearly marked at the following locations on deck of pool
 1. Maximum depth
 2. Minimum depth
 3. Each end of pool
 4. Both sides at each end of pool
 5. At the break in the bottom slope between the shallow and deep portions of the pool
 - 6) Along the perimeter of the pool at distances not to exceed 25 feet.

Refer to 3110B.4.2 for position and placement of depth markers

Exception: A spa or wading pool shall have a minimum of two depth markers indicating the maximum depth.
- Depth markers must be positioned to indicate the water depth accurate to the nearest 6 inches as measured at the waterline.
- For pools with a depth of six feet and shallower, permanent diving markers with the universal symbol of no diving, which is a red circle with a slash through it superimposed over the image of a diver, must be installed on the deck directly adjacent to the depth markers.
- No diving markers must comply with Section 3110B.4.4 (2-3):
 1. Be made of a durable material that is resistant to weathering; and
 2. Be slip resistant when they are located on the pool deck.

- All depth markers must be marked with the letters “feet” or “FT and “inches” or “IN”
- Depth markers must be at least 4 inches in height and of a color contrasting with the background.
- In pools greater than 5 feet in depth, a straight line of slip-resistant tile of contrasting color must be installed where the water depth is 4 1/2 feet. The tile must be at least 4 inches but not greater than 6 inches wide.
- Lane lines must be slip resistant and not to exceed 12 inches in width. Markings used along the edge of pool steps must be no greater than 4 inches in width and slip-resistant.
- Placement of ADA chair lifts must have 4 feet clearance beyond all sides of the chair. **(Building Department approves installation of ADA chair lifts. If existing chairs are sleeved, they may need to be bolted down; refer to Building Department).**
- At least one hand rail is required for all stairs, except for a spa, two handrails are now required. The rail must be between 28 inches and 36 inches above the pool deck and above each step tread as measured from a flat portion of the deck and edge of each step tread to the top of the handrail. The handrail must extend into the pool from the deck to the bottom step tread. There should be a minimum clearance of 3 inches between any handrail and step riser. (See handrail illustration at end of Title 24)
- A ladder as a second means of exit is required at the deep end of a pool having a water depth greater than 4 ½ feet.
- All pools should already be in compliance with Title 24 Section 3162 of the California Building Code (Virginia Graeme Baker Safety Act)
- Changes in plumbing, suction drains split, drains, skimmer replacement, for example, must conform to requirements for a new pool.
- All suction drains on public pools must be split or have a safety vacuum release system or automatic pump shut-off system. All drain covers must be correctly sized and listed ANSI for rate of flow.
- All pool lights must be protected by a Ground Fault Circuit interrupter.
- All pools with diving boards will be evaluated during any plan check to assure it meets current pool code requirements.

Required when water line tile or the deck is replaced

Depth markers of contrasting color and clearly marked are required at the following locations:

- 1) Maximum depth
 - 2) Minimum depth
 - 3) Each end of pool
 - 4) Both sides of each end of pool
 - 5) At the break in the bottom slope between the shallow and deep portions of the pool.
 - 6) Along the perimeter of the pool at distances not to exceed 25 feet.
Refer to 3110B.4.2 for position and placement of depth markers
Exceptions: A spa or wading pool shall have a minimum of two depth markers indicating the maximum depth.
- Depth markers must be positioned to indicate the water depth accurate to the nearest 6 inches as measured at the waterline.
 - For pools with a depth of six feet and shallower, permanent diving markers with the universal symbol of no diving, which is a red circle with a slash through it superimposed over the image of a diver, must be installed on the deck directly adjacent to the depth markers.
 - “No diving” markers must comply with Section 3110B.4.4 (2-3):
 1. Be made of a durable material that is resistant to weathering; and
 2. Be slip resistant when they are located on the pool deck.
 - All depth markers must be marked with the letters “feet” or “FT and “inches” or “IN”
 - Depth markers must be at least 4 inches in height and of a color contrasting with the background.

Required when coping is replaced

- All coping on pools must extend out into the pool at least one inch but no more than two inches. The coping must be at least 1 inch thick but no greater 2 ½ inches thick.

Required when Chlorinator is replaced

- An automatic chlorinator is required which is capable of supplying not less than the equivalent of 3 pounds of chlorine per day per 10,000 gallons pool water capacity ***(For existing chlorinators sized at 2 lbs. per 10,000 gallons per day, the 3 lb. per 10,000 gallons per day sizing is required whenever the chlorinator is replaced).*** Submit a specification sheet prior to purchasing and installing a new chlorinator unit for approval by your district inspector.

NOTE: the following items are to meet the new code requirements now.

