

## **TITLE 24 PROPOSED PUBLIC POOL REGULATIONS**

The California Department of Public Health (CDPH) is working with the California Conference of Directors of Environmental Health to revise the existing public swimming pool regulations. These new regulations will require the public pools in California to meet current health and safety practices, standards, and operational requirements. Inquires about these draft regulations should be directed to the Environmental Health Services Section, P.O. Box 997377, MS 7404, Sacramento, CA 95899-7377, Attention Robin Belle Hook.

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**CALIFORNIA CODE OF REGULATIONS**

**TITLE 24**

**CHAPTER 31B [DPH]**

**PUBLIC SWIMMING POOLS**

**Division I - GENERAL**

**1) Amend Section 3101B as follows:**

**SECTION 3101B**

**SCOPE**

The provisions of this chapter shall apply to the construction, installation, renovation, alteration, addition, relocation, replacement, or use of any public swimming pool, and to its appurtenant auxiliary ancillary areas and facilities, and to its mechanical equipment and related piping.

**Notes:**

1. Examples of public pools include those located in the following:  
commercial building, hotel, motel, resort, ~~automobile and trailer park,~~  
~~automobile court,~~ recreational vehicle or mobile home park,  
campground, apartment house, condominium, townhouse,  
homeowner association, club, community building or area, public or  
private school, ~~gymnasium,~~ and health club or establishment, water

park, swim school, medical facility, bed and breakfast and licensed day care facility.

2. See Part 6, the California Energy Code, ~~Part 6~~, for additional swimming public pool standards.

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2) Amend Section 3102B as follows:

**SECTION 3102B**

**DEFINITIONS**

For the purposes of this Chapter, the following terms shall have the meanings indicated:

Abbreviations:

"ANSI" is American National Standards Institute

"APHA" is American Public Health Association

"ASME" is American Society of Mechanical Engineers

"ASTM" is American Society for Testing Materials

"CPR" is cardiopulmonary resuscitation

" ° " is degrees

"fps" is feet per second

"F" is Fahrenheit

"gpm" is gallons per minute

"kg" is kilogram

"kN/m<sup>2</sup>" is kilonewton per square meter

"L" is liter

"L/m per m<sup>2</sup>" is liters per minute per meter squared

"m" is meter

"m/s" is meters per second.

"mj/cm<sup>2</sup>" is millijoule per square centimeter

"mm" is millimeters

"NSF" is National Sanitation Foundation International

"NSPF" is National Swimming Pool Foundation

"NSPI" is National Spa and Pool Institute

"ppm" is parts per million

"UL" is Underwriters Laboratories

"USA" is United States of America

"UV" is ultraviolet radiation

Definitions:

**AIR GAP** is the unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet conveying water or waste to a tank, plumbing fixture receptor or other device and the flood level rim of the receptacle.

**AUXILIARY AREA ANCILLARY FACILITY** is a public dressing, locker, shower or toilet area or building space intended to be used by bathers is any area used in conjunction with, or for the operation of, a pool such as public dressing, lockers, shower or bathroom areas, equipment room, pool deck area or building space that is intended to be used by pool users.

**ASME/ANSI** is the American Society of Mechanical Engineers that publishes the American National Standards Institute's standards.

**BACKWASH** is the process of reversing the flow of water through the filter to thoroughly cleansing clean the filter media and/or elements and the contents of the filter vessel.

**BATHER** is a person using a pool and adjoining deck areas for the purpose of water sports such as diving, swimming, wading, or related activities.

**CLEAN POOL WATER** is a pool water that is free of dirt, oils, scum, algae, floating materials or other visible organic and inorganic materials that would sully the water.

**CLEAR POOL WATER** is pool water that is free from cloudiness and is transparent.

**COPING** is a precast slip-resistant cap installed on the top edge of a pool or spa.

**CORROSION RESISTANT** is the ability of a material to maintain its capable of maintaining original surface characteristics under the prolonged influence of the use in its environment.

**DECK** is an area surrounding a pool which is specifically constructed or installed for use by bathers pool users.

**DIATOMACEOUS EARTH** is a filtering media consisting of microscopic fossilized skeletons of diatoms.

**DRAIN** is a fitting or fixture, usually at or near the bottom of a pool, through which water leaves the pool normally to the recirculation pump.

**EASILY CLEANABLE** is a characteristic of a surface or material that allows removal of dirt, stains or residue by normal cleaning methods.

**EFFECTIVE PARTICLE SIZE** is the theoretical size of sieve in mm that will pass 10 percent by weight of sand.

**ENFORCING AGENCY AGENT** is the health officer or director of environmental health or their designated registered ~~sanitarian~~ environmental health specialist representative.

**ENGINEER** is either a California licensed civil engineer or a California Registered Architect.

**EQUIPMENT AREA** is an area used for to house pool recirculation and water treatment purification equipment and all related piping appurtenances.

**FREEBOARD** is the vertical dimension between the top of the sand filter layer and the distribution piping of a sand type filter.

**HANDHOLD** is a structure located at or above the water line around the perimeter of the pool wall that provides a physical means for a pool user to grasp the pool side.

**HOSE BIBB** is a valve with a fitting for a hose.

**INLET** is a fitting or fixture through which ~~circulation~~ water enters the pool.

**LADDER** is a series of vertically separate treads or rungs either connected by vertical rail members or independently fastened to an adjacent vertical pool wall.

**LIVING UNIT** is any building or portion thereof that contains living facilities including provisions for sleeping.

**MAIN DRAIN** is a fitting, fixture or suction outlet located usually at or near the bottom of a pool through which water leaves the pool normally to the recirculation pump.

**MAXIMUM POOL USER LOAD** is the maximum number of persons allowed in a pool at any one time.

**MEDICAL POOL** is a special-purpose pool used by a state-recognized medical institution engaged in the healing arts under the direct supervision of licensed medical personnel for treatment of the infirm.

**OUTLET** is a fitting or fixture through which water is removed from the pool.

~~**OVERFLOW SYSTEM** is the system which includes perimeter-type overflow gutters, surface skimmers, surge or collector tanks, other surface water collective system components and their interconnecting piping.~~

**OZONE CONTACT CONCENTRATION** is the amount of ozone that is dissolved in the pool water.

**PERIMETER OVERFLOW SYSTEM** is a system which includes perimeter-type overflow gutters, surge capacity or similar surface water collective system components and their interconnecting piping.

**POOL OR PUBLIC POOL** is a constructed or prefabricated wholly artificial basin, chamber or tank constructed or prefabricated with impervious surfaces that is used, or intended to be used, primarily by bathers, and not for cleaning of the body or for individual therapeutic use for public swimming, diving or recreational bathing but does not include individual therapeutic tubs or baths where the main purpose is the cleaning of the body.

**POOL AREA** is the area within the pool enclosure as required in Section 3119B.

**POOL OPERATOR or OPERATOR** is a person who is responsible for maintaining compliance with all requirements relating to pool operation, maintenance and safety of pool users

**POOL USER or USER** is a person using a pool and adjoining deck areas for the purpose of water activities such as diving, swimming or wading.

**POOL VOLUME** is the amount of water expressed in gallons (liters), that a pool holds when filled.

**PRIVATE POOL** is any constructed pool, permanent or portable, which is intended for noncommercial use as a swimming pool by not more than three owner families and their guests.

Note: A single family residence is a Group R, Division 3 occupancy.

**PUBLIC POOL** is a pool other than a private pool.

**RADIUS OF CURVATURE** is the radius arc which denotes the curved surface from the point of departure from the springline of the pool to the pool bottom.

**READILY ACCESSIBLE** is capable of being reached easily for cleaning, repair, replacement or inspection without requiring a person to climb over or remove obstacles or to use devices such as portable ladders or chairs.

**READILY DISASSEMBLED** means capable of being taken apart by hand or by using only simple tools such as a screwdriver, pliers or open-end wrench.

**RECESSED STEPS STAIRS** is a riser/tread or series of risers/ and treads extending down into the pool from the deck with the bottom riser or tread terminating at flush or recessed back from the pool wall (thus creating a "stair well").

**RECESSED TREADS** are a series of vertically spaced cavities in the pool wall creating tread areas for step holes.

**RECIRCULATION SYSTEM** is the ~~interconnected system traversed by the recirculated water from the pool until it is returned to the pool, i.e., from the pool through the collector or surge tank, recirculation pump, filters, chemical treatment and heater (if provided), and returned to the pool.~~ system of hydraulic components designed to remove water from the pool to allow filtration, disinfection and return to the pool.

**RIMFLOW OVERFLOW SYSTEM** is a perimeter overflow system in which the overflow rim is at the same elevation with the deck.

**RISER** is the vertical portion of a step.

**SHALLOW POOL** is a pool that has a maximum water depth of ~~less than~~ 6 feet (1829 mm) or less.

**SLIP RESISTANT** is a ~~rough finish that is not abrasive to the bare foot.~~ is a surface having a coefficient of friction greater than 0.6.

**SPA POOL OR SPA** is a pool that is constructed to incorporate a water jet system, an aeration system or a combination of the two systems used in conjunction with water heated not higher than 104°F.

**SPECIAL PURPOSE POOL** is a pool constructed exclusively for a specific purpose, such as wading, instruction, diving, competition, spa, spray ground, water feature, wave pool or medical treatment.

**SPLASH ZONE** is the maximum distance the water from a spray ground can project horizontally.

**SPRAY GROUND** is a special purpose pool with no standing water in the splash zone and consists of an underground water reservoir with a recirculation system

from which water is directed through such means as sprays or jets for contact with pool users.

**SPRINGLINE** is the point from which the pool wall breaks from vertical and begins its arc in the radius of curvature.

**STAIRS** are a series of two or more steps, each consisting of a riser and tread.

**STEP** is a riser and tread.

**STEP HOLES** are a series of horizontal cavities vertically spaced in the pool wall creating tread areas for pool ingress and egress.

**STEP TREAD OR TREAD** is the horizontal part of the step.

~~**STEPS, RECESSED STEPS, LADDERS AND RECESSED TREADS** are those means of entry and exit to and from the pool which may be used in conjunction with each other.~~

**SURGE CHAMBER** is a reservoir or surge trench open to the atmosphere that receives water via gravity flow from the main drain line and surface overflow system and from which the pump draws water to the filtration and disinfection equipment.

**TREATMENT OF WATER** is the process of conditioning and disinfection of pool water by means of a combination of filtration and the addition of chemicals to the water.

**TURNOVER TIME** is the period of time, in hours, required minimum time necessary to circulate one complete a volume of the pool water equal to the pool capacity through the recirculation system.

**UNDERGROUND RESERVOIR** is the underground tank open to the atmosphere used in spray ground features to receive water via gravity from which a recirculation pump draws the water to the filtration and disinfection equipment and a separate pump takes water back to the spray ground water features.

**UNIFORMITY COEFFICIENT** is the ratio of the theoretical size of a sieve in mm that will pass 60 percent of the sand to the theoretical size of a sieve in mm that will pass 10 percent of the sand.

**WADING POOL** is a pool intended to be used for wading by small children and having a maximum water depth of 18 inches (457 mm) at the deepest point and a maximum water depth of 12 inches (305 mm) at the side walls.

**WATER FEATURE** means an interactive device or structure through which water is directed to the pool user such as a water fountain, water spray, dancing water jet, waterfall, dumping bucket or shooting water.

**WATER PARK** is a permanent fenced and gated complex with controlled access that consists of multiple water recreation attractions such as interactive water features or wave pools.

**WATERLINE** shall be defined in one of the following ways:

1. **Skimmer system.** The waterline shall be the midpoint of the operating range of the skimmers.
2. **Overflow system.** The waterline shall be the top edge of the overflow rim.

**WAVE POOL** is a pool designed for the purpose of producing breaking wave action in the water and is not primarily designed for standup surfing or bodyboarding.

3) Amend Section 3103B as follows:

**PLAN REVIEW, PERMITS, CONSTRUCTION AND FIELD INSPECTIONS**

**SECTION. 3103B**

**SPECIAL POOL CLASSIFICATIONS - PLAN REVIEW**

**3103B.1 ~~Spa pool.~~** ~~A spa pool is a pool, not used under medical supervision, that incorporates a water jet system, an aeration system or a combination of the two systems, and which may also utilize artificially heated water. The surface water area of a spa pool shall not exceed 250 square feet (23 m<sup>2</sup>), and the water depth shall not exceed 4 feet (1219 mm). Note: See also Section 3119B.1.2. A person proposing to construct, renovate or alter a pool, ancillary facility or equipment and any appurtenances shall submit plans and specifications detailing compliance with this Chapter to the enforcing agent for review and written approval prior to commencing construction. Proposed handicap facilities shall be shown on all plans. A local building department shall not issue a permit for a public pool or ancillary facility until the plans have been approved by the enforcing agent.~~

**3103B.2 ~~Special purpose pool.~~** ~~A special purpose pool is a pool intended to be used exclusively for a single purpose, such as wading, instruction, diving, competition, or for medical treatment where a licensed professional in the healing arts is in attendance. Plans submitted for approval pursuant to this section shall~~

be drawn to a scale of ¼ inch (6.4 mm) equals 1 foot (305 mm), except that plans for spa pools shall be drawn to a scale of 1 inch (25 mm) equals 1 foot (305 mm).

**3103B.3 Temporary training pool.** A temporary training pool is a pool intended to be used for instruction in swimming, having a maximum water depth of 36 inches (914 mm), and so constructed as to be readily disassembled for storage or for transporting to and reassembly to its original integrity at a different location. A temporary training pool shall be limited to a maximum use of three months at any one geographical location during any 12 month period. Within 30 working days of the receipt of plans and specifications, the enforcing agent shall notify the person submitting the plans and specifications of approval or disapproval.

**3103B.4 Wading pool.** A wading pool is a pool intended to be used for wading by small children and having a maximum depth of 18 inches (457 mm) at the deepest point and a maximum depth of 12 inches (305 mm) at side walls. The enforcing agent shall retain one copy of the approved plans and specifications and any subsequent changes or modifications. The approved plans shall be valid for a period of one year from the date of approval.

4) Amend Section 3104B as follows:

**SECTION 3104B**

**~~ACCESSIBILITY TO THE PHYSICALLY HANDICAPPED PERSON~~**

**CONSTRUCTION**

~~—Swimming pools and their appurtenances shall be in compliance with the requirements of the state architect for access to public accommodations by physically handicapped persons. Note: See Chapter 11 A. Pools, all ancillary facilities, equipment and appurtenances shall be constructed, renovated or altered in compliance with plans approved pursuant to Section 3103B.~~

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5) Amend Section 3105B as follows:

**SECTION 3105B**

**~~ALTERNATE EQUIPMENT, MATERIALS AND METHODS OF  
CONSTRUCTION~~**

**PLAN COMPLIANCE INSPECTIONS**

**3105B.1** ~~The enforcing agency may approve an alternate equipment, material, or method of construction, provided it finds that the proposed design is satisfactory and complies with the provisions of this chapter, that the equipment, material, method or work offered is, for the purpose intended, at least equivalent to that prescribed in suitability, strength, effectiveness, fire resistance, durability, safety and sanitation, or that the methods of installation proposed conform to other acceptable nationally recognized standards, and providing the alternate has been approved and its use authorized by the enforcing agency. The pool owner, operator or designated agent shall obtain inspections from the enforcing agent: 1) prior to applying gunite or plaster to the pool shell and 2) at the completion of construction prior to placing the pool into operation. No pool shall be placed in use without the written approval of the enforcing agent.~~

6) Amend Section 3106B as follows:

**POOL STRUCTURE**

**SECTION 3106B**

**POOL CONSTRUCTION**

**SPECIAL REQUIREMENTS FOR WATER PARK FACILITIES**

**3106B.1 Shell structural integrity Spray grounds.** ~~The pool shall be designed and durably built of reinforced concrete, or material equivalent in strength, watertight, and able to withstand anticipated stresses under both full and empty conditions, taking into consideration climatic effect, geological conditions, integration of the pool with other structures and similar factors. The provisions of this subsection shall apply to a spray ground facility. A spray ground facility that uses non-recirculating water from a potable source does not have to meet the requirements of Sections 3106B.1.6 through 3106B.1.20. Requirements for wastewater disposal from the facility shall be determined by the local agency that has jurisdiction. All applicable provisions of this Chapter shall apply to a spray ground pool unless specifically addressed in this section.~~

**3106B.1.1** All parts of the spray ground shall be designed and constructed so that there are no safety hazards.

**3106B.1.2 Walking Surface.** A minimum four-foot wide walking surface shall extend around the perimeter of a spray ground water feature sufficient

that the spray will not exceed the walkway area in normal conditions including light wind conditions.

**3106B.1.3** Spray nozzles at spray ground water features shall be designed and maintained so as not to inflict physical damage to users. Design and construction shall include evaluation of forces of the spray nozzle including velocity, pressure and total force in proximity to users' eyes and other body orifices.

**3106B.1.4** There shall be no standing water within the splash zone.

**3106B.1.5** The spray ground water features shall be designed, constructed and installed so that they do not create a safety hazard. Nozzles that spray from the ground level shall be flush with the ground with openings no greater than one-half inch. Spray ground water features that extend above the ground must be high enough so they can be seen clearly and are not a trip hazard.

**3106B.1.6** The splash zone shall be sloped so that only water from the spray ground water feature flows back to the underground reservoir. Areas adjacent to the splash zone shall be sloped away from the spray ground to deck drains or other surface water disposal systems.

**3106B.1.7** All foggers and misters that produce finely atomized mists shall be supplied directly from a potable water source and not from the underground reservoir.

