

MARICOPA COUNTY ENVIRONMENTAL HEALTH CODE

CHAPTER VI

BATHING PLACES - PUBLIC AND SEMIPUBLIC SWIMMING POOLS

SECTION 6

PUBLIC SWIMMING POOLS

In addition to complying with the Regulations in Sections 1, 2, 3, 4, and 5 of this Chapter, Public Swimming Pools shall comply with the following Regulations:

REGULATION 1. Design Standards and Specifications

- a. Public pools shall be constructed of concrete or other material impervious to water, which is equivalent in strength and durability, with a smooth, slip-resistant surface and designed and built to withstand the anticipated stresses. All corners must be rounded. A white pastel or other light colored waterproof interior finish, which will withstand repeated brushing, scrubbing and cleaning shall completely line the pool to the coping. Pool linings not totally bonded to the pool sides and bottom, such as plastic films and similar linings and finishes, are prohibited.
- b. A pool shall have no projections, protrusions, extensions, means of entanglement or other obstructions that may cause entrapment of or injury to the user from the pool wall and floor surfaces. This does not include seats, steps, which may be constructed only in the shallow end of the pool, and ladders which may be constructed in the deep area(s) of the pool. The seat, bench and step edges shall be outlined with a sharply contrasting colored tile or other suitable material which is clearly visible from the edge of the pool adjacent to the steps. This subsection does not prohibit water features such as slides, water play equipment or water volleyball and basketball nets.
- c. An underwater seat or bench shall:
 1. Have edges that are outlined with a sharply contrasting colored tile or other material that is clearly visible from the deck adjacent to the underwater seat or bench;
 2. Have a slip-resistant surface;
 3. Be located outside of the deep area of a swimming pool;

4. Have a maximum depth of 24 inches below the waterline and a minimum depth of 12 inches below the waterline; and
 5. Have a maximum width of 20 inches.
- d. Water depth and depth markers:
1. Water depth shall be conspicuously and permanently marked on the walls of the pool and on the top of the coping or the edge of the deck next to the swimming pool;
 2. Depth markers on a vertical wall shall be positioned to be read from the waterside;
 3. Depth markers that are located on a deck shall be made of slip-resistant materials;
 4. Depth markers for a public or semipublic swimming pool shall be installed at points of maximum and minimum water depth and at all points of slope change;
 5. Markings are required at one (1) foot depth intervals to a depth of five (5) feet, thereafter, depth markers shall be installed at two (2) foot depth intervals;
 6. Depth markers shall not be spaced at distances greater than 25 feet;
 7. Depth markers shall be located on both sides and at both ends of a public or semipublic swimming pool; and
 8. Depth markers shall be in Arabic numerals with a four (4) inch minimum height. Arabic numerals shall be of contrasting color to the background.
 9. In pools utilized for competitive swimming and training, approach-warning markings must be installed under the water level on opposite walls at the end of each swimming lane in the pool. Warning markings must be of uniform color and size on a background of contrasting uniform color. In addition, they must be clearly visible in or out of the water at all times from a distance of not less than ten (10) feet.
 10. The shallow area of a public swimming pool shall be visually set apart from the deep area of the pool by a rope and float line. Except for zero depth entries, the depth in the shallow portion of a pool shall not be less than two (2' 0") feet or greater than three (3' 0") feet.
- e. For the purposes of these Regulations, that portion of a swimming pool five (5) feet or less in depth shall be designated as the "non-swimmer" area. That part of the pool deeper than five (5) feet shall be designated as the "swimming" area. In designing pools and computing the maximum bathing load for a public or semipublic swimming pool, areas shall be proportioned as follows:

1. Ten (10) square feet of pool surface area per bather shall be provided in the "non-swimmer" area.
 2. 24 square feet of pool surface area shall be provided for each swimmer in the "swimming" area.
 3. 300 square feet of pool surface area shall be reserved around each diving board or diving platform. This reserved area shall not be included in determining the "swimming" area.
- f. The maximum bathing load for a public or semipublic swimming pool or spa shall not be exceeded.
 - g. The maximum bathing load for a public swimming pool shall be limited by the number of users for the toilets, showers, lavatories that are provided in the bathhouses or dressing rooms prescribed in Section 5, Regulation 1 of this code.
 - h. The maximum bathing load for a public or semipublic spa shall not exceed the area of the spa in square feet divided by nine (9) square feet.
 - i. The maximum bathing load for a public or semipublic swimming pool or spa shall be posted in the pool enclosure.