Recirculation system

- **A vacuum gauge placed before the pump.**
- **Direction of Flow**
 - 1) **The direction of flow for the recirculation equipment shall be labeled clearly with directional symbols such as arrows on all piping in the equipment area.**
 - 2) **Where the recirculation equipment for more than one pool is located on site, the equipment shall be marked as to which pool the system serves.**
 - 3) **Valves and plumbing lines shall be labeled clearly with the source or Destination descriptions**
- **All pool equipment must be ANSI approved**
- **An influent pressure gauge placed before the filter but after the pump (usually found on top of the filter); an effluent pressure gauge is no longer required**
- **A flow meter must be installed on a horizontal straight run of pipe with a minimum of 10 pipe diameters before and 4 pipe diameters after the flow meter. It should be positioned after the filter and before the heater. It may be installed after the heater, if a great enough distance can be maintained so that heated water will not damage the flow meter direct connection of a pool or its recirculation system will be permitted with a sanitary sewer, storm drain or deck drain system. A sight glass is required when needed for observation of backwash water.**
- **All pools must be in compliance with Title 24 Section 3162 (Virginia Graeme Baker Act)**
- **All suction drains in public pools must be split and/or have a safety vacuum release system or automatic pump shut-off system. All drain covers must be correctly size and listed ANSI for rate of flow. A change in suction covers requires a submission to the district inspector of the cover's specification sheet and a new California Department of Public Health Compliance Form be signed by the installer and fully completed**
- **Changes in plumbing, suction drains, split drains, skimmer replacements, for example, must conform to the requirements of a new pool (refer to Building Code Title 24) and requires a plan submittal and approval prior to beginning construction.**

REQUIRED SIGNAGE

All signs shall have clearly legible letters or numbers not less than 4 inches high, unless otherwise required to be affixed to a wall, pole, gate or similar permanent structure in a location visible to all pool users.

POOL CAPACITY SIGN: A sign shall indicate the maximum number of pool users permitted for each pool. (In letters and numbers not less than 4 inches high). The pool user capacity of a spa pool shall be based on one pool user for every 10 square of pool water surface area. The pool user capacity for all other pools shall be based on one pool user for every 20 square feet of pool water surface area.

Note: Pool user capacity requirements do not apply to wading pools or spray grounds.

NO DIVING SIGN: Signs shall be posted in conspicuous places and shall state, "NO DIVING" at pools with a maximum water depth of 6 feet or less. (In letters not less than 4 inches high).

NO LIFEGUARD SIGN: Where no lifeguard service is provided, a warning sign shall be posted stating, "WARNING: NO LIFEGUARD ON DUTY." (In letters not less than 4 inches high). The sign also shall state, in letters not less than 1 inch, high, "Children under the age of 14 shall not use pool without a parent or adult guardian in attendance."

ARTIFICIAL RESPIRATION AND CARDIOPULMONARY RESUSCITATION (CPR) SIGN: An illustrated diagram with text at least ¼ inch high of artificial respiration and CPR procedures shall be posted.

EMERGENCY SIGN: The emergency telephone number 911, the number of the nearest emergency services, and the name and street address to the pool facility shall be posted.

SPA WARNING SIGN: A warning sign for spa pools shall be posted stating, "CAUTION" and shall include the following language (in letters not less than 1 inch high):

- 1) **Elderly persons, pregnant women, infants and those with health conditions requiring medical care should consult with a physician before entering the 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 hyperthermia, nausea, dizziness or fainting*

EMERGENCY SHUT-OFF SWITCH SIGN: *In letters not less than 1 inch high, a sign shall be posted at the spa emergency shut off switch stating, "EMERGENCY SHUT-OFF SWITCH."*

KEEP CLOSED SIGN: *A sign shall be posted on the exterior side of gates and doors leading into the pool enclosure area stating, "KEEP CLOSED" [In letters not less than 4 inches high]*

DIARRHEA NOTICE SIGN: *A sign in letters at least 1 inch high and in a language or diagram that is clearly stated, shall be posted at the entrance area to a public pool which states that persons having currently active diarrhea or who have had active diarrhea within the previous 14 days shall not be allowed to enter the pool water*

NO USE AFTER DARK: *Where pools were constructed for which lighting was not required, a sign shall be posted at each pool entrance on the outside of the gate(s) stating, "NO USE OF POOL ALLOWED AFTER DARK".*

WAVE POOLS: *A sign in letters at least 1 inch high shall be posted that describes the requirements for wave pool (when applicable).*

SPRAY GROUNDS: *A sign shall be posted at each spray ground and be visible from any part of the spray ground that states, "CAUTION: WATER IS RE-CIRCULATED. DO NOT DRINK."*

EXIT: *Where automatic gaseous chlorine chemical feeders are used, a sign shall be posted at the pool area entrance which shows in a diagrammatic form an emergency evacuation procedure. Designated emergency exits shall be marked, "EXIT".*

GASEOUS OXIDIZER: *Where automatic gaseous chlorine chemical feeders are used, a warning sign with the appropriate hazard identification symbol shall be posted on the exterior side of the door entering the chemical feeder room or area. The sign shall state, "DANGER: GASEOUS OXIDIZER (specific chemical name), or as otherwise required by the California Fire Code.*

TURN ON BEFORE ENTERING: *Where automatic gaseous chemical feeders are used, a sign shall be posted at the switch of the light and ventilation system for the gaseous chemical feeder room stating, "TURN ON BEFORE ENTERING", or as otherwise required by the California Fire Code or the California Electrical Code.*

For more information refer to: The California Building Code Title 24, Chapter 31B, for all remodeling and new public pool construction and all ancillary facilities on EHS website: www.sbcphd.org/ehs
California Code of Regulations, Title 22, Chapter 20 Public Pool revision in process and will be posted when approved.

Forms and additional information are available on the Environmental Health website under Recreational Health and Virginia Graeme Baker,