**3106B.1.8** The recirculation system shall not be directly interconnected with the pump used to provide water for the spray ground water feature.

3106B.1.9 The control systems for the spray ground water feature pump and recirculation system pump shall be electrically interconnected so when the recirculation pump is off, the spray ground water feature pump also is off.

3106B.1.10 The spray ground shall have an underground reservoir or treatment tank constructed of material which is inert, corrosion resistant, nontoxic and watertight including materials such as concrete, fiberglass or stainless steel which can withstand all anticipated loadings under full and empty conditions.

3106B.1.11 The total volume of the underground reservoir shall be at least 4,000 gallons and a minimum of three times the gpm flow rate of all the spray ground pumps and the recirculation pump combined.

3106B.1.12 The turnover time shall be one-half hour or less.

3106B.1.13 The suction intake for the spray ground pump in the underground reservoir shall be located adjacent to the recirculation return line.

3106B.1.14 The suction intake for the recirculation pump shall be located in the lowest portion of the underground reservoir and on the opposite side from the suction intake for the spray ground pump.

3106B.1.15 The underground reservoir shall have an access for cleaning and inspection.

3106B.1.16 The underground reservoir shall be equipped with an automatic make up water fill device through an air gap or be protected by an approved backflow prevention device as required by the California Department of Public

Health under Sections 7601 to 7605, Article 2, Title 17, California Code of Regulations

**3106B.1.17** Ultraviolet light disinfection shall be used to supplement disinfection methods required in this Chapter unless another treatment process is provided that has been determined by the California Department of Public Health to be capable of providing at least the equivalent level of reduction of cryptosporidium as the ultraviolet light disinfection system specified in this section. The ultraviolet light disinfection unit shall comply with the NSF/ANSI 50-2010 performance standard.

**3106B.1.18** An accurately calibrated ultraviolet light intensity meter that has been properly filtered to restrict its sensitivity to the disinfection spectrum shall be installed in the wall of the disinfection chamber at the point of greatest water depth from the tube or tubes.

**3106B.1.19** The ultraviolet light unit shall be located between the spray ground treatment tank discharge pump and the spray features.

**3106B.1.20** The ultraviolet system must be equipped with an automatic shutdown feature to inactivate the jet spray pump if the ultraviolet dosage rate drops below 40 mj/cm<sup>2</sup>.

**3106B.1.21** Artificial lighting shall be provided at all spray ground pads which are used at night or which do not have adequate natural lighting so that all portions of the spray pad and deck may be seen easily. Six foot candles of light shall be provided on the pool deck and the water feature area. Lighting that may be exposed to the feature pool water shall not exceed 15 volts, shall

be installed in accordance with the manufacturer's specifications and be approved for such use by UL or NSF.

**3106B.2 Finish. Wave pools.** ~~The finished pool shell shall be lined with a smooth waterproof interior finish that will withstand repeated brushing, scrubbing and cleaning procedures. The interior pool finish shall completely line the pool to the tile lines, coping or cantilevered deck. Wave pools shall be constructed in compliance with the provisions of Section 115952 Health and Safety Code.~~

**3106B.3 Finish color.** ~~The finish color shall be white except for:~~

- ~~1. Lane and other required pool markings described in Section 3109B;~~
- ~~2. Handholds;~~
- ~~3. Copings;~~
- ~~4. The top surface edges of benches; and~~
- ~~5. The edge of spa steps.~~

**Exception:** ~~A spa pool shall be permitted to be finished in a light (pastel) color other than white when approved by the enforcing agency.~~

7) Amend Section 3107B as follows:

**SECTION 3107B**

**~~ADDITIONAL REQUIREMENTS FOR A TEMPORARY TRAINING POOL~~**

**ALTERNATIVE EQUIPMENT, MATERIALS AND METHODS OF**

**CONSTRUCTION**

~~**3107B.1** A temporary training pool shall comply with this section in addition to the provisions contained in Section 3106B. The enforcing agent may approve an alternative equipment, material or method of construction provided it finds that the proposed design is satisfactory and complies with the provisions of this Chapter, that the equipment, material, method or work offered is, for the purpose intended, at least equivalent to that prescribed in suitability, strength, effectiveness, fire resistance, durability, safety and sanitation or that the methods of installation proposed conform to other acceptable nationally recognized standards.~~

~~**3107B.1.1 Installation site.** A temporary training pool shall be installed on a paved level surface extending at least 10 feet (3048 mm) beyond all pool walls.~~

~~**3107B.1.2 Cover.** The temporary training pool shall be provided with a solid cover. The cover shall be installed during periods when the pool is not open for use and shall be secured to the pool in a manner to prevent unauthorized removal.~~

~~**3107B.1.3 Design.** The pool cover shall be designed to support a uniform live load of 40 pounds per square foot (1.9 kN/m<sup>2</sup>). The structural design of the pool and cover shall be approved by a California registered professional engineer.~~

**3107B.2** -The enforcing agent shall require that evidence or proof be submitted to substantiate claims that may be made regarding the use of alternative equipment, material or method of construction.

**3107B.3** Whenever there is insufficient evidence of compliance with the provisions of this Chapter, the enforcing agent may require tests as proof of compliance to be made at no expense to the enforcing agent. Tests shall be made in accordance with approved standards, but in the absence of such standards, the enforcing agent shall specify the test procedure.

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8) Amend Section 3108B as follows:

**SECTION 3108B**

**POOL GEOMETRY POOL CONSTRUCTION**

**3108B.1 Dimensions and Slopes. Pool shell.** ~~The dimensions and slopes of a pool shall conform to the appropriate Figure 31B-1 through 31B-3.~~

~~**Exception:** A special-purpose pool shall be permitted a depth greater than 3 1/2 feet (1067 mm) at the shallowest end.~~

~~The pool shall be built of reinforced concrete or material equivalent in strength, shall be watertight and shall be able to withstand anticipated stresses under both full and empty conditions taking into consideration factors such as climatic effects, geological conditions and integration of the pool with other structures.~~

**3108B.2 Drainable. Finish.** ~~The pool shall be completely drainable through a main drain which shall be located at the deepest point in the pool. The finished interior pool shell shall have a solid waterproof finish that is smooth and slip resistant and that will withstand repeated brushing, scrubbing and cleaning procedures. The interior pool finish shall completely line the pool to the tile lines, coping or cantilevered deck.~~

**3108B.3 Dimensional tolerances. Finish color.** ~~A construction tolerance shall be permitted on all dimensions in Figures 31B-1, 31B-2 and 31B-3, not to exceed 2 inches (51mm) except that the tolerance of the water level of a pool with a nonadjustable overflow system shall not exceed 1/8 inch (3.2 mm). The finish color shall be white except for the following which shall be of contrasting color:~~

1. Lane and other required pool markings described in Section 3110B
2. The top surface edges of benches in spa pools
3. The edge of pool steps
4. Tiles installed at the design water level

**Exception:** A spa pool may be finished in a color other than white when approved by the enforcing agent.

**3108B.4 ~~Slope break from shallow to deep water.~~ Projections and recessed areas.** When a pool has a change in bottom slope from shallow to deep water, flush-mounted devices for fastening a safety rope and buoys across the pool shall be installed where the water depth is 4 1/2 feet (1372 mm). The pool shell shall not have projections or recessed areas except for pool inlets and outlets as specified in Section 3137B.

**Exception:** This section shall not apply to handholds, recessed treads, steps, ladders, stairs, handrails, skimmers or perimeter overflow systems.

9) Amend Section 3109B as follows:

**SECTION 3109B**

**PERMANENT MARKINGS- POOL GEOMETRY**

**3109B.1 Lane markings. Dimensions and slopes General.** Slip-resistant lane lines or other markings at the bottom of the pool shall not exceed 12 inches (305 mm) in width. A pool shall conform to the appropriate criteria in Figures 31B-1 through 31B-6.

**Exception:** A special purpose pool shall be exempted from construction standards that are not applicable to the proposed use.

**3109B.2 Depth marking line. Drainable.** There shall be installed a straight line of slip-resistant tile, 4 inches (102 mm) wide, of contrasting color across the bottom of the pool from where the water depth is 4 1/2 feet (1372 mm).

**Exception:** Pools having a maximum depth of five feet or less shall not be required to have a depth marking line.

The pool shall be completely drainable through a main drain which shall be located at the deepest point in the pool.

**3109B.3 Decorative designs. Dimensional tolerances.** Designs on the bottom or walls of the pool which are shaped in a form that might reasonably be mistaken for, or give the illusion of being, a human form shall be prohibited. A construction tolerance shall be permitted on all dimensions in Figures 31B-1 through 31B-3 not to exceed 2 inches (51 mm) except that the tolerance of the

water level of a pool with a nonadjustable overflow system shall not exceed 1/8 inch (3.2 mm).

**3109B.4 ~~Water depth markers. Bottom slope break from shallow to deep water.~~**

**3109B.4.1 ~~General.~~** ~~The water depth shall be clearly marked at the following locations:~~

- ~~— 1. Maximum depth;~~
- ~~— 2. Minimum depth;~~
- ~~— 3. Each end;~~
- ~~— 4. At the break in the bottom slope between the shallow and deep portions of the pool (see also Section 3108B.4); and~~
- ~~— 5. On the perimeter of the pool at distances not to exceed 25 feet (7620 mm)~~

~~— **Exception:** A spa or wading pool shall have a minimum of two depth markers indicating the maximum depth.~~

**3109B.4.2 ~~Location.~~** ~~Depth markers shall be located on the vertical pool walls at each end and side of the pool at or above the water level. If a pool exceeds 20 feet (6096 mm) in width, additional markers shall be located on the edge of the deck next to the pool.~~

~~— **Exception:** If depth markers cannot be located on the vertical pool walls above the waterline because of the pool design, the depth markers shall be located so as to be clearly visible to bathers in the pool.~~

~~**3109B.4.3 Tolerance.** Depth markers shall be positioned to indicate the water depth accurate to the nearest 6 inches (152 mm).~~

~~**3109B.4.4 Size of markers.** Depth markers shall:~~

- ~~—1. Have numerals a minimum of 3 inches (76 mm) in height and of a color contrasting with the background.~~
- ~~—2. Be made of a durable material that is resistant to weathering, and~~
- ~~—3. Be slip resistant when they are located on the pool deck.~~

Any portion of a pool having a water depth of 4 1/2 feet (1372 mm) or less shall have a uniform slope that shall not exceed 1 foot (305 mm) of vertical in 10 feet (3050 mm) of horizontal. In pools with water depths greater than 4 1/2 feet (1372 mm), the slope shall meet the requirements in Figures 31B-1 through 31B-4. There shall be a uniform water depth along the entire base of the stairs.

10) Amend Section 3110B as follows:

**SECTION 3110B**

**~~STEPS, RECESSED STEPS, LADDERS, AND RECESSED STAIRS (TREADS)~~**

**PERMANENT MARKINGS**

**3110B.1 Construction. General.** ~~A means of entry and exit to and from the pool shall consist of steps, recessed steps, ladders or stairs, or a combination of them. One means of entry and exit shall be provided in the shallowest portion of a pool if the vertical distance from the bottom of the pool to the deck is over 2 feet (610 mm). A second means of entry and exit shall be provided in the deep portion of a pool having a depth greater than 4 1/2 feet (1372 mm). Where the width of the pool exceeds 30 feet (9144 mm), such means of entry and exit shall be provided at each side, not more than 100 feet (30,480 mm) apart. No markings or designs shall be permitted on the pool shell except for slip resistant lane markings, depth marking lines and safety markings.~~

**3110B.2 Ladders Lane markings.** ~~Ladders with a handhold shall be corrosion resistant and shall be equipped with slip-resistant tread surfaces. Ladders shall be rigidly installed and shall provide a clearance of not less than 3 inches (76 mm) or more than 5 inches (127 mm) between any part of the ladder and the pool wall. Slip resistant lane lines or other markings at the bottom of the pool shall not exceed 12 inches (305 mm) in width.~~

**3110B.3 Stairs. Depth marking line.** ~~Each step of a stair shall have the same dimensions with a tread not less than 12 inches (305 mm) wide, except that if the~~

~~top step is curved convexly, the top step tread shall not be less than 18 inches (457 mm) wide as measured at the point of maximum curvature. Risers shall be uniform and shall not exceed 12 inches (305 mm) in height. A safety railing shall be provided, extending from the deck to not less than a point above the top of the lowest step and with the upper railing surface not less than 28 inches (711 mm) above the deck. There shall be installed a straight line of slip resistant tile 4 inches (102 mm) wide of a color contrasting with the background of the pool shell across the bottom of the pool where the water depth is 4 1/2 feet (1372 mm).~~

**Exception:** Pools having a maximum water depth of 5 feet (1524 mm) or less shall not be required to have a depth marking line.

**3110B.4 ~~Steps and step holes.~~ Water depth markers.** ~~Steps and step holes shall have a minimum tread of 5 inches (127 mm), width of 14 inches (356 mm) and shall be designed to be readily cleaned.~~

**3110B.4.1 General.** The water depth shall be clearly marked at the following locations:

1. Maximum depth

2. Minimum depth

3. Each end

4. At the break in the bottom slope between the shallow and deep portions of the pool (see also Section 3109B.4)

5. Along the perimeter of the pool at distances not to exceed 25 feet (7620 mm)

**Exception:** A spa or wading pool shall have a minimum of two depth markers indicating the maximum depth.

**3110B.4.2 Location.** Depth markers shall be located on the vertical pool walls at each end and side of the pool at or above the water level. If a pool exceeds 20 feet (6096 mm) in width, additional markers shall be located on the deck next to the edge of the pool.

**Exception:** If depth markers cannot be located on the vertical pool walls above the water line because of the pool design, the depth markers shall be located so as to be clearly visible to pool.

**3110B.4.3 Tolerance.** Depth markers shall be positioned to indicate the water depth accurate to the nearest 6 inches (152 mm).

**3110B.4.4 Size of markers.** Depth markers shall:

1. Have numerals a minimum of 3 inches (76 mm) in height and of a color contrasting with the background
2. Be made of a durable material that is resistant to weathering
3. Be slip resistant when they are located on the pool deck

**3110B.5 Hand railings.** Hand railings shall be provided at the top of both sides and shall extend over the coping or edge of the deck for each ladder and step hole.

**3110B.6 Steps for a spa pool.** Each step of a spa pool shall have a tread width not less than 12 inches (305 mm). Risers shall not exceed 9 inches (229 mm) in height when one handrail is provided, or 12 inches (305 mm) in height when two handrails are provided. A handrail shall be installed over the steps, with the

leading railing edge extending up to a point not less than 12 inches (305 mm)  
from the plane of the bottom riser. The steps shall be located where the deck is  
at least 4 feet wide (1219 mm).

DRAFT

11) Amend Section 3111B as follows:

**SECTION 3111B**

**HANDHOLDS**

**STEPS, RECESSED STEPS, LADDERS, AND RECESSED STAIRS (TREADS)**

**3111B.1 General. Construction.** ~~Every pool shall be provided with handholds (perimeter overflow system, bull-nosed coping or cantilevered decking) around the entire perimeter installed not greater than 9 inches (229 mm) above the waterline.~~

~~—**Exception:** Handholds are not required for wading pools.~~

~~A means of entry and exit to and from the pool shall consist of steps, recessed steps, ladders, stairs or a combination of these. One means of entry and exit shall be provided in the shallowest portion of a pool if the vertical distance from the bottom of the pool to the deck is over 2 feet (610 mm). A second means of entry and exit shall be provided in the deep portion of a pool having a depth greater than 4 1/2 feet (1372 mm). Where the width of the pool exceeds 30 feet (9144 mm), such means of entry and exit shall be provided at each side, not more than 100 feet (30,480 mm) apart.~~

~~**Note:** For illustrated diagrams pertaining to this section see Figures 31B-1 through 31B-4.~~

**3111B.2 Ladders.** ~~For special-use pools used for instruction or competitive swimming, a handhold at water level similar to the rim of a perimeter overflow~~

system is required. Ladders with a handhold shall be corrosion resistant and shall be equipped with slip resistant tread surfaces. Ladders shall be rigidly installed and shall provide a clearance of not less than 3 inches (76 mm) or more than 5 inches (127 mm) between any part of the ladder and the pool wall.

**3111B.3 Stairs.** ~~Where perimeter overflow systems are not provided, a bull-nosed coping or cantilevered decking or reinforced concrete, or material equivalent in strength and durability, with rounded, slip-resistant edges shall be provided. The overhang for either bull-nosed coping or cantilevered decking shall not exceed 2 inches (51 mm) or be less than 1 inch (25 mm) and shall not exceed 2 1/2 inches (64 mm) in thickness.~~

**Exception:** ~~The enforcing agency may accept handholds other than those specified for spa pools.~~

Each step of a stair shall have the same dimensions with a tread not less than 12 inches (305 mm) wide, except that if the top step is curved convexly, the top step tread shall not be less than 18 inches (457 mm) wide as measured at the point of maximum curvature. Risers shall be uniform and shall not exceed 12 inches (305 mm) in height. A safety railing shall be provided , extending from the deck to not less than a point above the top of the lowest step and with the upper railing surface not less than a point above the top of the lowest step and with the upper railing surface not less than 28 inches (711 mm) above the deck.

**3111B.4 Steps and step holes.** Steps and step holes shall have a tread of 5 inches (127 mm) and a width of 14 inches (356 mm) and shall be designed to be readily cleaned.

**3111B.5 Hand railings.** Hand railings shall be provided at the top of both sides of each ladder and step hole and shall extend over the coping or edge of the deck.