REGULATION 2. Overflow Collection Systems

An overflow collection system shall be installed in all public pools.

- a. The overflow system shall be designed and constructed so that the level of the pool is maintained at the mid-point of the operating range of the skimmers.
- b. Rim type overflow systems where used shall be installed on at least two (2) opposite sides and have a total length of at least 50 percent of the perimeter of the pool. The system shall be capable of carrying 50 percent of the design capacity of the recirculating system. The surge tank shall be equipped with float controls regulating the main drain, fill line and overflow. It shall have a capacity in gallons equal to the surface area of the pool measured in square feet. The surge tank may be incorporated into the gutter.
- c. Overflow gutters, where used, shall be installed continuously around pools with the lip of the gutter level throughout its perimeter. They shall be provided with sufficient opening at the top and width at the bottom to permit easy cleaning. The gutter bottom shall be pitched one-quarter (1/4) inch per foot to drainage outlets located at intervals as approved by the Department. Outlet piping shall be sized to circulate at least 50 percent of the capacity of the circulating system and have a properly installed approved cover. The surge tank shall be equipped with float controls regulating the main drain, fill line and overflow. It shall have a capacity in gallons equal to the surface area of the pool measured in square feet. Stainless steel gutters and other specialty gutter systems may be used if they are hydraulically equivalent to overflow gutters.

- d. Skimming devices, where used, shall be recessed into the pool wall and shall be installed to achieve effective skimming action throughout the pool. Skimmers shall be provided on a basis of at least one (1) skimmer for each 400 square feet of surface area. The overflow slot shall be set level and shall not be less than eight (8) inches in width at the narrowest section. The rate of flow through the skimmers shall be a minimum of 75 percent (75%) of the recirculation system capacity. Skimmers shall be designed to carry at least 30 GPM per linear foot of weir throat. A minimum of two (2) skimmers shall be installed in swimming pools. Where three (3) or more surface skimmers are used, they must be on a closed loop piping system. At least one (1) surface skimmer shall be located on the side or near the corner of the swimming pool that is downwind of the area's prevailing winds. Main drain piping shall be designed to carry at least 50 percent of the design flow.
- e. Mixed inlet types, such as, skimmers and gutters are prohibited on the same body of water.

REGULATION 3. Ladders, Steps, and Recessed Treads

At least one (1) set of steps shall be provided in the shallow end of each swimming pool. Where the deep section is greater than 20 feet in width, two (2) ladders, located on opposite sides of the deep section are required. A minimum of two (2) means of egress will be required in all pools. There shall be at least one (1) ladder or stair for each 75 feet of perimeter. Preformed step holes and suitable handrails may be substituted for ladders. At least one (1) set of steps shall be provided in the shallow end of each swimming pool.