**3111B.6 Steps for a spa pool.** Each step of a spa pool shall have a tread width not less than 12 inches (305 mm). Risers shall not exceed 9 inches (229 mm) in height when one hand railing is provided or 12 inches (305 mm) in height when two hand railings are provided. A hand railing shall be installed over the steps with the leading railing edge extending up to a point not less than 12 inches (305 mm) from the plane of the bottom riser. The steps shall be located where the deck is at least 4 feet (1219 mm) wide.

DRAFT

12) Amend Section 3112B as follows:

**SECTION 3112B**

**DIVING BOARDS HANDHOLDS**

**3112B.1 General. General.** ~~Diving boards and their supports, platforms and steps shall be substantially constructed and shall be of sufficient structural strength to carry the maximum anticipated load. Steps shall be of corrosion-resistant material, easily cleanable and of slip resistant design. Every pool shall be provided with handholds (perimeter overflow system, bull-nosed coping or cantilevered decking) around the entire perimeter installed not greater than 9 inches (229 mm) above the waterline.~~

**Exception:** ~~Handholds are not required for wading pools.~~

**3112B.2 Railings.** ~~Handrails shall be provided at all steps and ladders leading to diving boards more than 1 meter above the water, except those steps or ladders set 15 degrees or less from the vertical. Guardrails extending to a point on the platform directly above the water's edge shall be provided on both sides of all platforms and diving boards which are over 1 meter high. Guardrails shall be 36 inches (914 mm) above the platform or diving board. For special use pools used for instruction or competitive swimming, a handhold at water level similar to the rim of a perimeter overflow system is required.~~

**3112B.3** ~~Where perimeter overflow systems are not provided, a bull-nosed coping or cantilevered decking of reinforced concrete, or material equivalent in~~

strength and durability, with rounded slip resistant edges shall be provided. The overhang for either bull-nosed coping or cantilevered decking shall not exceed 2 inches (51 mm) or be less than 1 inch (25 mm) and shall not exceed 2 1/2 inches (64 mm) in thickness.

**Exception:** The enforcing agent may accept other handholds for spa pools.

DRAFT

13) Amend Section 3113B as follows:

**Section 3113B**

**POOL DECKS ~~DIVING~~ BOARDS AND PLATFORMS**

**3113B.1 - ~~General.~~ General.** A minimum continuous and unobstructed 4 foot (1219 mm) wide slip-resistant, nonabrasive deck area of concrete or like material shall be provided flush with the top of the pool shell wall extending completely around the pool, and the deck area shall further extend 4 feet (1219 mm) on both sides and rear of any diving board or slide and their appurtenances. The deck width shall be measured from the poolside edge of the coping lip.

**~~—~~Exceptions:**

- ~~1.~~ A deck at least 4 feet (1219 mm) in width shall extend around 50 percent or more of the perimeter of a spa pool. For spa pools that have their walls extending above the ground or floor level, the deck area requirement shall apply at the ground or floor level unless otherwise specified by the enforcing agency.
- ~~2.~~ The deck width separating a spa pool from an adjacent pool shall not be less than 6 feet (1829 mm) wide.
- ~~3.~~ The deck may be omitted from around a temporary training pool.
- ~~4.~~ [DCA-AC] Any mechanism provided to assist persons with disabilities in gaining entry into the pool and in exiting from the pool shall comply with Chapter 11B, Section 1104B4.3, Participation Areas.

Diving boards and platforms shall be anchored to the pool deck, constructed of corrosion resistant material, designed and constructed to be easily cleanable and finished with a durable slip resistant material.

**3113B.2 Deck drainage. Railings and steps.** ~~The pool deck surfaces shall be sloped a minimum of 1/4 inch (6.4 mm) per foot to deck drains or other approved surface water disposal areas. The pool deck surface shall not drain into the pool, its perimeter overflow channel, into an adjoining spa or other pool or be connected to the recirculation system.~~

**Note:** ~~A deck drain system of one 4-inch (102 mm) drain inlet per 400 square feet (37 m<sup>2</sup>) of tributary deck area, with drains spaced 25 feet (7620 mm) apart, usually provides adequate surface water disposal.~~

Diving boards or platforms greater than 18 inches (456 mm) in height above the deck shall be provided with a ladder or stairs for access. Handrails shall be provided at all ladders and stairs leading to diving boards or platforms more than 1 meter above the water. Diving boards and platforms that are over 1 meter above the water shall have guardrails on both sides of the diving board or platform that extend to a point on the platform directly above the water's edge. Guardrails shall be 36 inches (914 mm) above the diving board or platform.

**3113B.3 Coping. Dimensions.** ~~Pool coping shall be slip resistant. Dimensions for diving boards or platforms shall conform to those shown in Figures 31B-1 and 31B-2. Platforms and diving boards greater than 3 meters above the water shall conform to the USA Diving Rules and Codes Part 1, Subpart A and Appendix B, effective January 1, 2010.~~

~~**3113B.4 Coverings.** Artificial covering shall be permitted on the deck area when approved by the enforcing agency.~~

~~**Note:** Deck slopes to provide proper drainage may vary with the texture of the surface. It is recommended that the minimum slope be increased if artificial covering or exposed aggregate concrete surface is contemplated.~~

~~**3113B.5** Handrails shall be provided around the perimeter of any raised deck of a temporary training pool.~~

~~**3113B.6 Unpaved areas.** Landscape plants, flower beds or similar unpaved areas shall not be located within 4 feet (1219 mm) of a spa pool.~~

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14) Amend Section 3114B as follows:

**SECTION 3114B**

**POOL LIGHTING POOL DECKS**

**3114B.1 - ~~General.~~ General.** ~~Where pool lighting is provided, it shall be such that lifeguards or other persons may observe, without interference from direct and reflected glare from the lighting sources, every part of the underwater area and swimming pool surface, all diving boards or other pool appurtenances.~~

~~**Notes:** See (Part 3) Article 680 for electrical installation requirements.~~

A minimum continuous and unobstructed 4 foot wide (1219 mm) slip resistant, cleanable, nonabrasive deck area of concrete or like material shall be provided flush with the top of the pool shell wall coping extending completely around the pool, and the deck area shall further extend 4 feet (1219 mm) on both sides and rear of any diving board, fixed handicap device or slide and their appurtenances. The deck width shall be measured from the poolside edge of the coping lip.

**3114B.2 ~~Nighttime use.~~ Deck between pools and/or spas.** ~~Pools used at night shall be equipped with underwater light fixtures that will provide complete illumination to all underwater areas of the pool with no blind spots. Illumination shall enable a lifeguard or other persons to determine whether:~~

- ~~1. A bather is lying on the bottom of the pool, and~~
- ~~2. The pool water conforms to the definition of "Clear pool water".~~

**Exception:**  ~~Pools provided with a system of overhead lighting fixtures, where it can be demonstrated to the enforcing agency that the system is equivalent to the underwater fixture system.~~

Where multiple pools and/or spas are built adjacent to each other, the deck width separating them shall be a minimum of 6 feet (1830 mm).

**3114B.3 Deck area lighting. Deck slope.**  ~~Where the pool is to be used at night, pool deck areas shall be provided with lighting so that persons walking on the deck can identify hazards. Lighting fixtures shall be aimed toward the deck area and away from the pool surface insofar as practical. The pool deck surface shall be sloped away from the pool a minimum of 1/4 inch (6.4 mm) per 1 foot (305 mm) to a deck drainage system and constructed and finished to prevent water ponding.~~

**3114B.4 Deck covering.**  ~~Deck coverings or other materials that are not equivalent to concrete in strength, durability and slip resistance and are not able to withstand repeated brushing, scrubbing or cleaning procedures shall not be installed or used within 4 feet (1219 mm) of the pool.~~

15) Amend Section 3115B as follows:

**~~ANCILLARY AREAS AND FACILITIES~~**

**~~SECTION 3115B~~**

**~~BATHHOUSE, DRESSING, SHOWER, AND TOILET FACILITIES~~**

**POOL LIGHTING**

**3115B.1 General.** ~~Shower and dressing facilities shall be provided for users of a pool.~~

**~~—Exceptions:~~**

- ~~—1. Shower and dressing facilities may not be required when bathers have access to such facilities in adjacent living quarters.~~
- ~~—2. Public toilet facilities may be omitted when bathers have access to toilet facilities either in living quarters located not more than 300 feet (91,440 mm) in travel distance from the pool, or in an adjacent building such as a recreational facility, clubhouse or cabana.~~

Where pool lighting is provided, it shall be such that lifeguards or other persons may observe, without interference from direct and reflected glare from the lighting sources, every part of the underwater area and swimming pool surface, all diving boards or other pool appurtenances. If underwater or deck surface lighting is not operational, the operator of the pool shall secure the pool area and not permit any use of the pool after dark and shall post the same sign as required in Section 3120B.9.

**Notes:** See Part 3, Article 3-680, Title 24, California Code of Regulations for electrical installation requirements.

**3115B.2 Number of sanitary facilities. Nighttime use.** For the purpose of this subsection, one bather shall be considered for every 15 square feet (1.39 m<sup>2</sup>) of pool water surface area.

~~3115B.2.1 Showers.~~ One shower shall be provided for every 50 bathers.

~~3115B.2.2 Toilets.~~ Separate toilet facilities shall be provided for each sex.

One toilet shall be provided for every 60 women, and one toilet plus one urinal for every 75 men.

~~3115B.2.3 Lavatories.~~ One lavatory shall be provided for every 80 bathers.

Pools used at night shall be equipped with underwater lighting fixtures that will provide complete illumination to all underwater areas of the pool with no blind spots. Illumination shall enable a lifeguard or other persons to determine whether:

(1)1. A bather pool user is lying on the bottom of the pool, and

(2)2. The pool water conforms to the definition of "Clear pool water."

**Exception:** Pools provided with a system of overhead lighting fixtures where it can be demonstrated to the enforcing agent that the system is equivalent to the underwater lighting fixture system.

**3115B.3 Construction. Deck area lighting.**

~~3115B.3.1 Floors.~~ Floors shall have a hard, nonabsorbent surface, such as portland cement concrete, ceramic tile or other approved material, which extends upwards onto the wall at least 5 inches (127 mm) with a coved base.

Floors which may be walked on by a wet bather shall be slip resistant. Floors shall be sloped not less than 1/4 inch (6.4 mm) per foot to floor drains or other approved surface water disposal areas. Carpeting and other similar artificial floor covering shall not be permitted on shower and toilet room floors.

**Note:** Rough rotary, raised rubber or wood float finish of concrete usually provides a slip resistant finish.

**3115B.3.2 Interior wall surfaces.** The materials used in the walls, except for structural elements, shall be of a type which is not adversely affected by moisture.

**3115B.3.3 Privacy.** All doors and windows shall be arranged to prevent viewing of the interior from any portion of the building used by the opposite sex and from view from the outdoors. View screens shall be permitted for this purpose.

Where the pool is to be used at night, pool deck areas shall be provided with lighting so that persons walking on the deck can identify hazards. Lighting fixtures shall be aimed towards the deck area and away from the pool surface insofar as practical.

**3115B.4 Water supply.**

~~3115B.4.1 Showers and lavatories shall be provided with hot and cold water faucets.~~

~~3115B.4.2 Tempered water shall be permitted in lieu of individual hot and cold water faucets.~~

~~3115B.4.3 A means to limit the hot water to 110° F (61° C) maximum shall be provided to prevent scalding. This temperature limit control shall not be adjustable by the bather.~~

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16) Amend Section 3116B as follows:

**ANCILLARY AREAS AND FACILITIES**

**SECTION 3116B DRINKING FOUNTAINS**

**BATHHOUSE, DRESSING, SHOWER, AND TOILET FACILITIES**

~~One guarded jet drinking fountain shall be provided for the first 250 bathers and an additional fountain shall be provided for each additional 200 bathers or fraction thereof. The number of bathers shall be determined according to Section 3115B.2.~~

~~**Exception:** Drinking fountains shall not be required when drinking water is available at adjacent living quarters, or in an adjacent building such as a bathhouse, cabana, clubhouse or recreational facility.~~

**3116B.1 Public toilets, showers and dressing facilities shall be provided for pool users.**

**Exceptions:**

1. Showers and dressing facilities are not required when pool users have access to these facilities in adjacent living quarters.
2. Public toilet facilities may be omitted when pool users have access to toilet facilities either in living quarters located not more than 300 feet (91,440 mm) in travel distance from the pool or in an adjacent building such as a recreational facility, clubhouse, bathhouse or cabana.

**3116B.2 Sanitary facilities.** For the purpose of this Section, one pool user shall be considered for every 15 square feet (1.39 m<sup>2</sup>) of pool water surface area.

**3116B.2.1 Showers.** One shower shall be provided for every 50 pool users or fraction thereof.

**3116B.2.2 Toilets.** Separate toilet facilities shall be provided for each sex. One toilet shall be provided for every 60 women or fraction thereof and one toilet plus one urinal for every 75 men or fraction thereof.

**3116B.2.3 Lavatories.** One lavatory shall be provided for every 80 pool users or fraction thereof.

**3116B.2.4 Soap Dispensers.** Showers and lavatories shall be provided with permanently installed soap dispensers.

**3116B.2.5 Towels and Toilet Tissue.** Single use towels or hot air blowers and toilet tissue shall be provided in permanently installed dispensing devices.

**3116B.3 Construction.**

**3116B.3.1 Floors.** Floors shall have a durable, nonabsorbent, slip resistant surface such as concrete or ceramic tile which extends upward onto the wall at least 4 inches (102 mm) with a minimum 3/8 inch (9.6 mm) radius coved base. Floors which may be walked on by a wet pool user shall be slip resistant. Floors shall be sloped not less than 1/4 inch (6.4 mm) per foot to floor drains. Carpeting or other absorbent material is not permitted on shower, toilet, dressing facility or locker room floors.

**3116B.3.2 Interior surfaces.** Interior surfaces such as walls, doors, shower partitions, toilets, dressing facilities, locker rooms and lockers shall be light colored, smooth, free of open joints and cracks, nonabsorbent and cleanable.

**3116B.3.3 Privacy.** All doors and windows of any bathhouse, shower, toilet, dressing facility or locker room shall be arranged to prevent viewing of the interior from the exterior.

**3116B.4 Water supply.**

**3116.B.4.1** Showers and lavatories shall be provided with hot and cold running water under pressure.

**3116B.4.2** A temperature control device limiting the plumbing fixtures that dispense hot water to 110° F (61° C) maximum shall be provided on the water supply system. This temperature limit control shall not be adjustable by the pool user.

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17) Amend Section 3117B as follows:

**SECTION 3117B**

**HOSE BIBBS DRINKING FOUNTAINS**

~~Hose bibbs shall be provided for each pool and located so that all portions of the pool deck area may be reached with a 75 foot (22,860 mm) length of hose attached to the hose bibb. Hose bibbs shall be located so that they do not constitute a safety hazard and shall be protected against backflow. One guarded jet drinking fountain shall be provided within the pool enclosure for the first 250 pool users and an additional guarded jet drinking fountain shall be provided for each additional 200 pool users or fraction thereof. The number of pool users shall be determined according to Section 3116B.2.~~

**Exception:** Drinking fountains shall not be required when drinking water is available in adjacent living quarters or in an adjacent building such as a recreational facility, clubhouse, bathhouse or cabana.

18) Amend Section 3118B as follows:

**SECTION 3118B**

**ENCLOSURE OF POOL AREA HOSE BIBBS**

~~**3118B.1 Enclosure.** The pool shall be enclosed by one or a combination of the following: a fence, portion of a building, wall or other approved durable enclosure. Doors, openable windows or gates of living quarters or associated private premises shall not be permitted as part of the pool enclosure. The enclosure, doors and gates shall meet all of the following specifications:~~

- ~~1. The enclosure shall have a minimum effective perpendicular height of 5 feet (1524 mm) as measured from the outside as depicted in Figures 31B-4 and 31B-5~~
- ~~2. Openings, holes or gaps in the enclosure, doors and/or gates shall not allow the passage of a 4-inch (102 mm) diameter sphere. The bottom of the enclosure shall be within 2 inches (51 mm) of the finished grade.~~
- ~~3. The enclosure shall be designed and constructed so that it cannot be readily climbed by small children. Horizontal and diagonal member designs, which might serve as a ladder for small children, are prohibited. Horizontal members shall be spaced at least 48 inches (1219 mm) apart. Planters or other structures shall not be permitted to encroach upon the clear span area as depicted in Figure 31B-5. Chain link may be used provided that the openings are not greater than 1 $\frac{3}{4}$  (44 mm) inches measured horizontally.~~

~~3118B.2 Gates.~~ Gates and doors opening into the pool enclosure shall also meet the following specifications:

- ~~1. Gates and doors shall be equipped with self-closing and self-latching devices. The self-latching device shall be designed to keep the gate or door securely closed. Gates and doors shall open outward away from the pool except where otherwise prohibited by law. Hand-activated door or gate-opening hardware shall be located at least 3½ feet (1067 mm) above the deck or walkway.~~
- ~~2. Except as otherwise provided herein, gates and doors shall be capable of being locked during times when the pool is closed. Exit doors which comply with Chapter 10 shall be considered as meeting these requirements.~~

~~— **Exception:** Doors leading from areas of hotels and motels, as defined in the Business and Professions Code Section 25503.16(b), which are open to the general public, e.g., restaurants, lobbies, bars, meeting rooms, and retail shops, need not be self-latching.~~
- ~~3. The pool enclosure shall have at least one means of egress without a key for emergency purposes. Unless all gates or doors are so equipped, those gates and/or doors which will allow egress without a key shall be clearly and conspicuously labeled in letters at least 4 inches (102 mm) high "EMERGENCY EXIT."~~
- ~~4. The enclosure shall be designed and constructed so that all persons will be required to pass through common pool enclosure gates or doors in order to~~

~~gain access to the pool area. All gates and doors exiting the pool area shall open into a public area or walkway accessible by all patrons of the pool.~~

~~**3118B.3 Retroactivity.** Sections 3118B.1 and 3118B.2 shall apply only to a public swimming pool constructed on or after July 1, 1994.~~

~~**3118B.4 Enclosure of pools constructed prior to July 1, 1994.** When the physical characteristics of a site preclude providing a 4-foot (1219 mm) deck around the perimeter of an existing pool, the enforcing agent may allow the installation of an enclosure which reduces the pool deck to less than 4 feet (1219 mm) in width.~~

~~Hose bibbs shall be provided so that all portions of the pool deck area may be reached with a hose attached to the hose bibb. A hose bibb shall be provided in the equipment area. Hose bibbs shall be located so that they do not constitute a hazard and shall be protected by a backflow prevention device as required by the California Department of Public Health under Sections 7601 to 7605, Article 2, Title 17, California Code of Regulations.~~

19) Amend Section 3119B as follows:

**SECTION 3119B**

**SIGNS POOL ENCLOSURE**

~~3119B.1 Occupant load sign. **Enclosure.** A sign with clearly legible letters not less than 4 inches (102mm) 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.~~

~~3119B.1.1 Spa pool. The occupant capacity of a spa pool shall be based on one bather for every 10 square feet (0.929 m<sup>2</sup>) of pool water surface area.~~

~~3119B.1.2 Other pools. The occupant capacity of all other pools shall be based on one bather for every 20 square feet (1.858 m<sup>2</sup>) of pool water surface area.~~

~~**Exception:** Occupant capacity requirements do not apply to wading pools.~~

The pool shall be enclosed by one or a combination of the following: a fence, portion of a building, wall or other approved durable enclosure. Doors, openable windows or gates of living quarters or associated private premises shall not be permitted as part of the pool enclosure. The enclosure, doors and gates shall meet all of the following specifications:

1. The enclosure shall have a minimum effective perpendicular height of 5 feet (1524 mm) as measured from the outside as depicted in Figure 31B-4.
2. Openings, holes or gaps in the enclosure, doors and/or gates shall not allow the passage of a 4-inch (102 mm) diameter sphere. The enclosure

shall be constructed over a hard and permanent material equivalent to concrete.