- a. Steps must be permanently marked so as to be clearly visible from above or below the swimming pool surface. The edges of the steps shall be clearly outlined with a sharply contrasting colored tile or other material that is clearly visible from the deck adjacent to the steps. The tile or other material shall be at a minimum, a continuous 1-inch band or 2-inch square chips spaced no more than 8-inches apart, when measured between the edge of the chips. Steps shall not project into the pool in a manner, which will create a hazard. Steps may be constructed only in the shallow area of a public or semipublic swimming pool. All tread surfaces on steps shall have slip-resistant surfaces. Step treads shall have a minimum unobstructed horizontal depth of ten (10) inches. Risers shall have a maximum uniform height of 12 inches, with the bottom riser height allowed to vary plus or minus two (± 2) inches from the uniform riser height. The location of stairs, ladders, and recessed treads shall not interfere with racing lanes. A set of steps shall be provided in a public or semipublic spa. Handrails shall be provided at one side or in the center of all stairways. Handrails shall be installed in such a way that they can be removed only with tools. A beach entry may be substituted for steps in the shallow end of the pool.
- b. A swimming pool ladder shall be equipped with two (2) handrails. All treads on ladders shall have slip-resistant surfaces. Ladder treads shall have a minimum horizontal depth of one and one-half (1 1/2) inches. The distance between ladder treads shall range from a minimum of seven (7) inches to a maximum of 12 inches. Below the waterline, there shall be a clearance of not more than six (6) inches and not less than three (3) inches

between any ladders tread edge and the wall as measured from the side of the tread closest to the wall.

- c. Recessed treads with handrails may be substituted for ladders. Recessed treads shall be pre-formed, readily cleanable, and designed to drain into the swimming pool or spa to prevent the accumulation of dirt in the recessed treads. Each set of recessed treads shall be equipped with two (2) handrails. All recessed treads shall have slip-resistant surfaces. The vertical distance between the swimming pool or spa coping edge or deck and the uppermost recessed tread shall be a maximum of 12 inches. Recessed treads at the centerline shall have a uniform vertical spacing of 12 inches maximum and seven (7) inches minimum. Recessed treads shall be at least five (5) inches deep and 12 inches wide.

REGULATION 4. Lighting

It is the responsibility of the owner to insure that a public or semipublic swimming pool or spa and adjacent deck areas shall be lighted by natural or artificial means when in use. A public or semipublic swimming pool or spa that is intended to be used at night shall be equipped with artificial lighting that is designed and spaced so that all parts of the swimming pool or spa, including the bottom, may be seen without glare.

REGULATION 5. Hose Bibbs

Hose bibb(s) shall be provided along the perimeter of the deck so that all parts of the deck may be washed down. At a minimum, each hose bibb shall be protected against back siphonage with an atmospheric vacuum breaker. The Department may approve quick-disconnect-style hose bibb(s)

REGULATION 6. Diving Facilities

- a. The dimensions of a diving area in a public or semipublic swimming pool shall comply with minimum requirements for length, width, depth, area and other dimensions specified in Appendix A or Appendix B. The diving well profile in Appendix A does not apply to a special use pool that is intended for competitive diving and has been approved by the Department pursuant to Chapter VI, Section 10 of this code.
- b. Diving equipment shall be permanently anchored to the swimming pool deck. Equipment shall be rigidly constructed with sufficient bracing to insure stability. Supports, platforms, steps, and ladders for diving equipment shall be designed to carry anticipated loads.
- c. All diving stands higher than 21 inches, measured from the deck to the top of the board, shall be provided with stairs or a ladder.
- d. Diving equipment shall have a durable finish. The surface finish shall be free of tears, splinters, or cracks that may be a hazard to users.

- e. Steps and ladders leading to diving boards and diving platforms shall be of corrosion-resisting materials and shall have slip-resistant tread surfaces. Step treads shall be self-draining.
- f. Diving boards, diving platforms, and starting blocks shall have slip-resistant tread surfaces.
- g. Handrails shall be provided at all steps and ladders leading to diving boards that are one (1) meter or more above the water.
- h. Diving boards and diving platforms that are one (1) meter or higher shall be protected with guard rails. Guardrails shall be at least 30 inches above the diving board or diving platform and shall extend to the edge of the swimming pool wall.
- i. A label shall be permanently affixed to a diving board and shall include the following:
 - 1. Manufacturer's name and address;
 - 2. Board length; and
 - 3. Fulcrum setting instructions.
- j. The maximum diving board height over the water is three (3) meters. The maximum height of a diving platform over the water is ten (10) meters.
- k. Starting blocks shall be located in the deep end of a public swimming pool or where the depth of the water is at least five (5) feet.
- l. There shall be a completely unobstructed clear vertical distance of 13 feet above any diving board measured from the center of the front end of the board. This clear, unobstructed vertical space shall extend horizontally at least eight (8) feet behind, eight (8) feet to each side, and 16 feet ahead of the front end of the board.

REGULATION 7. Lifeguards

- a. At all public pools at least one (1) lifeguard shall be on duty for each 2,000 square feet of pool surface area or 150 bathers or as approved by the Department.
- b. Lifeguards shall be in constant attendance during bathing hours and no bathers shall be permitted in a pool area unless lifeguards are present.

REGULATION 8. Lifeguard Chairs

Each public pool shall have at least one (1) elevated lifeguard chair for each 2,000 square feet of pool surface area or 150 bathers. The chairs must be located close to the deeper portion of the pool and provide a clear, unobstructed view of the pool bottom. If a public swimming pool is provided with more than one (1) lifeguard chair or the width of the public swimming pool is 45 feet or more, then lifeguard chairs shall be located on each side of the public swimming pool.

REGULATION 9. Lifesaving and Safety Equipment

Lifesaving and Safety equipment consisting of at least two (2) Coast Guard approved ring buoys, each with 50 feet of one-fourth (1/4)-inch rope attached, and one (1) shepherd's crook mounted on a rigid 16-foot pole shall be provided at each public pool. Public swimming pools shall have lifesaving and safety equipment that is conspicuously and conveniently located and maintained ready for immediate use at all times.

REGULATION 10. Drinking Water Supply

Drinking water from an approved source and dispensed through one (1) or more approved sanitary drinking fountains shall be located on the deck of each public pool or spa.

REGULATION 11. Fencing

All public pools, spas and walkways adjacent to such pools shall be enclosed by a durable fence or wall at least six (6) feet high to provide bather control while the pool is in operation, and to prohibit any person from using the pool except when a lifeguard is on duty. The height of the fence, wall, or barrier shall be measured on the side of the barrier, which faces away from the swimming pool or spa. Fences, walls or artificial barriers shall:

- a. Be constructed so as to afford no external handholds or footholds;
- b. Be of materials, which are impenetrable by small children, dogs, livestock, etc.;
- c. Be a minimum of six (6) foot high above the highest practical foothold, curb, or (in the case of a combination fence) the base wall;
- d. Have openings or spacings of such size that a spherical object four (4) inches in diameter cannot pass through; and
- e. Be equipped with a gate that opens outward from the swimming pool or spa, with a self-closing and positive self-latching closure mechanism or a locking closure located at or near the top of the gate and at least 54 inches above the floor.
- f. The distance between the horizontal components of a fence shall not be less than 45 inches apart. The horizontal members shall be located on the interior side of the fence. Spacing or openings between vertical members shall be of a size that a spherical object four (4) inches in diameter cannot pass through.
- g. The maximum mesh size for a wire mesh or chain link fence shall be 1.25" X 1.25" (maximum opening area size = 1.56 square inches). The maximum opening formed by the composed diagonal members shall be no more than 1.75 inches.
- h. Masonry or stone walls shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.

- i. If a wall of a building serves as part of the barrier around a public or semipublic swimming pool or spa, there shall be no direct access to the swimming pool or spa through the wall except as follows:
 1. Windows leading to the swimming pool or spa area shall be equipped with a screwed-in place wire mesh screen or a keyed lock that prevents opening the window more than four (4) inches.
 2. A hinged door leading to the swimming pool or spa area shall be self-closing and shall have a positive self-latching device. The release mechanism of the positive self-latching device shall be located at least 54 inches above the floor.
 3. If an additional set of doors is required by the fire code allowing access to the swimming pool or spa, they shall be self-closing and self-latching, equipped with panic bars no less than 54 inches from the floor to the bottom of the bar and designated "for emergency use only."
 4. Sliding doors leading to the swimming pool or spa area are prohibited except for sliding doors that are self-closing and self-latching.
- j. If a barrier is composed of a combination concrete masonry unit and wrought iron, the wrought iron portion shall be installed flush with the outside vertical surface of the concrete masonry unit. The space between the wrought iron and the concrete masonry unit shall be one-half (1/2) inch or less. The vertical members of the wrought iron shall be spaced four (4) inches on center.
- k. An area clear of any type of footholds which could be used to assist in scaling the barrier must be maintained for a minimum of three (3) feet outside the barrier and so that the effective height of the barrier is maintained.
- l. In addition, the mechanical filtering, disinfection and recirculating equipment must be protected from tampering by a suitable enclosure or fence.