3. The enclosure shall be designed and constructed so that it cannot be readily climbed by small children. Horizontal and diagonal member designs which might serve as a ladder for small children are prohibited. Horizontal members shall be spaced at least 48 inches (1219 mm) apart. Planters or other structures shall not be permitted to encroach upon the clear span area as depicted in Figure 31B-5. Chain link may be used, provided that the openings are not greater than 1<sup>3</sup>/<sub>4</sub> inches (44 mm) measured horizontally.

**3119B.2 Signs for shallow pool. Gates.** ~~Signs with clearly legible letters not less than 4 inches (102 mm) high shall be posted in a conspicuous place and shall state: NO DIVING ALLOWED.~~ Gates and doors opening into the pool enclosure also shall meet the following specifications:

1. Gates and doors shall be equipped with self closing and self latching devices. The self latching device shall keep the gate or door securely closed. Gates and doors shall open outwardly away from the pool except where otherwise prohibited by law. Hand activated door or gate opening hardware shall be located at least 3<sup>1</sup>/<sub>2</sub> feet (1067 mm) above the deck or walkway.
2. Gates and doors shall be capable of being locked during times when the pool is closed. Exit doors which comply with Chapter 10, Title 24,

California Code of Regulations shall be considered as meeting these requirements.

**Exception:** Doors leading from areas of hotels and motels, as defined in Section 25503.16(b), Business and Professions Code, which are open to the general public, e.g., restaurants, lobbies, bars, meeting rooms and retail shops, need not be self latching.

3. The pool enclosure shall have at least one means of egress without a key for emergency purposes. Unless all gates or doors are so equipped, those gates and/or doors which will allow egress without a key shall have a sign in letters at least 4 inches (102 mm) high stating EMERGENCY EXIT.
4. The enclosure shall be constructed so that all persons will be required to pass through common pool enclosure gates or doors in order to gain access to the pool area. All gates and doors exiting the pool area shall open into a public area.

~~**3119B.3 Warning signs for pools using gas chlorine. Retroactivity.** Pools at which gas chlorine is used for disinfection shall have a conspicuously posted sign on the exterior side of the entry door to the chlorine room, or on the adjacent wall area. In addition to displaying the appropriate hazard identification symbol for gas chlorine, the sign shall state with clearly legible letters not less than 4 inches (102 mm) high the following: **DANGER: GASEOUS OXIDIZER - CHLORINE.** Sections 3119B.1 and 3119B.2 shall apply only to public pool enclosures constructed on or after July 1, 1994.~~

**3119B.4 ~~Warning signs for pools without pool lighting.~~ Enclosure of pools constructed prior to July 1, 1994.** ~~Where pool lighting fixtures which comply with section 3114B are not provided, a sign with clearly legible letters not less than 4 inches (102 mm) high shall be posted in a prominent place near each entrance to the pool area. This sign shall state: NO USE OF POOL ALLOWED AFTER DARK.~~ The enforcing agent may allow the installation of an enclosure which reduces the pool deck to less than 4 feet (1219 mm) in width when the physical characteristics of a site preclude providing a 4-foot (1219 mm) wide deck around the perimeter of an existing pool..

**3119B.5 ~~Warning sign for a spa pool.~~** ~~A precaution sign with clearly legible letters shall be posted in a prominent place near the entrance to a spa pool 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.~~

**3119B.6 ~~Approved signs.~~** ~~Approved signs shall be maintained in a legible manner.~~

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20) Amend Section 3120B as follows:

**SECTION 3120B**

**INDOOR POOL VENTILATION REQUIRED SIGNS**

~~—A pool located indoors shall be ventilated according to acceptable engineering principles.~~

~~**Note:** See Section 1202.2 for ventilation requirements for dressing and toilet rooms.~~

~~**3120B.1 General.** All signs shall have clearly legible letters or numbers affixed to a wall, pole, gate or similar permanent structure in a location visible to all pool users.~~

~~**3120B.2 Occupant load sign.** A sign with clearly legible letters not less than 4 inches (102 mm) 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.~~

~~**3120B.2.1. Spa pool.** The occupant capacity of a spa pool shall be based on one pool user for every 10 square feet (0.929 m<sup>2</sup>) of pool water surface area.~~

~~**3120B.2.2. Other pools.** The occupant capacity for all other pools shall be based on one pool user for every 20 square feet (1.858 m<sup>2</sup>) of pool water surface area.~~

~~**Exception:** Occupant capacity requirements do not apply to wading pools.~~

**3120B.3. Signs for shallow pool.** Signs with clearly legible letters not less than 4 inches (102 mm) high shall be posted in a conspicuous place and shall state NO DIVING ALLOWED.

**3120B.4 No diving sign.** A sign stating NO DIVING ALLOWED shall be posted at pools with a maximum water depth of 6 feet or less.

**3120B.5 No lifeguard sign.** Where no lifeguard service is provided, a warning sign shall be posted stating WARNING: NO LIFEGUARD ON DUTY. The sign also shall state, "Children under the age of 14 shall not use pool without a parent or adult guardian in attendance."

**3120B.6 CPR Sign.** An illustrated diagram of CPR procedures as recommended by the American Heart Association shall be posted. In addition, the emergency telephone number 911 or the number of the nearest emergency services shall be posted.

**3120B.7 Warning sign for a spa pool.** A warning sign for spa pools shall be posted stating CAUTION and shall include the following language:

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.

**3120B.8 Emergency shut-off.** A sign shall be posted at the spa emergency shut-off switch stating EMERGENCY SHUT-OFF SWITCH.

**3120B.9 No use after dark.** Where pools were constructed for which lighting was not required, a sign shall be posted stating NO USE OF POOL AFTER DARK.

**3120B.10 Keep closed.** A sign shall be posted on the exterior side of gates and doors leading into the pool enclosure area stating KEEP CLOSED.

**3120B.11 Diarrhea.** As described in Section 65541(c), Title 22, California Code of Regulations a sign in a language that is understood by pool users shall be posted at the entrance area of a public pool which states that persons having currently active diarrhea or who have had active diarrhea within the previous 10 days shall not be allowed to enter the pool water.

**3120B.12 Wave pools.** A sign shall be posted that describes the requirements for wave pools as described in Section 115952, Health and Safety Code.

**3120B.13 Exit.** Where automatic gaseous 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.

**3120B.14 Gaseous Oxidizer.** Where automatic gaseous 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).

**3120B.15 Turn on before entering.** Where automatic gaseous chemical feeders are used, a sign shall be posted at the switch to the light and ventilation system for the gaseous chemical feeder room stating **TURN ON BEFORE ENTERING.**

**3120B.16 Ozone.** On the exterior of an entry door to a room containing ozone generating equipment a sign shall be posted stating **DANGER: GASEOUS OXIDIZER - OZONE.**

**3120B.17 Direction of flow.** Where the recirculation equipment for more than one pool is located adjacent to another, the equipment shall be marked as to which pool the system serves. Where system manifolds are used, the direction of the flow shall be indicated with directional symbols such as arrows.

DRAFT

21) Amend Section 3121B as follows:

**SECTION 3121B**

**FOUNDATIONS FOR POOL EQUIPMENT INDOOR POOL VENTILATION**

Pool equipment shall be mounted on a portland cement concrete or other easily cleanable nonabsorbent floor material. Floors shall be sloped a minimum of 1/4 inch (6.4 mm) per foot to drains or other drainage disposal methods approved by the local enforcing agency. A pool located indoors shall be ventilated according to acceptable engineering principles.

**Note:** See Section 1203.1, Title 24, California Code of Regulations for ventilation requirements for dressing and toilet rooms.

DRAFT

22) Amend Section 3122B as follows:

**SECTION 3122B**

**GAS CHLORINATION EQUIPMENT ROOM POOL EQUIPMENT ENCLOSURE**

~~Compressed chlorine gas storage containers and associated chlorinating equipment, when installed indoors, shall be in a separate room of not less than 1-hour fire-resistive construction and shall comply with all of the following sections: For pools constructed on or after July 1, 2008, pool equipment shall be enclosed as follows:~~

~~**3122B.1 Location.** The room shall not be located in a basement or below ground. All equipment installed for recirculation, filtration and disinfection of pool water shall be installed so that access is limited to persons authorized by the pool owner or operator.~~

~~**3122B.2 Entry.** The entry door to the room shall open to the exterior of the building or structure and shall not open directly toward the pool or pool deck. Pool equipment shall be mounted on a continuous slab of concrete or other equivalent easily cleanable and nonabsorbent material. Floors shall be sloped a minimum of 1/4 inch (6.4 mm) per foot to a drain.~~

~~**3122B.3 Ventilation.** A mechanically operated exhaust ventilation system shall be provided sufficient to produce 60 air changes per hour. The exhaust ventilation shall be taken at a point at or near the floor level. The system shall be vented to the outside air, and at the point of discharge shall be at least 10 feet (3048 mm) from any openable windows, an adjacent building, and above the~~

~~adjoining grade level. Fresh air intakes directly communicating with the outdoors shall be located within 6 inches (152 mm) of the ceiling. Except for gas-fired pool water heaters, equipment located outside of a building shall be covered entirely by a solid roof with a minimum height of 7 feet 6 inches (2285 mm) and shall be enclosed by fencing that meets the requirements of Section 3119B.~~

DRAFT

23) Amend Section 3123B as follows:

**RECIRCULATION AND WATER TREATMENT SYSTEM COMPONENTS**

**SECTION 3123B**

**GENERAL REQUIREMENTS**

**3123B.1 System description.** Each pool shall be provided with a separate recirculation and water treatment system designed for the continuous recirculation, filtration and disinfection of the pool water. The system shall consist of pumps, filters, chemical feeders, skimmers or perimeter overflow systems, and all valves, pipes, connections, fittings and appurtenances.

**Exception:**  ~~Pools using fresh water equivalent in flow to the requirements of Sec. 3124B.~~

**Notes:**

- ~~1. Fresh makeup pool water shall conform to the physical and bacteriological standards of California Code of Regulations Title 22, Chapter 20, Section 65531.~~
- ~~2. Two spa pools shall be permitted to share one recirculation and treatment system, providing the flow and chlorination feed rate to each spa pool is individually metered and adjustable.~~

**3123B.2 Installation. Equipment.** ~~All recirculation and treatment system components shall be installed according to this code and in accordance with the equipment manufacturer's written instructions. All pumps, filters, disinfectant~~

chemical feeders, skimmers and supplemental treatment equipment shall meet the standards of NSF/ANSI 50-2010.

**3123B.3 Accessibility. Installation.** All filters, valves, pumps, strainers and equipment requiring adjustment shall be readily accessible for repair and replacement.

~~**Note:** Readily accessible means capable of being reached quickly for operation, renewal or inspections, without requiring those to whom ready access is requisite to climb over or remove obstacles or to resort to portable ladders, chairs, etc.~~

All equipment related to pool operations shall be installed and maintained according to this Chapter and in accordance with the equipment manufacturer's written instructions.

**3123B.4 Accessibility.** All filters, valves, pumps, strainers and equipment shall be readily accessible for repair and replacement.

**24) Amend Section 3124B as follows:**

**SECTION 3124B**

**TURNOVER TIME.**

The recirculation and purification system shall have sufficient the capacity to provide a complete turnover of pool water in:

1. One-half hour or less for a spa pool.
2. ~~One hour or less for a wading pool.~~ One-half hour or less for a spray ground.
3. ~~Two hours or less for a temporary training pool.~~ One hour or less for a wading pool.
4. ~~Six hours or less for all other types of public pools.~~ Two hours or less for a temporary training medical pool.
5. Six hours or less for all other types of public pools.

25) Amend Section 3125B as follows:

## SECTION 3125B

### RECIRCULATION PIPING SYSTEM AND COMPONENTS

**3125B.1 Line sizes.** ~~Piping systems, including all parts and fittings other than inlet devices or venturi throats,~~ Pipes shall be sized so that the flow velocity of piping systems including all parts and fittings other than inlet devices or venturi throats shall not exceed 40 feet per second (3.048 m/s) excepting that the flow velocity shall not exceed 8 feet per second (2.438 m/s) in any copper piping or in any pump suction piping. 6 feet per second (1.829 m/s) in any suction or copper piping and 8 feet per second (2.438 m/s) in any portion of the return system.

**3125B.2 ~~Gages~~ Gauges for filters.** ~~A gage~~ Pressure gauges for filters shall be provided on each filter influent and effluent line. Influent and effluent gauges shall be located at the same elevation. Each gage gauge shall have a scale range approximately 1¼ 1½ times the maximum anticipated working pressure and shall be accurate to within 2 percent of scale pounds per square inch. A vacuum gage gauge shall be provided for suction-type filters having the same operational range and accuracy as pressure gauges.

**3125B.3 Flow meter.** ~~The recirculation system shall be provided with a flow meter,~~ A flow meter shall be provided on each recirculation system, and all other water circulating systems, accurate to within 10 percent of actual flow.

**3125B.4 Hair and lint Sstrainers.** A hair-and-lint strainer shall be provided on the suction side of the recirculation pump if the pump takes suction prior to

filtration. A hair and lint strainer will not be required on pumps connected to vacuum filters where the filter elements are not removed for cleaning.

**Exception:** ~~A pump used with a vacuum filter where the filter elements are not removed for cleaning~~

**3125B.5 Backwash piping.** Piping, including necessary valves conforming to Section 3125B.1, shall be provided for each filter vessel or element which is of a ~~type requiring~~ requires periodic backwashing.

**3125B.6 Valves.** Valves ~~shall be accessible for operation and repair and shall not be located under~~ in any required deck area surrounding a pool. Valves, ~~or other approved means of control,~~ shall be installed on all recirculation, backwashing and drain system lines which require shutoff isolation, adjustment or control of the rate of flow. Each valve shall be identified with appropriate ~~markings affixed directly to or near the valve~~ labeled as to its purpose.

26) Amend Section 3126B as follows:

**SECTION 3126B**

**RECIRCULATION PUMP CAPACITY.**

**3126B.1** Pool recirculation Pumps shall have design capacity at the following heads total dynamic head capacities:

1. **Pressure diatomaceous earth filters.** At least 60 feet (18,288 mm).
2. **Vacuum diatomaceous earth filters.** Twenty inches (508 mm) vacuum on the suction side and 40 feet (12,192 mm) total dynamic head.
3. **Rapid sand filters** - At least 45 feet (13,716 mm).
4. **High rate sand filters** - At least 60 feet (18,288 mm).
5. **Cartridge filters** - At least 60 feet (18,288 mm).

**3126B.2** Pumps with other hydraulic (flow head) characteristics total dynamic head capacities shall be permitted which comply with the flow capacity in Section 3124B provided the turnover times are attained as required in Section 3124B.

**27) Amend Section 3127B as follows:**

**SECTION 3127B**  
**WATER SUPPLY INLETS**

**3127B.1 General.** ~~Each~~ The pool shall be supplied with potable water by means of a permanently installed pipeline from a public water supply system holding a permit from the California Department of Public Health or ~~from another approved source~~ the enforcing agent.

**Exception:** ~~The enforcing agency may exempt spa pools, temporary pools and pools less than 1,500 gallons (5876 L) capacity from having to use permanently installed fill lines.~~

**3127B.2 Backflow prevention.** ~~There shall not be a~~ be no direct connection between any domestic potable water supply system and the pool or its piping system unless protected ~~against backflow in an approved manner~~ by a backflow prevention device as required by the California Department of Public Health under Sections 7601 to 7605, Article 2, Title 17, California Code of Regulations.

**3127B.3 Air-gap separation for ~~pool~~ over-the-rim fill inlets.** Water supply inlets to a pool shall be installed and maintained to have not less than 1 inch (25 mm) or less than two pipe diameters, whichever is greater, above the overflow rim of the pool. ~~Over-the-rim spouts shall be installed under a diving board or shall be properly guarded to prevent tripping~~ located so as not to create a tripping hazard.

~~**Exception:** Vacuum breakers, or other backflow prevention devices, may be used instead of air-gap separation. Such devices shall be installed on the discharge side of the last inlet valve with the critical level not less than 6 inches (152 mm) above the overflow rim of the swimming pool.~~

**3127B.4 Below-rim fill inlet.** A below-rim fill inlet system shall have a backflow prevention device as required by the California Department of Public Health under Sections 7601 to 7605, Article 2, Title 17, California Code of Regulations installed on the discharge side of the last inlet valve controlling makeup water to the pool. The backflow device shall be installed in compliance with local plumbing codes.

**28) Amend Section 3128B as follows:**

**SECTION 3128B  
FILTERS (ALL TYPES)**

~~**3128B.1 General requirements.** Installation All filters, regardless of type, shall be designed and constructed to withstand normal continuous use without deterioration which could affect filter operation. Each filter shall comply with all of the following provisions:~~

- ~~1. Maintain clean and clear pool water under anticipated operating conditions.~~
- ~~2. Structural or functional failures shall not permit the passage of unfiltered water.~~
- ~~3. Filtration surfaces shall be easily disassembled and inspected.~~
- ~~4. Filtration surfaces shall be easily restored to the design capacity.~~

~~5. Filter parts shall be capable of resisting electrolytic corrosion (galvanic electric currents) due to the use of dissimilar metals.~~

Each filter vessel shall be installed, piped and provided with valves so that it can be isolated from the recirculation system for repairs and backwashing.

~~**3128B.2 Minimum pressure drop. Air release.** The maximum pressure drop of a pressure type filter, measured from the filter housing inlet to the filter housing discharge, shall not exceed 3 pounds per square inch gage (psig) (20.68 kPa gage) when initially operating at design flow rate. When the filter permits accumulation of air in the top of the housing or vessel, the filter vessel shall be equipped with an air release valve installed at the top of the housing that will allow for the release of trapped air.~~

~~**3128B.3 Installation. Underdrain system.** Each filter vessel and element shall be installed, piped and provided with necessary valves so that it can be isolated from the system for repairs and backwashed individually. The underdrain system for sand filters shall provide uniform distribution and collection of the flow during filtering and backwashing. The system shall be constructed of a nonclogging material.~~

~~**3128B.4 Air release.** When the design of the filter permits accumulation of air in the top of the housing or vessel, the filter vessel shall be equipped with an air-release valve connected at the top of the housing that will expel air which enters the filter vessel or tank.~~

~~**3138B.5 Underdrain system.** The underdrain system for sand filters shall provide uniform distribution and collection of the flow during filtering and~~

~~backwashing. The underdrain system shall be constructed of corrosion resistant material and shall be non-clogging.~~

~~**3128B.6 Freeboard.** For sand filters, not less than 10 inches (254 mm) of freeboard shall be provided between the upper surface of the filter sand and the lowest portion of the pipes or drains which serve as overflows during backwashing.~~

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**29) Amend Section 3129B as follows:**

**SECTION 3129B**

**RAPID SAND PRESSURE FILTERS**

In addition to the requirements for all filters as indicated in Section 3128B, the following apply to rapid sand pressure filters:

**3129B.1 Flow rates.** The filtration rate shall not exceed ~~3 gallons per minute~~ 3 gpm per square foot (122.24 L/m per m<sup>2</sup>) of filter area. The design backwash rate shall not be less than ~~42~~ 15 ~~gpm per square foot (488.96~~ 611.2 ~~L/m per m<sup>2</sup>)~~ of filter area.

**3129B.2 Filter media.** The filter shall contain not less than a 20-inches (508 mm) of depth of sand and not less than a 10-inches (254 mm) depth of filter gravel above the underdrain system.

**3129B.2.1** The filter sand shall have an effective particle size of ~~0.3 to 0.5 mm~~ between 0.40 and 0.55 millimeters (#30 mesh) and a uniformity coefficient of ~~not more than~~ not exceeding 1.75.

**3129B.2.2** The filter gravel shall be ~~graded~~ sized and placed to provide uniform flow distribution from the underdrain system and to support the bed of filter sand without loss of sand to the pool or without development of jet streams or channeling in the filtration media.

~~**3129B.3 Coagulant addition.** Facilities with dosage control features shall be provided for adding coagulating chemicals ahead of the filter when required by the enforcing agency.~~

30) Amend Section 3130B as follows:

## SECTION 3130B

### DIATOMACEOUS EARTH FILTERS

In addition to the requirements for all filters as indicated in Section 3128B, the following apply to diatomaceous earth filters:

**3130B.1 Flow rates.** The filtration rate for both pressure and vacuum-type diatomaceous earth filters shall not exceed 2 gpm per square foot (81.49 L/m per m<sup>2</sup>) ~~excepting that filters designed for continuous feeding of filter aid shall not exceed 2½ gpm per square foot (101.87 L/m per m<sup>2</sup>)~~ of filter area.

~~—~~ **Note:** See also Section 3128B for other requirements.

**3130B.2 Precoating.** ~~Provisions shall be made for precoating with diatomaceous earth filter aid. Continuous feeding of filter aid shall be required in a pool with a water surface area 2000 square feet (186 m<sup>2</sup>) or more, and the continuous feeding equipment shall be capable of feeding not less than 0.1 pound (0.045 kg) per 24 hours per square foot (0.093 per m<sup>2</sup>) of filter area.~~

31) Amend Section 3131B as follows:

**SECTION 3131B**  
**HIGH-RATE SAND FILTERS**

In addition to the requirements for all filters as indicated in Section 3128B, the following apply to high rate sand filters:

**3131B.1 Permissible use.** ~~Sand filters operating at filtration rates higher than the maximum rate specified in Section 3129B shall be permitted by the enforcing agency under the conditions as set forth in Section 3105B. The filter sand shall have an effective particle size between 0.40 and 0.55 mm (#30 mesh) and a uniformity coefficient not exceeding 1.75.~~

**3131B.2 Design and operating requirements.** ~~A sand filter permitted under Sections 3105B.1, 3105B.2 and 3105B.3 shall comply with the following requirements instead of the requirements contained in Section 3129B.~~

- ~~1. The filter shall contain not less than 12 inches (305 mm) of depth of filter sand.~~
- ~~2. The filter sand shall not have an effective particle size greater than 0.45 mm and a uniformity coefficient not greater than 1.50.~~
- ~~3. The design backwash rate shall not be less than 15 gpm per square foot (611.21 L/m per m<sup>2</sup>) of filter area.~~
- ~~4. The filter bed shall not show any signs of migration or vary more than 1 inch (25 mm) on the surface after 15 minutes of backwashing followed, by 15 minutes of filtration.~~

**Note:** See Section 3128B for other requirements.

The design filtration rate for a high rate sand filter shall meet the standards of NSF/ANSI 50-2010.

**3131B.3** The backwash rate for a high rate sand filter shall be a minimum of 15 gpm per square foot of filter area.

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32) Amend Section 3132B as follows:

**SECTION 3132B**

**CHEMICAL FEEDERS CARTRIDGE FILTERS.**

In addition to the requirements for all filters as indicated in Section 3128B, the following apply to cartridge filters:

All chemical feeders, including disinfection feeders, and the auxiliary components shall comply with all of the provisions of this section.

**Note:** Chemical feeders include those used for solutions, slurries or solids and also include auxiliary parts such as pumps, strainers, tubing connections, tanks, injection fittings and other required components.

**3132B.1 General design requirements.** Chemical feeder equipment shall comply with all of the following:

1. Equipment shall be capable of being easily disassembled for cleaning and repair.
2. Equipment shall be constructed of corrosion-resistant materials.
3. Equipment shall be constructed to permit repeated adjustments without loss of output rate accuracy if equipped with an adjustable output rate device.
4. Equipment shall be constructed to minimize a stoppage from chemicals intended to be used therein or from foreign materials that may be contained in said chemicals.

The filtration rate shall not exceed 0.375 gpm per square foot of filter area.

**3132B.2 Piping.** Piping used for the chemical feeder and its auxiliary equipment shall be resistant to the chemical and erosion action of the chemicals

~~intended to be used therein and shall be installed to permit cleaning or otherwise to prevent clogging of the parts with chemicals. An approved wash down area shall be provided in the pool equipment area with permanently installed drainage piping discharging to the public sewer or wastewater discharge system approved by the local waste discharge agency using an air gap separation for the purposes of draining the entire contents of the filter vessel.~~

**3133B.3 Installation.** ~~The feeder and its auxiliary equipment shall be constructed and installed to prevent uncontrolled discharge or siphonage of chemicals and fumes directly into the pool, its recirculating system or the pool area. An additional set of filter elements shall be available for installation while the existing filter elements are cleaned and dried.~~

33) Amend Section 3133B as follows:

**SECTION 3133B**

**DISINFECTANT FEEDERS CHEMICAL FEEDERS**

~~Disinfectant feeders shall comply with the provisions contained in this section in addition to the provisions contained in Section 3132B. All chemical feeders including disinfection feeders and the auxiliary feeders used for solutions, slurries or solids along with components such as pumps, strainers, tubing connections, tanks and injection fittings shall comply with the provisions of this section.~~

**3133B.1 ~~Minimum capacity.~~ General design requirements.** ~~The disinfectant feeder shall be capable of supplying not less than the equivalent of 3 pounds (1kg) of chlorine per day (PPD) per 10,000 gallons (37,850 L) of pool water capacity.~~

**Exception:** ~~A feeder of lesser capacity shall be permitted when it can be demonstrated to the enforcing agency that the lesser capacity feeder can comply with the disinfection requirements of Section 65529, Title 22, Chapter 20, California Code of Regulations.~~

Chemical feeder equipment shall:

1. Be capable of being easily disassembled for cleaning and repair.
2. Be with an adjustable output rate device to permit repeated adjustments without loss of output rate accuracy.
3. Meet the applicable criteria in NSF/ANSI 50-2010.

**3133B.2 ~~Rate of Flow Adjustment.~~ Piping.** ~~Each feeder shall have a graduated and clearly marked rate of flow adjustment feature capable of~~

providing disinfectant flows from 25 percent to 100 percent of rated capacity. The graduated markings shall be accurate within 10 percent of the flow rate at any setting. Piping used for the chemical feeder and its auxiliary equipment shall be resistant corrosion or chemical deterioration.

**3133B.3 Compressed chlorine gas disinfectant equipment. Installation.**

Compressed chlorine gas disinfectant equipment shall comply with the provisions contained in this section in addition to the provisions contained in Sections 3133B.1 and 3133B.2.

**Note:** See Section 3122B for special construction requirements of a room containing compressed chlorine gas disinfectant equipment.

**3133.3.1 Chlorine containers.** Each chlorine gas container or cylinder shall be firmly secured to prevent accidental movement. A precaution cap shall be provided in place at all times when the cylinder is not connected to the chlorinator.

**3133.3.2 Container scale.** A means of weighing chlorine containers shall be provided in the gas chlorinator room.

**3133B.3.3 Chlorine feeding device.** In addition to the requirements contained in Section 3133B.1, the chlorine feeding device shall be capable of delivering chlorine in aqueous solution at maximum design rate. The device shall not allow the backflow of water into the chlorine solution container. The device shall not allow the release of chlorine gas to the atmosphere under normal operating conditions. The devices shall be designed and installed to

~~conduct chlorine gas leaks to the outdoors during an accident or an interruption of the water supply.~~

~~**3133B.3.4 Piping.** Piping carrying chlorine gas under pressure shall not be located outside the chlorination equipment room.~~

Chemical feeders and associated components shall be constructed and installed to prevent uncontrolled discharge or siphonage of chemicals and fumes directly into the pool, its recirculation system or the pool area.

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34) Amend Section 3134B as follows:

**SECTION 3134B**

**POOL FITTINGS DISINFECTANT FEEDERS**

~~—The pool shall be equipped with one or more skimming methods which, when combined, shall be capable of continually withdrawing not less than 75 percent of the required circulation capacity, to provide continuous skimming of the water surface and to provide an overflow drainage system.~~

~~Disinfectant feeders shall comply with applicable requirements established by NSF/ANSI 50-2010 for disinfectant feeders. In addition to the requirements for chemical feeders as indicated in Section 3133B, the following apply to disinfectant feeders:~~

~~**3134B.1 Surface skimmers. Minimum Capacity.** Each surface skimmer shall comply with all of the following provisions:~~

- ~~1. The skimmer shall be of the built-in type, recessed into the pool wall.~~
- ~~2. Each skimmer shall be individually adjustable for the rate of flow with either an external or internal device.~~
- ~~3. The skimmer weir shall automatically adjust to variations in the pool water level over a range of not less than 4 inches (102 mm).~~
- ~~4. The skimmer shall be provided with an air-lock protective device which shall not permit leakage of air into the recirculation suction piping system. This device shall not leak more than 3 gpm (11.356 L/m) of water during normal operations.~~

- ~~5. Each skimmer shall be provided with a removable and cleanable screen or basket to trap large solids.~~
- ~~6. There shall not be less than one skimmer for each 500 square feet (46.45 m<sup>2</sup>) of pool water surface area, or fractional part thereof.~~
- ~~7. The skimmer shall be constructed with suitable materials and methods to withstand anticipated use conditions.~~
- ~~8. Each skimmer shall be located in relation to pool inlets to aid recirculation and skimming.~~

~~**Exception:** Skimmers shall not be used as the required overflow devices on a pool with a water surface area over 5,000 square feet (464.52 m<sup>2</sup>).~~

~~All feeders shall be capable of supplying not less than the equivalent of 3 pounds (1.4 kg) of 100% available chlorine per day per 10,000 gallons (37,850 L) of pool water capacity.~~

~~**3134B.2 Perimeter overflow systems. Rate of flow adjustment.** A perimeter overflow system shall comply with all of the following provisions:~~

- ~~1. **Location.** The overflow system shall be built into the walls and extend completely around the pool except where steps require interruption.~~
- ~~2. **Channel detail.** The overflow channel shall not be less than 3 inches (76 mm) deep, the section shall not diverge with depth and the width of the bottom shall not be less than 3 inches (76 mm). The opening beneath the coping into the overflow system shall be a minimum of 4 inches (102 mm) beneath of the coping in any direction measured radially from the inner edge of the overflow channel lip.~~

- ~~3. **Channel lip.** The overflow channel lip shall not be more than 12 inches (305 mm) below the level of the deck. The lip edge shall be rounded and shall not be thicker than 2½ inches (64 mm) or thinner than 1 inch (25 mm) from for the top 2 inches (51 mm).~~
- ~~4. **Channel covering.** Covered overflow channels shall be permitted, providing bathers cannot enter it or get their arms or legs caught in the cover.~~
- ~~5. **Channel outlets.** Overflow channel outlets shall not be less than 2½ inches (64 mm) in diameter spaced not more than 15 feet (4572 mm) apart and the channel bottom slope to the drain shall be not less than ¼ inch (6.4 mm) per foot.  
  
**Exception:** Other drain spacing or channel bottom slope shall be permitted if hydraulically designed in accordance with acceptable engineering principles.~~
- ~~6. **Channel outlet covers.** Overflow channel outlets shall be provided with a clear opening area in the grating not less than 1.5 times the cross sectional area of the outlet required in Section 3134B.~~
- ~~7. **Overflow drain piping.** Overflow drain piping shall provide drainage of the overflow system, shall carry overflow water to a surge storage chamber and shall establish hydraulic equilibrium in the pool and return to skimming within 10 minutes after being flooded by a sudden large use of the pool by bathers.~~

~~8. **Surge storage capacity.** A perimeter overflow system shall be provided with a minimum surge storage of not less than 1 gallon per square foot (40.75 L/m<sup>2</sup>) of pool water surface area. Surge storage shall be permitted in the perimeter overflow channel, the overflow water drain piping returning to the surge chamber and in the surge chamber.~~

~~9. **Surge flow control.** Automatic makeup (fresh) water flow controls with a manual override provision shall be provided to maintain the proper operating pool water level~~

~~Each feeder shall have a control device capable of providing disinfectant flows from 25 percent to 100 percent of rated capacity and shall be accurate to within 10 percent of the flow rate at any setting. A visible means of determining the rate of flow through the device shall be provided for each disinfectant feeder.~~

~~**3134B.3 Outlets. Compressed chlorine gas disinfectant equipment.** Each pool shall be provided with a bottom drain and outlets through which circulation shall take place and by which the pool can be emptied. The bottom drain and recirculation outlets shall be covered with grates or other protective devices which shall be removable only with tools. Slots or openings in grates or covers shall not exceed ½ inch (12.7 mm) in the smaller dimension and shall be of such area, shape and arrangement to prevent physical entrapment or a suction hazard to bathers.~~

~~**Exception:** Recirculation outlets for a spa pool shall be either a safety type which cannot be completely covered by any part of the body, or shall be installed in duplicate so as to prevent a suction hazard to bathers.~~

Chlorine gas shall not be dispensed directly into the water of a pool except as an aqueous solution through the return line of the recirculation system.