REGULATION 12. Lifeline

A lifeline shall be installed across each public swimming pool at the point where the floor slope begins to exceed one (1) foot in ten (10) feet whenever the pool is open for use by the general public. The lifeline shall be three-fourths (3/4) inch minimum diameter and supported by floats spaced at intervals not greater than seven (7) feet. The rope and float line shall be securely fastened to wall anchors that are made of corrosion-resistant materials. The wall anchors shall be recessed or have no projection that constitutes a hazard when the float line is removed.

REGULATION 13. Wastewater Disposal

All sewage from plumbing fixtures, including urinals, toilets, lavatories, showers, drinking fountains, floor drains and other sanitary facilities shall be disposed of in a sanitary manner. The

backwash from filters and wasted pool water may be disposed of, in whole or in part, by other approved means. The method of disposal shall comply with applicable disposal requirements established by a municipal or other local authority. There shall be no direct physical connection between the sewer system and any drain from the pool or recirculation system.

REGULATION 14. Miscellaneous

- a. Walkways shall be provided adjacent to the pool and shall:
1. Be at least ten (10) feet wide, continuous and unobstructed except that where diving boards and platforms are installed the walkway shall extend at least five (5) feet to each side and behind the board or platform but not less than 15 feet from the pool wall;
 2. Slope away from the pool with a pitch of at least one-fourth (1/4) inch per one (1) foot to properly located deck drains or other approved points of disposal;
 3. Be constructed of concrete or other inorganic material, with a slip-resistant, easily cleanable finish, free of sharp or jagged edges or surfaces;
 4. Be designed to conform to the dimensions shown in Appendix A, as applicable;
 5. Have valves that are installed, in or under any deck, to provide a minimum ten (10) inch diameter access cover and a valve pit to facilitate the repair and maintenance of the valve;
 6. Have joints in decks that are provided to minimize the potential for cracks due to changes in elevations or movement of the slab. The maximum voids between adjoining concrete slabs or between concrete slabs and expansion joint material shall be three-sixteenths (3/16) inch of horizontal clearance with a maximum difference in vertical elevation of one-fourth (1/4) inch. Areas where the deck joins concrete shall be protected by expansion joints to protect the swimming pool or spa from the pressures of relative movements. Construction joints where pool or spa coping meets the deck shall be watertight and shall not allow water to pass through to the underlying ground;
 7. Have decks that are sloped to effectively drain either to perimeter areas or to deck drains. Drainage shall remove splash water, deck cleaning water, and rainwater without leaving standing water. The minimum slope of the deck shall be one-fourth (1/4) inch per one (1) foot. The maximum slope of the deck shall be one (1) inch per one (1) foot, except for ramps;
 8. Provide site drainage to direct all perimeter deck drainage and general site and roof drainage away from a public or semipublic swimming pool or spa. Yard drains may be required to prevent the accumulation or puddling of water in the general area of the deck and related improvements; and

9. Have a coping or cantilevered deck that may project from a swimming pool or spa wall to provide a handhold for users. The coping or deck shall be rounded, have a slip-resistant surface finish, and shall not exceed three and one-half (3 1/2) inches in thickness. The overhang of the coping or deck shall not exceed two (2) inches or be less than one (1) inch.
- b. Freeboard shall not exceed eight (8) inches.