**3134B.3.1 Compressed gas containers.** Each container or cylinder shall be secured to prevent accidental movement. A valve protection cap shall be provided to cover the discharge valve at all times when the cylinder is not connected to the dispensing system.

**3134B.3.2 Container scale.** Compressed gas chlorine containers in use shall be on a scale in the gas chlorinator room.

**3134B.3.3 Chlorine feeding device.** The chlorine feeding device shall not allow the backflow of pool water into the chlorine container. The device shall not allow the release of chlorine gas to the atmosphere under normal operating conditions. The devices shall be designed and installed to conduct chlorine gas leaks to the outdoors during a release of chlorine gas or an interruption of the water supply.

**3134B.3.4 Piping.** Piping carrying chlorine gas under pressure shall not be located outside the gas chlorination equipment room.

~~**3134B.4 Hydrostatic devices.** In areas of anticipated high groundwater table, an approved hydrostatic relief device shall be installed.~~

~~**3134B.5 Inlet Fittings.** Each pool shall be provided with not less than two recirculation inlets for the first 10,000-gallon (37,850 L) capacity and one additional inlet for each additional 10,000-gallon (37,850 L) capacity, or fractional part thereof.~~

**Exception:** A spa pool shall be provided with not less than one inlet.

~~**3134B.5.1 Construction.** Inlet fittings shall not protrude greater than 1¼ inches (32 mm) into the pool and shall be shaped, rounded and smooth.~~

~~**3134B.5.2** Inlet fittings shall be located greater than 18 inches (457 mm) below the waterline, except for the spa pool or wading pool. One floor inlet shall be provided for each 10,000 gallons (37,850 L) of pool capacity for a pool which exceeds 40 feet (12,192 mm) in width. Inlet fittings shall be separated by at least 10 feet (3048 mm) and shall be located to ensure uniform circulation.~~

~~**3134B.5.3 Adjustment.** Provisions shall be made for adjusting the volume of flow through each inlet. Wall inlets shall be capable of adjusting the direction of flow and to produce sufficient velocity to impart a substantial circulatory movement to the pool water.~~

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35) Amend Section 3135B as follows:

**SECTION 3135B**

**SPA POOL SPECIAL REQUIREMENTS**

**GAS CHLORINATION EQUIPMENT ROOM**

Compressed chlorine gas storage containers and auxiliary components shall be installed indoors in a separate room of not less than 1-hour fire resistant construction and shall comply with all of the following:

**3135B.1 Aeration system. Location.** ~~A spa pool aeration and/or jet system shall be completely separate from its filtration system and shall not be interconnected with any non-spa pool.~~ The gas chlorination equipment room shall not be located in any habitable building and shall not be located above the first floor or below ground level.

**3135B.2 Maximum operating temperature. Exit.** ~~The maximum allowable water temperature shall be 104°F (57.8°C) for a spa pool.~~ Required exit doors shall swing in the direction of exit of travel and shall not open directly toward the pool or pool deck.

**3135B.3 Ventilation.** Mechanical exhaust ventilation systems shall be in compliance with the California Mechanical Code and the California Fire Code.

**3135B.4 Alarm.** An audible and visible chlorine detection alarm system shall be located in the room containing the gas chlorine equipment. The sensor shall be located within 6 inches (152 mm) of the floor level. The system shall continually monitor the room and shall activate when chlorine concentrations in the room

exceed a Permissible Exposure Limit of 0.5 ppm. Activation of the alarm shall shut off the chlorine at the source and turn on the lights and ventilation system.

The alarm system shall consist of the following:

1. An audible alarm capable of producing a sound level of at least 90 decibels.
2. A visible alarm consisting of a strobe light which is mounted directly over the entrance of the chlorine equipment room. The light shall be visible during daylight hours.

**3135B.5 Illumination.** Artificial illumination of at least 50 foot candles as measured 30 inches (750 mm) from the floor shall be provided in the room.

**3135B.6 Switches.** Switches for the control of artificial lighting and ventilation shall be located outside the room, adjacent to the entry door.

**3135B.7 Storage.** The gas chlorine room shall not be used for the storage of items not related to the use of the gas chlorine equipment.

**36) Amend Section 3136B as follows:**

**SECTION 3136B**

**CLEANING SYSTEMS**

**POOL SKIMMERS**

~~A built-in or portable type vacuum cleaning system shall be provided which is capable of removing sediment from all parts of the pool floor. When jet type units are used, they shall be provided with approved type backflow protection for the water system. The pool shall be equipped with one or more skimming methods to provide continuous skimming of the pool water and shall be capable of continually withdrawing not less than 75 percent of the required flow rate.~~

**3136B.1 Surface skimmers.** Each surface skimmer shall comply with the following provisions:

1. The skimmer shall be recessed into the pool wall.
2. The skimmer shall be individually adjustable for the rate of flow with either an external or internal device. All skimmers not interconnected with the main drain shall be equipped with an equalizer valve.
3. A skimmer equalizer opening in the pool sidewall shall be covered with a tamper-proof antientrapment safety cover that meets the ASME/ANSI A112.19.8 performance standard.
4. The skimmer weir shall automatically adjust to variations in the pool water level over a range of not less than 4 inches (102 mm).
5. The skimmer shall be provided with an air lock protective device.

6. Each skimmer shall be provided with a removable and cleanable screen or basket to trap objects. The screen or basket shall be accessible through an opening in the deck above the skimmer.
7. There shall be a minimum of one skimmer for every 500 square feet of pool water surface area, or fractional part thereof.
8. Each skimmer shall be located in relation to pool inlets to aid recirculation and surface skimming.

**3136B.2 Perimeter overflow systems.** A perimeter overflow system shall be required in pools whose water surface area equals or exceeds 3,000 square feet (278.7 m<sup>2</sup>). Perimeter overflow systems shall comply with the following provisions:

1. **Location.** The overflow system shall be built into the perimeter of the pool walls and extend completely around the pool parallel to the pool deck.
2. **Channel detail.** The overflow channel shall be not less than 3 inches (76 mm) deep, the section shall not diverge with depth of the channel, and the width of the bottom shall be not less than 3 inches (76 mm). The opening beneath the coping into the overflow system shall be a minimum of 4 inches (102 mm) beneath the coping in any direction measured radially from the inner edge of the overflow channel lip.
3. **Channel lip.** The overflow channel lip shall be not more than 12 inches (305 mm) below the level of the deck. The lip edge shall be rounded and shall be not thicker than 2½ inches (64 mm) or thinner than 1 inch (25 mm) for the top 2 inches (51 mm).

4. **Channel covering.** Covered overflow channels shall be permitted provided the openings do not exceed ½ inch in the smaller dimension.
5. **Channel outlets.** Overflow channel outlets shall be not less than 2½ inches (64 mm) in diameter spaced not more than 15 feet (4572 mm) apart, and the channel bottom slope to the channel drain shall be not less than ¼ inch (6.4 mm) per foot.  

**Exception:** Alternate channel outlet spacing and channel bottom slope shall be permitted if hydraulically designed by a California mechanical engineer licensed under Sections 6700 to 6799, Business and Professions Code.
6. **Channel outlet covers.** Overflow channel outlets shall be provided with a clear opening area in the grating not less than 1.5 times the cross-sectional area of the outlet. Openings of the channel outlet covers shall not exceed ½ inch (13 mm) in the smaller dimension.
7. **Channel drain piping.** Channel drain piping shall provide drainage of the overflow system, carry overflow water to a surge storage chamber, establish hydraulic equilibrium in the pool and return to skimming within 10 minutes after being flooded by a sudden displacement of the pool water by pool users.
8. **Surge storage capacity.** A perimeter overflow system shall be provided with a minimum surge storage capacity of not less than 1 gallon per square foot (40.75 L/m<sup>2</sup>) of pool water surface area. Surge storage shall be permitted in the perimeter overflow channel and in the overflow water drain piping returning to the surge chamber provided the system is evaluated and certified

by a California mechanical engineer licensed under Sections 6700 to 6799, Business and Professions Code. The surge chamber shall be sized to contain all surge water.

- 9. Water level control.** Automatic makeup water flow controls with a manual override control shall be provided to maintain the proper pool water level. The water level shall be the midpoint of the operating range of the skimmers. For overflow systems the water level shall be the top edge of the overflow rim.

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37) Amend Section 3137B as follows:

**SECTION 3137B**

**WASTE WATER DISPOSAL POOL FITTINGS**

**3137B.1 General requirements. Outlets.** Material cleaned from filters, waste water from temporary training pool showers and backwash water from any pool system shall be disposed of in a manner which will not create a (public) nuisance.

**~~3137B.1.1 Sand filters.~~** In accordance with applicable local regulations, the backwash water from a sand filter shall be disposed of to a storm drain or sewer system, dry well, or, when approved, such water may be disposed of by surface or subsurface irrigation.

**~~3137B.1.2 Diatomaceous earth filters.~~** The backwash waste water from a diatomaceous earth filter shall discharge into a receiving chamber installed to collect the waste diatomaceous earth mixture, or, when approved, such waste shall be permitted to be disposed of by other means such as to a sanitary sewer.

**~~3137B.1.3 Piping.~~** Sumps and drain piping shall have sufficient capacity to receive pool system backwash without overflow of the sump receiver.

**~~3137B.1.4 Visual indicator.~~** A sight glass shall be installed on the waste water discharge line from a filter.

**Exception:** ~~The sight glass shall not be required when an air gap connection from the filter vessel to a sewer or other drainage system is clearly visible to the operator during actual backwash operation.~~

Each pool shall be provided with main drain outlets located in the deepest part of the pool through which circulation shall take place and by which the pool can be emptied. Suction outlets shall comply with all of the following provisions:

1. Each pump on a pool circulation system shall be connected to at least two suction grate assemblies or a drain cover that meets the ASME/ANSI A112.19.8 performance standard located at least 3 feet (915 mm) apart in any dimension between the drains.
2. Suction grates shall be secured with fasteners which can only be removed with tools. The openings of all grate covers shall not exceed ½ inch (12.7 mm) in the smaller dimension and shall be of such area, shape and arrangement as to prevent physical entrapment.
3. The velocity in the pump suction hydraulic system shall not exceed 6 feet per second (1.8 mps) when 100 percent of the pump flow comes from the drain assembly and any drain suction fitting in the hydraulic system is completely blocked.
4. All suction plumbing shall be connected at a point on the pipe an equal distance between the two drains known as a "T" connection. Both branches of the "T" shall have the same size piping as the main suction plumbing.

5. The water velocity across any suction grate shall not exceed 1.5 feet per second (0.45 mps).

6. **Hydrostatic Relief Devices.** In areas with a high ground water table, or as required by local plumbing codes, a hydrostatic relief device shall be installed in the main drain.

**3137B.2 Prohibited Connection. Inlet Fittings.** ~~No direct connection of the pool or its recirculation system shall be permitted with a sanitary sewer, storm drain or drainage system. When permitted by local regulations, discharge to a sanitary sewer shall be through an air gap type separation.~~

**3137B.2.1 General.** Each pool shall be provided with not less than two recirculation system inlets for the first 10,000 gallon (37,850 L) capacity and one additional inlet for each additional 10,000 gallon (37,850 L) capacity, or fractional part thereof.

**Exception:** A spa pool shall be provided with not less than one inlet.

**3137B.2.2 Construction.** Inlet fittings shall not protrude greater than 1¼ inches (32 mm) into the pool and shall be shaped, rounded and smooth.

**3137B.2.3 Location.** Inlet fittings shall be located greater than 18 inches (457 mm) below the waterline, except for a spa pool or wading pool. One floor inlet shall be provided for each 10,000 gallons (37,850 L) of pool capacity for a pool which exceeds 40 feet (12,192 mm) in width. Inlet fittings shall be separated by at least 10 feet (3048 mm) and shall be located so as to ensure uniform circulation.

**3137B.2.4 Adjustment.** Provisions shall be made for adjusting the volume of flow through each inlet. Wall inlets shall be capable of adjusting the direction of flow and to produce sufficient velocity to impart a substantial circulatory movement to the pool water.

**3137B.2.5 Floor Inlets.** Pools greater than 40 feet (12,192 mm) in width or more than 3,000 square feet (278.7 mm<sup>2</sup>) in surface area shall have floor-mounted return inlets. The number of floor inlets shall be in compliance with subsection 3137B.2.1. All floor inlet fittings shall be located to provide uniform circulation and shall be installed so as to be flush with the surface of the pool bottom.

DRAFT

38) Amend Section 3138B as follows:

**SECTION 3138B**

**Reserved SPA POOL SPECIAL REQUIREMENTS**

**3138B.1 Aeration system.** A spa pool aeration and/or jet system shall be completely separate from the recirculation system and shall not be interconnected with any other pool.

**3138B.2 Maximum operating temperature.** The allowable water temperature of a spa pool shall not exceed 104° F (57.8° C).

**3138B.3 Surface area.** The water surface area of a spa pool shall not exceed 250 square feet (23.23 m<sup>2</sup>).

**3138B.4 Maximum depth.** The water depth in a spa pool shall not exceed 4 feet (1220 mm).

39) Add Section 3139B as follows:

**SECTION 3139B**

**Reserved—SOLAR HEATING INSTALLATIONS**

**3139B.1** Solar heating systems shall not be interconnected with the pool recirculation system and shall comply with the following:

1. Solar heating systems shall remove water from the pool from at least 2 suction outlets located on the sidewall of the pool.
2. Solar heating system suction outlets and return inlets shall be located no closer than 5 feet (1525 mm) to any pool water recirculation system fitting.

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**40) Add Section 3140B as follows:**

**Section 3140B**

**Reserved CLEANING SYSTEMS**

A vacuum cleaning system shall be provided which is capable of removing sediment from all parts of the pool floor. A cleaning system using potable water shall be provided with an approved backflow protection device. No cleaning system shall remain in the pool when the pool is open or available for use by pool users. Built-in vacuum suction line fittings shall not be located on the pool wall.

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41) Add Section 3141B as follows:

**SECTION 3141B**

**Reserved WASTEWATER DISPOSAL.**

**3141B.1 General requirements.** Material cleaned from filters and backwash water from any recirculation system shall be disposed in a manner that is acceptable to the local sanitation agency and will not create a nuisance. Backwash water shall not be returned to a pool.

**3141B.2 Diatomaceous earth filters.** The backwash from a diatomaceous earth filter shall discharge into a separation tank, acceptable to the local sanitation agency, that has been installed to collect the waste diatomaceous earth mixture. The wastewater shall be disposed by discharge into a sanitary sewer system acceptable to the local sanitation agency.

**3141B.3 Piping.** Sumps and drain piping shall have sufficient capacity to receive recirculation system backwash without overflow of the sump receiver. The sump shall not permit sewage to enter the surge chamber or the pool in the event of a sewage backup

**3141B.4 Visual indicator.** Where direct observation of the backwash discharge is not visible to the operator during backwash operations, a sight glass shall be installed on the wastewater discharge line.

**3141B.5 Prohibited connection.** There shall be no direct connection between the pool, its recirculation system or overflow drain to any sanitary sewer, storm drain or drainage system.

**SECTION 3142B**

Reserved

**SECTION 3143B**

Reserved

**SECTION 3144B**

Reserved

**SECTION 3145B**

Reserved

**SECTION 3146B**

Reserved

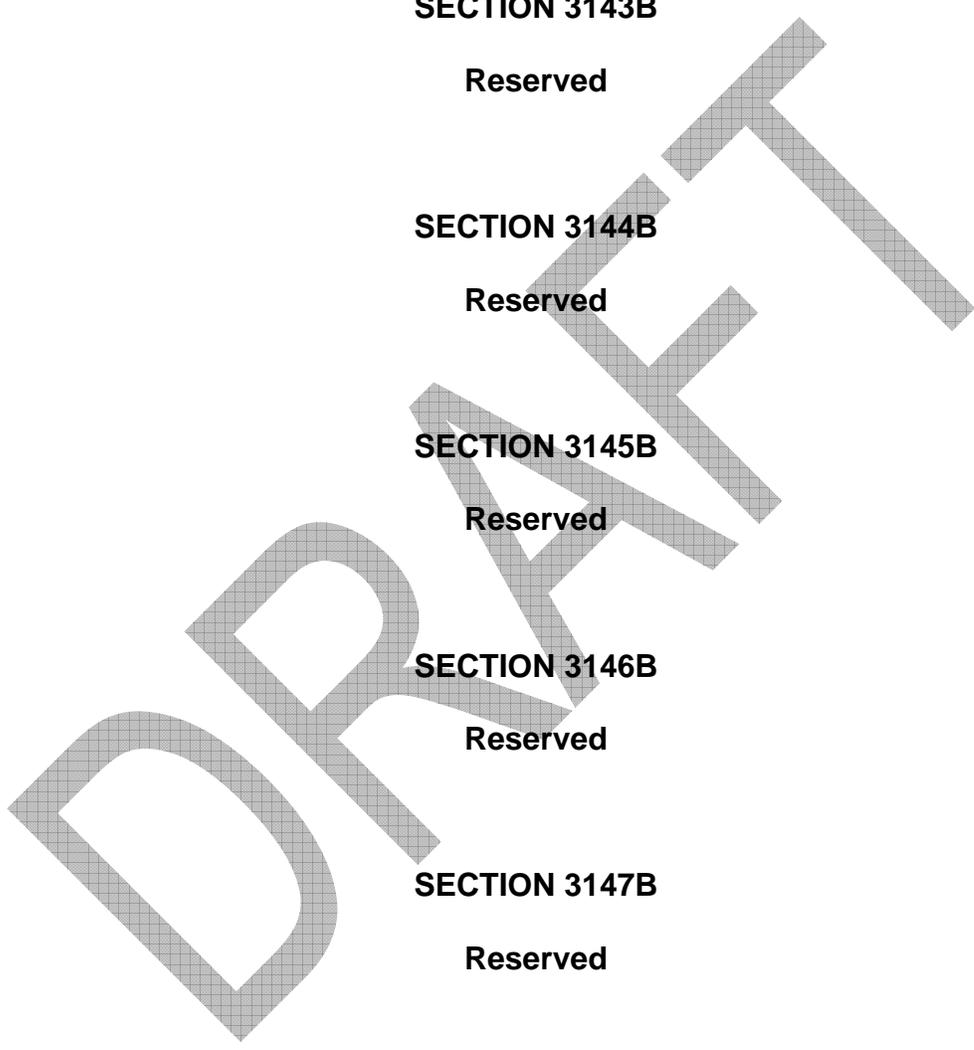
**SECTION 3147B**

Reserved

**SECTION 3148B**

Reserved

**SECTION 3149B**



**Reserved**

**SECTION 3150B**

**Reserved**

**SECTION 3151B**

**Reserved**

**SECTION 3152B**

**Reserved**

**SECTION 3153B**

**Reserved**

**SECTION 3154B**

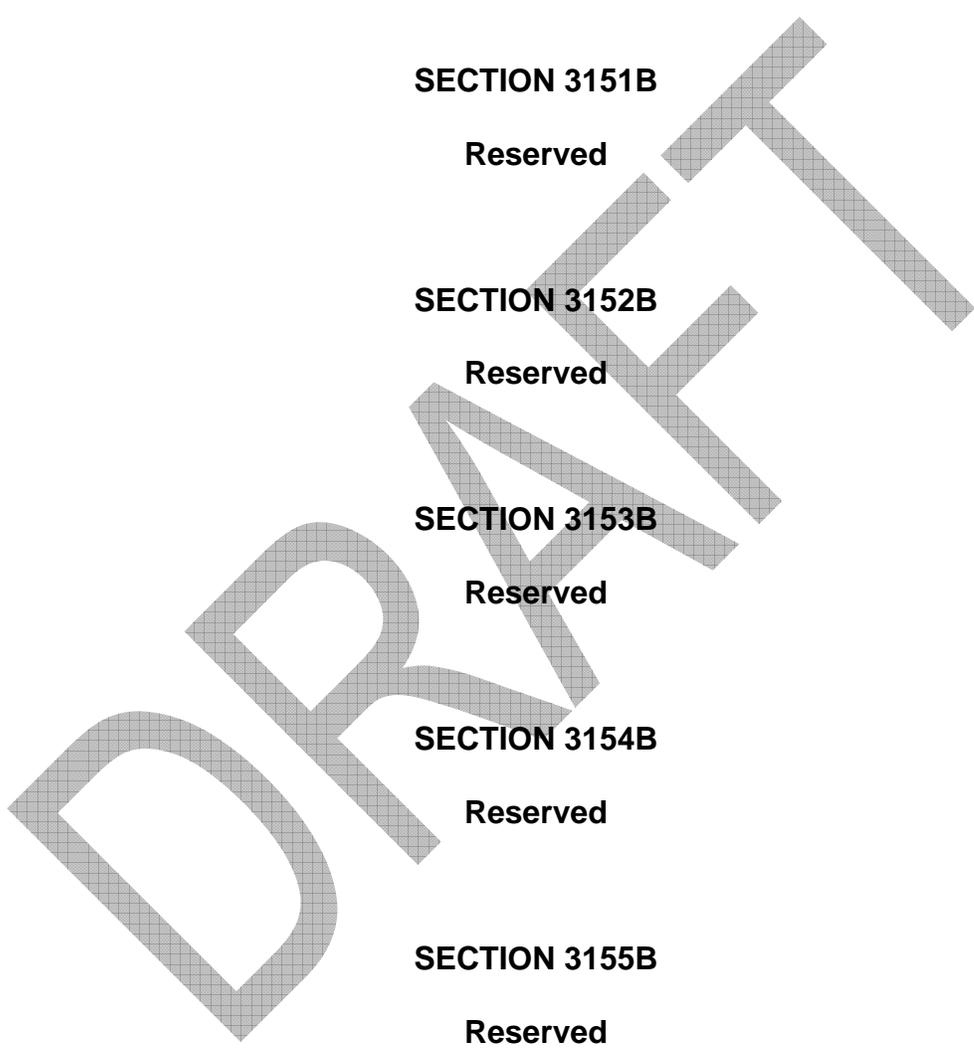
**Reserved**

**SECTION 3155B**

**Reserved**

**SECTION 3156B**

**Reserved**



**SECTION 3157B**

**Reserved**

**SECTION 3158B**

**Reserved**

**SECTION 3159B**

**Reserved**

**Division II – PUBLIC SWIMMING POOLS**

**Note:** These building standards are in statute but have not been adopted through the regulatory process. Enforcement of these standards set forth in this section does not depend upon adoption of regulations; therefore, enforcement agencies shall enforce the standards pursuant to the timeline set forth in this section prior to adoption of related regulations.

**SECTION 3160B**

**GROUND FAULT CIRCUIT INTERRUPTERS**

1. "Public swimming pool," as used in this section, means any swimming pool operated for the use of the general public with or without charge, or for the use of the members and guests of a private club, including any swimming

pool located on the grounds of a hotel, motel, inn, an apartment complex or any residential setting other than a single-family home. For purposes of this section, "public swimming pool" shall not include a swimming pool located on the grounds of a private single-family home, or a swimming pool owned or operated by the state or any local governmental entity as set forth in Section 116049 of the Health and Safety Code.

2. All dry-niche light fixtures, and all underwater wet-niche light fixtures operating at more than 15 volts in public swimming pools, as defined in this section, shall be protected by a ground fault circuit interrupter in the branch circuit, and all light fixtures in public swimming pools shall have encapsulated terminals.
3. Any public swimming pool that does not meet the requirements specified in Item 2 by January 1, 1998, shall be retrofitted to comply with these requirements by July 1, 1998.
4. The ground-fault circuit interrupter required pursuant to this section shall comply with Underwriter's Laboratory standards.
5. The owner or operator of a public swimming pool shall have its public swimming pool inspected by a qualified inspector on or before September 1, 1998, to determine compliance with this section.
6. All electrical work required for compliance with this section shall be performed by an electrician licensed pursuant to Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code.

**SECTION 3161B**

**WADING POOLS**

1. "Public wading pool" means a pool that meets all of the following criteria:
  - 1.1 It has a maximum water depth not exceeding 18 inches (457 mm).
  - 1.2 It is a pool other than a pool that is located on the premises of a one-unit or two-unit residence, intended solely or the use of the residents or guests.
2. "Public wading pool" includes, but is not limited to, a pool owned or operated by private persons or agencies, or by state or local governmental agencies.
3. "Public wading pool" includes, but is not limited to, a pool located in an apartment house, hotel or similar setting that is intended for the use of residents or guests.
4. "Alteration" means any of the following:
  - 4.1 To change, modify or rearrange the structural parts or the design.
  - 4.2 To enlarge.
  - 4.3 To move the location of.
  - 4.4. To install a new water circulation system.
  - 4.5. To make any repairs costing fifty dollars (\$50) or more to an existing circulation system.
5. A public wading pool shall have at least two circulation drains per pump that are hydraulically balanced and symmetrically plumbed through one or more T fittings, and are separated by a distance of at least 3 feet (914 mm) in any dimension between drains.

6. All public wading pool main drain suction outlets that are under 12 inches (305 mm) across shall be covered with antivortex grates or similar protective devices. All main drain suction outlets shall be covered with grates or antivortex plates that cannot be removed except with the use of tools. Slots or openings in the grates or similar protective devices shall be of a shape, area and arrangement that would prevent physical entrapment and would not pose any suction hazard to bathers.
7. The maximum velocity in the pump suction hydraulic system shall not exceed 6 feet per second (1.8 m/s) when 100 percent of the pump's flow comes from the main drain system and any main drain suction fitting in the system is completely blocked.
8. On or after January 1, 1998, all newly constructed public wading pools shall be constructed in compliance with this section.
9. Commencing January 1, 1998, whenever a construction permit is issued for alteration of an existing public wading pool, it shall be retrofitted so as to be in compliance with this section.
10. By January 1, 2000, every public wading pool, regardless of the date of original construction, shall be retrofitted to comply with this section.

[SB, Statutes of 1997, C.913]

**SECTION 3162  
ANTI-ENTRAPMENT DEVICES AND SYSTEMS**

1. The Legislature finds and declares that the public health interest requires that there be uniform statewide health and safety standards for public swimming pools to prevent physical entrapment and serious injury to children and adults. It is the intent of the Legislature to occupy the whole field of health and safety standards for public swimming pools and the requirements established in this article and the regulations adopted pursuant to this article shall be exclusive of all local health and safety standards relating to public swimming pools.
2. As used in this section, the following words have the following meanings:
  - (a) "ASME/ANSI performance standard" means a standard that is accredited by the American National Standards Institute and published by the American Society of Mechanical Engineers.
  - (b) "ASTM performance standard" means a standard that is developed and published by ASTM International.
  - (c) "Main drain" means a submerged suction outlet typically located at the bottom of a swimming pool that conducts water to a recirculating pump.
  - (d) "Public swimming pool" means an outdoor or indoor structure,

whether in-ground or above-ground, intended for swimming or recreational bathing, including a swimming pool, hot tub, spa, or nonportable wading pool, that is any of the following:

- (i) Open to the public generally, whether for a fee or free of charge.
  - (ii) Open exclusively to members of an organization and their guests, residents of a multiunit apartment building, apartment complex, residential real estate development, or other multifamily residential area, or patrons of a hotel or other public accommodations facility.
  - (iii) Located on the premises of an athletic club, or public or private school.
- (e) “Qualified individual” means a contractor who holds a current valid license issued by the State of California or a professional engineer licensed in the State of California who has experience working on public swimming pools.
- (f) “Safety vacuum release system” means a vacuum release system that ceases operation of the pump, reverses the circulation flow, or otherwise provides a vacuum release at a suction outlet when a blockage is detected.

(g) "Skimmer equalizer line" means a suction outlet located below the waterline and connected to the body of a skimmer that prevents air from being drawn into the pump if the water level drops below the skimmer weir. However, a skimmer equalizer line is not a main drain.

(h) "Unblockable drain" means a drain of any size and shape that a human body cannot sufficiently block to create a suction entrapment hazard.

3. Subject to Subdivision (4), an ASME/ANSI or ASTM performance standard relating to anti-entrapment devices or systems or an amendment or successor to, or later published edition of an ASME/ANSI or ASTM performance standard relating to anti-entrapment devices or systems shall become the applicable standard in California 90 days after publication by ASME/ANSI or ASTM, respectively, provided that the performance standard or amendment or successor to, or later published edition is approved by the department within 90 days of the publication of the performance standard by ASME/ANSI or ASTM, respectively. Notwithstanding any other law, the department may implement, interpret, or make specific the provisions of this section by means of a policy letter or similar instruction and this action by the department shall not be subject to the rulemaking requirements of the Administrative Procedure Act (Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code).

4. Subject to Subdivision (7), every public swimming pool shall be equipped with anti-entrapment devices or systems that comply with ASME/ANSI performance standard A112.19.8, as in effect December 31, 2009, or any applicable ASME/ANSI performance standard that has been adopted by the department pursuant to Subdivision (3).
  
5. Subject to Subdivisions (6) and (7), every public swimming pool with a single main drain that is not an unblockable drain shall be equipped with at least one or more of the following devices or systems that are designed to prevent physical entrapment by pool drains:
  - (a) A safety vacuum release system that has been tested by a department-approved independent third party and found to conform to ASME/ANSI performance standard A112.19.17, as in effect on December 31, 2009, or any applicable ASME/ANSI performance standard that has been adopted by the department pursuant to Subdivision (3), or ASTM performance standard F2387, as in effect on December 31, 2009, or any applicable ASTM performance standard that has been adopted by the department pursuant to Subdivision (3).
  
  - (b) A suction-limiting vent system with a tamper-resistant atmospheric opening, provided that it conforms to any applicable ASME/ANSI or ASTM

- performance standard that has been adopted by the department pursuant to Subdivision (3).
- (c) A gravity drainage system that utilizes a collector tank, provided that it conforms to any applicable ASME/ANSI or ASTM performance standard that has been adopted by the department pursuant to Subdivision (3).
  - (d) An automatic pump shut-off system tested by a department-approved independent third party and found to conform to any applicable ASME/ANSI or ASTM performance standard that has been adopted by the department pursuant to Subdivision (3).
  - (e) Any other system that is deemed, in accordance with federal law, to be equally effective as, or more effective than, the systems described in paragraphs (a) to (d), inclusive, at preventing or eliminating the risk of injury or death associated with pool drainage systems.
6. Every public swimming pool constructed on or after January 1, 2010, shall have at least two main drains per pump that are hydraulically balanced and symmetrically plumbed through one or more "T" fittings, and that are separated by a distance of at least three feet in any dimension between the drains. A public swimming pool constructed on or after January 1, 2010, that

meets the requirements of this subdivision, shall be exempt from the requirements of Subdivision (5).

7. A public swimming pool constructed prior to January 1, 2010, shall be retrofitted to comply with Subdivisions (4) and (5) by no later than July 1, 2010, except that no further retrofitting is required for a public swimming pool that completed a retrofit between December 19, 2007, and January 1, 2010, that complied with the Virginia Graeme Baker Pool and Spa Safety Act (15 U.S.C. Sec. 8001 et seq.) as in effect on the date of issue of the construction permit, or for a nonportable wading pool that completed a retrofit prior to January 1, 2010, that complied with state law on the date of issue of the construction permit. A public swimming pool owner who meets the exception described in this subdivision shall do one of the following prior to September 30, 2010:

- a. File the form issued by the department pursuant to subdivision (g), as otherwise provided in subdivision (h).
- b. File a signed statement attesting that the required work has been completed.
- c. Provide a document containing the name and license number of the qualified individual who completed the required work.

- d. Provide either a copy of the final building permit, if required by the local agency, or a copy of one of the following documents if no permit was required:
- (i) A document that describes the modification in a manner that provides sufficient information to document the work that was done to comply with federal law.
  - (ii) A copy of the final paid invoice. The amount paid for the services may be omitted or redacted from the final invoice prior to submission.
8. Prior to March 31, 2010, the department shall issue a form for use by an owner of a public swimming pool to indicate compliance with this section. The department shall consult with county health officers and directors of departments of environmental health in developing the form and shall post the form on the department's Internet Web site. The form shall be completed by the owner of a public swimming pool prior to filing the form with the appropriate city, county, or city and county department of environmental health. The form shall include, but not be limited to, the following information:
- a. A statement of whether the pool operates with a single or split main drain.

- b. Identification of the type of anti-entrapment devices or systems that have been installed pursuant to Subdivision (4) and the date or dates of installation.
  - c. Identification of the type of devices or systems designed to prevent physical entrapment that have been installed pursuant to Subdivision (5) in a public swimming pool with a single main drain that is not an unblockable drain and the date or dates of installation or the reason why the requirement is not applicable.
  - d. A signature and license number of a qualified individual who certifies that the factual information provided on the form in response to paragraphs (a) to (c), inclusive, is true to the best of his or her knowledge.
9. A qualified individual who improperly certifies information pursuant to Paragraph (d) of Subdivision (8) shall be subject to potential disciplinary action at the discretion of the licensing authority.
10. Except as provided in Subdivision (7), each public swimming pool owner shall file a completed copy of the form issued by the department pursuant to this section with the city, county, or city and county department of environmental health in the city, county, or city and county in which the swimming pool is located. The form shall be filed within 30 days following the completion of the

swimming pool construction or installation required pursuant to this section or, if the construction or installation is completed prior to the date that the department issues the form pursuant to this section, within 30 days of the date that the department issues the form. The public swimming pool owner or operator shall not make a false statement, representation, certification, record, report, or otherwise falsify information that he or she is required to file or maintain pursuant to this section.

11. In enforcing this section, health officers and directors of city, county, or city and county departments of environmental health shall consider documentation filed on or with the form issued pursuant to this section by the owner of a public swimming pool as evidence of compliance with this section. A city, county, or city and county department of environmental health may verify the accuracy of the information filed on or with the form.
12. To the extent that the requirements for public wading pools imposed by Section 116064 conflict with this section, the requirements of this section shall prevail.
  - a. Until January 1, 2014, the department may assess an annual fee on the owners of each public swimming pool, to be collected by the applicable local health department, in an amount not to exceed the amount necessary to defray the department's costs of carrying out its duties under

- Section 116064.1 and this section but in no case shall this fee exceed six dollars (\$6).
- b. The local health department may retain a portion of the fee collected pursuant to paragraph (a) in an amount necessary to cover the administrative costs of collecting the fee, but in no case to exceed one dollar (\$1).
- c. The local health department shall bill the owner of each public swimming pool in its jurisdiction for the amount of the state fee. The local health department shall transmit the collected state fee to the Controller for deposit into the Recreational Health Fund, which is hereby created in the State Treasury. The local health department shall not be required to take action to collect an unpaid state fee, but shall submit to the department, every six months, a list containing the name and address of the owner of each public swimming pool who has failed to pay the state fee for more than 90 days after the date that the bill was provided to the owner of the public swimming pool.
- d. Owners that are exempt from local swimming pool permit fees shall also be exempt from the fees imposed pursuant to this subdivision.

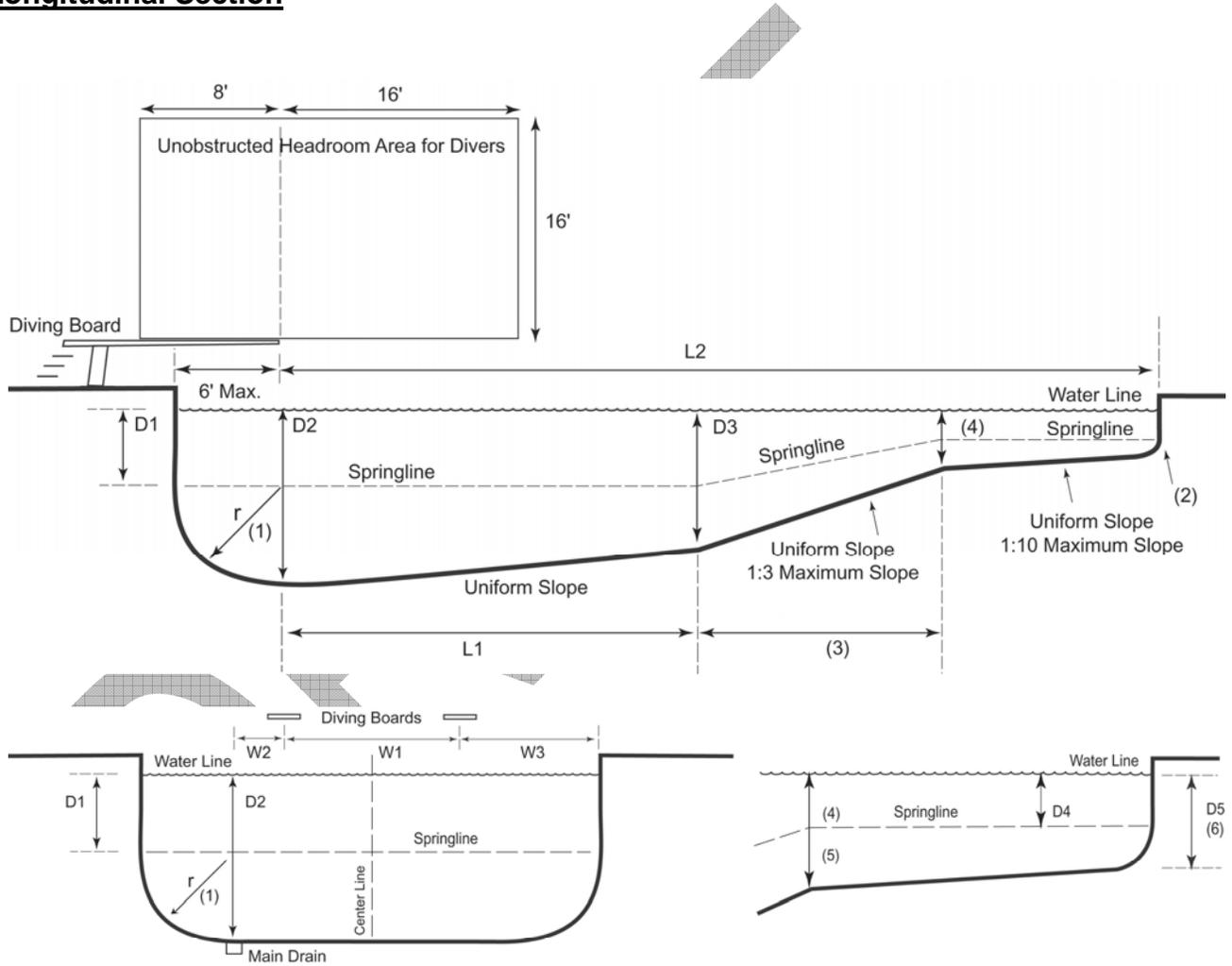
- e. Except as provided in paragraph (b), all moneys collected by the department pursuant to this section shall be deposited into the Recreational Health Fund. Notwithstanding Section 16305.7 of the Government Code, interest and dividends on moneys in the Recreational Health Fund shall also be deposited in the fund. Moneys in the fund shall, upon appropriation by the Legislature, be available to the department for carrying out its duties under Section 116064.1 and this section and shall not be redirected for any other purpose.

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Figure 31B-1

**Depths and Clearances for Pools with Diving Boards  
Greater than 30 Inches above the Water Line**

**Longitudinal Section**



**Enlarged Shallow End Section**

**Transverse Section through Main Drain, Deep End**

**Table 31B-1**

		Depth of Water					Length of Section				
		D1	D2	D3	D4	D5	L1	L2	W1	W2	W3
<b>Boards and Platforms</b>	<b>Dim.</b>										
<b>1-Meter Board</b>	<b>Min.</b>	6' 0"	12' 0"	11' 0"	2' 6"	0' 0"	20' 0"	30' 0"	10' 0"	5' 0"	11' 0"
<b>3-Meter Board</b>	<b>Min.</b>	7' 0"	13' 0"	12' 0"	2' 6"	0' 0"	20' 0"	40' 0"	10' 0"	5' 0"	12' 0"

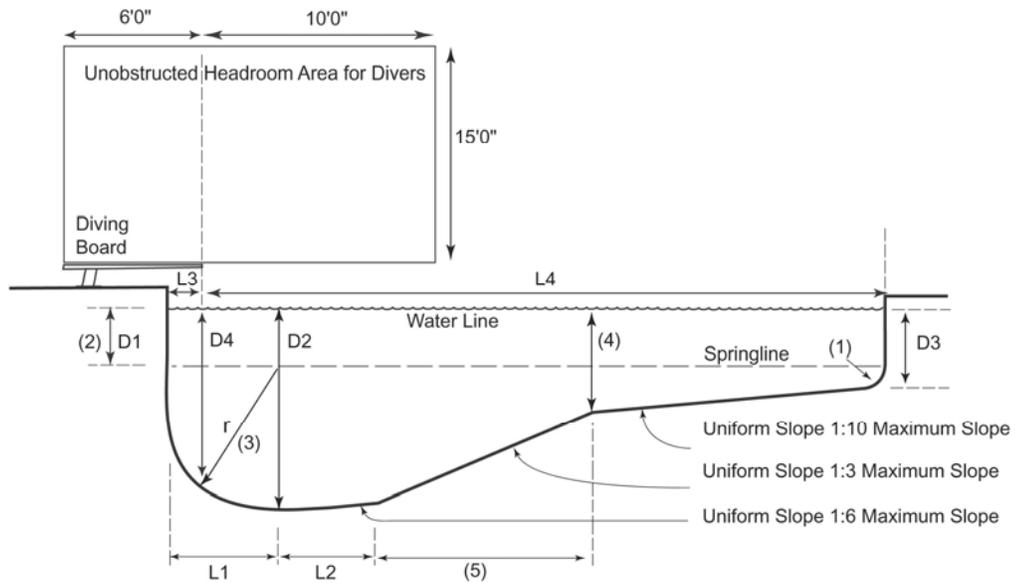
Notes for Figure 31B-1 and Table 31B-1:

- (1) Maximum radius shall equal D2 minus D1 dimensions.
- (2) Radius at the shallow end shall not be less than 6 inches nor more than 12 inches.
- (3) Length of section based on maximum slope and other maximum and minimum dimensions.
- (4) Where there is a break in slope, the break shall be located at a water depth equal to 4'6".
- (5) The springline depth at (4) shall not be less than 2'6" nor more than 4'0".
- (6) The maximum water depth shall be 3'6".

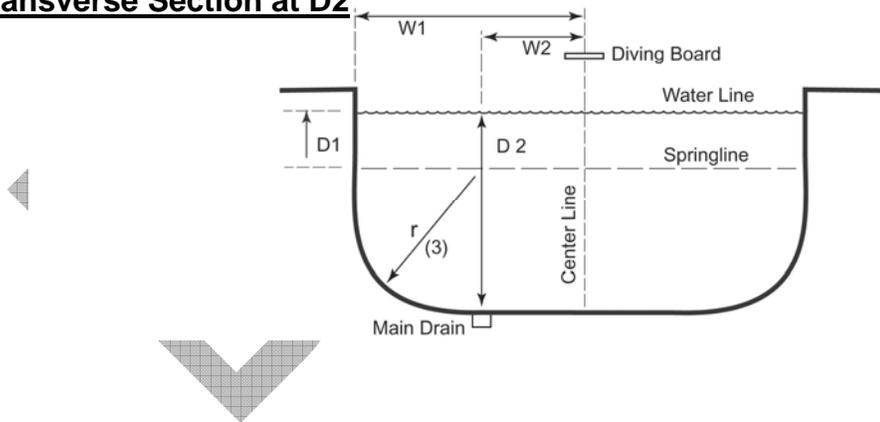
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**Figure 31B-2**  
**Depths and Clearances for Pools with Diving Boards**  
**30 Inches or Less Above the Water Line**

**Longitudinal Section**



**Transverse Section at D2**



**Table 31B-2**

Dimension	Depth of Water				Length of Section					
	D1	D2	D3	D4	L1	L2	L3	L4	W1	W2
Minimum	2' 6"	8'6"	0'0"	7'0"	6'0"	6'0"	2' 6"	30'0"	9'0"	3'0"
Maximum	---	---	3'6"	---	10'0"	---	4'0"	---	---	---

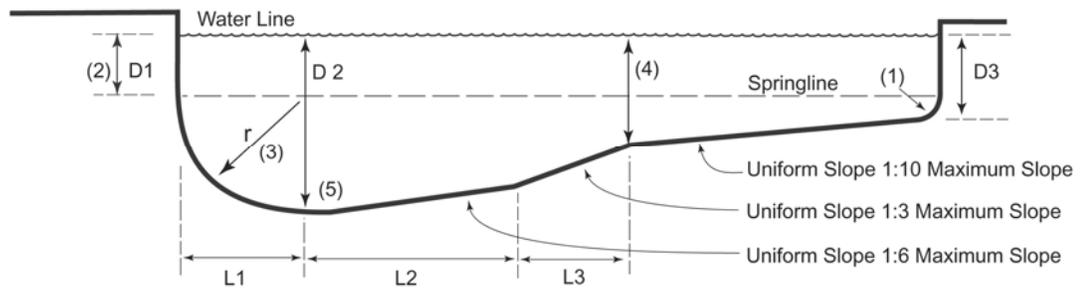
Notes for Figure 31B-2 and Table 31B-2:

- (1) Radius at the shallow end shall have a minimum 0'6" and a maximum 1'0".
- (2) Springline D1 shall extend to the break in slope between the shallow area and the deep area.
- (3) Maximum radius shall equal D2 minus D1 dimensions.
- (4) Where there is a break in slope, the break in slope shall be located at a water depth equal to 4'6".
- (5) Length of section based on maximum slope and other maximum and minimum dimensions.

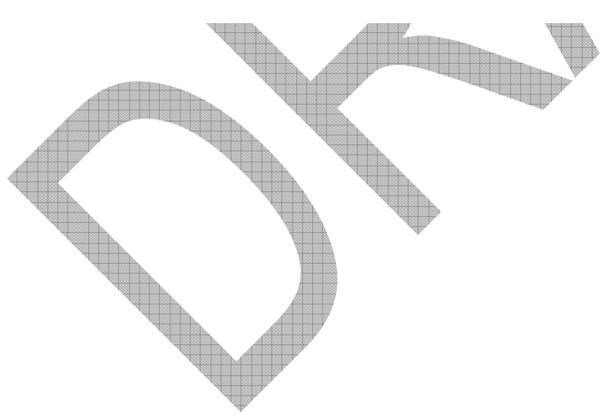
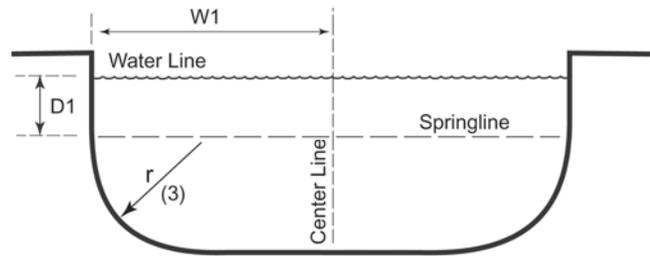
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**Figure 31B-3**  
**Depths and Clearances for Pools without Diving Boards**

**Longitudinal Section**



**Transverse Section at D2**



**Table 31B-3a**  
Pools with Maximum Water Depth  $\leq$  6'0"

Dimension	Depth of Water			Length of Section			
	D1	D2	D3	L1	L2	L3	W1
<b>Minimum</b>	2' 6"	(5)	0'0"	3'6"	3'0"	3'0"	6'0"
<b>Maximum</b>	---	6'0"	3'6"	---	---	---	---

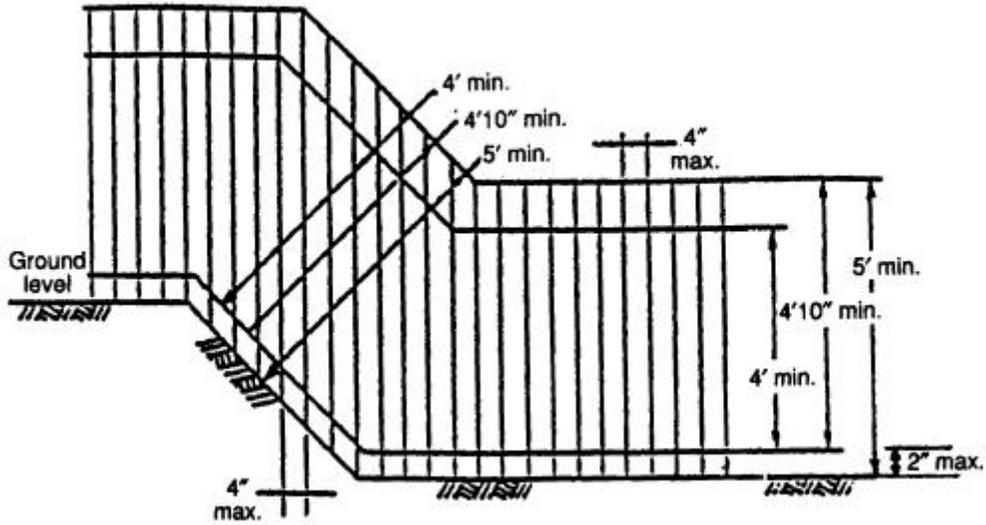
**Table 31B-3b**  
Pools with Maximum Water Depth > 6'0"

Dimension	Depth of Water			Length of Section		
	D1	D2	D3	L1	L2	W1
<b>Minimum</b>	2' 6"	(5)	0'0"	3'6"	3'0"	7'6"
<b>Maximum</b>	---	---	3'6"	---	---	---

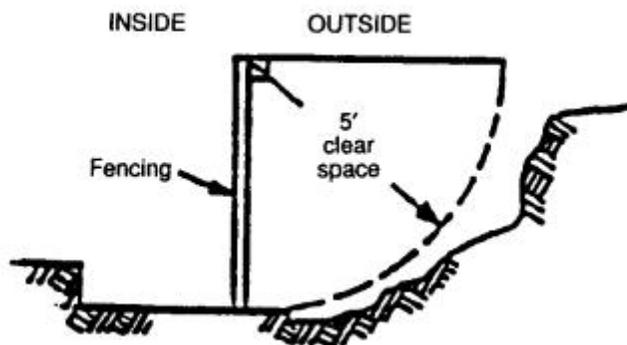
Notes for Figure 31B-3, and Tables 31B-3a and 31B-3b

- (1) Radius at the shallow end shall have a minimum 0'6" and a maximum 1'0".
- (2) Springline D1 shall extend to the break in slope between the shallow area and the deep area.
- (3) Maximum radius shall equal D2 minus D1 dimensions.
- (4) Where there is a break in slope, the break in slope shall be located at a water depth equal to 4'6".
- (5) Main drain shall be located to provide complete drainage of the pool.

**FIGURE 31B-4— PERPENDICULAR FENCING DIMENSIONS ON SLOPING GROUND**

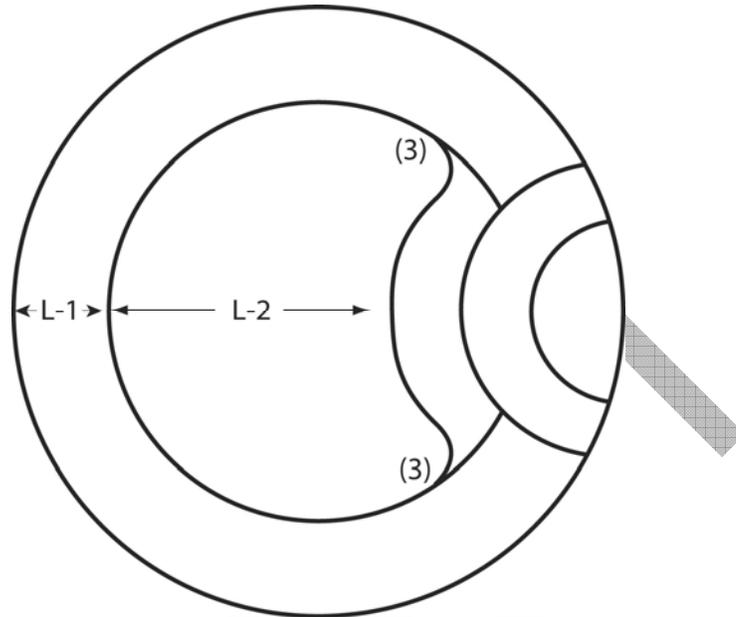


**FIGURE 31B-5— EFFECTIVE FENCING HEIGHT**



**FIGURE 31B-46 - DEPTHS AND DIMENSIONS FOR SPA POOLS**

**Top View**



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