



Calaveras County Environmental Management Agency

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Major Remodel Plan Review or New Construction Application

Name of Facility: _____

Physical Address: _____

Mailing Address: _____

Year Pool or Spa Built: _____

If multiple pools or spas on site, identify which one to be remodeled: _____

Company or Individual Doing Work: _____

Address: _____ Contractor's License #: _____

Phone #: _____ Fax #: _____

All pool plans must be on at least 18" x 24" paper, drawn to scale (minimum 1/4" per foot)

All spa & wading pool plans must be on at least 18" x 24" paper, drawn to scale (minimum 1" per foot)

Please choose one: Pool Spa Wading Pool Water Park Attraction

Capacity (gallons): _____ GPM Required: _____ Max Bathing Load: _____

Design:

Shape: _____ Dimensions: _____ Area (square feet): _____

Depth (shallow): _____ Depth (deep): _____

Grade Break: _____ Material: _____ Finish Type & Color: _____

Filter:

Mfg: _____ Type: _____ Model #: _____

Quantity: _____ Total Area (square feet): _____ Turnover Capacity GPM: _____

Pump(s):

Mfg: _____ Model #: _____

H.P.: _____ Capacity GPM: _____

Jet Pump:

Mfg: _____ Model #: _____ H.P.: _____ GPM: _____

Sanitizer:

Mfg: _____ Type: _____ Model #: _____

Flow Meter:

Mfg: _____ Model #: _____

***** Below For Office Use Only *****

Remodel Approved By: _____ Date: _____

Comments: _____

Total Fees Due: _____ Date Received: _____

By Whom: _____ Receipt #: _____

ITEMS ON THE FOLLOWING CHECK LIST ARE BASED UPON SECTION CONTAINED WITHIN TITLE 22 AND TITLE 24, CALIFORNIA CODE OF REGULATIONS, AND CALIFORNIA HEALTH AND SAFETY CODE.

A. SPECIAL POOL CLASSIFICATIONS (3103B)

- _____ 1. SPA: Maximum surface area 250 square feet; maximum depth 4 feet.
- _____ 2. Temporary Training Pool: Maximum depth 3 feet.
- _____ 3. Wading Pool: Maximum depth 18 inches; maximum sidewall depth 12 inches.

B. POOL CONSTRUCTION (3106B)

- _____ 1. Except for SPAS, the finish color shall be white.
- _____ 2. SPA pools permitted to be finished in a pastel color other than white.
- _____ 3. SPA pool bench and step edges to be a contrasting color.
- _____ 4. Pool free from projections or recessed areas. EXCEPTION: Bench permitted in SPA pools if the water depth over a bench does not exceed 24 inches.

C. TEMPORARY TRAINING POOL – ADDITIONAL REQUIREMENTS (3107B)

- _____ 1. Complies with Section 3106B.
- _____ 2. Installed on a paved level surface which extends at least 10 feet beyond pool walls.
- _____ 3. Provided with a solid cover that will support 40 lbs./square feet.
- _____ 4. Pool and cover designed by a registered engineer.

D. GEOMETRY (3108B)

- _____ 1. Geometry of pool conforms to one of the appropriate diagrams at figures 31B-1 through 31B-3. EXCEPTION: Special use pools shall be permitted, a depth greater than 3 ½ feet at shallowest end.
- _____ 2. Safety rope fasteners required at 4 ½ feet depth when there is a break in slope.

E. PERMANENT MARKINGS (3109B)

- _____ 1. Width of slip-resistant lane line markings not to exceed 12 inches.
- _____ 2. Four inch wide slip-resistant line across bottom of pool required at 4 ½ feet depth. EXCEPTION: Pools with depth not exceeding 5 feet are exempt from requirement.
- _____ 3. Design on bottom or sides which resemble human form prohibited.
- _____ 4. Depth markers required at (a) maximum depth, (b) minimum depth, (c) each end, (d) break in slope, (e) on perimeter at increments not exceeding 25 feet. EXCEPTION: SPA and wading pools shall have at least 2 depth markers.
- _____ 5. Pool width greater than 20 feet: Slip-resistant depth markers required on edge of deck.
- _____ 6. Depth markers shall have numerals a minimum of 3 inches in height and of color contrasting with the background.

F. STEPS AND LADDERS (3110B)

- _____ 1. If the vertical distance from the bottom of the pool to the deck exceeds 2 feet in the shallow portion, steps or ladders are required.
- _____ 2. If depth in deep portion exceeds 4 ½ feet, ladders are required.
- _____ 3. If pool width exceeds 30 feet, ladders are required on both sides at increments not exceeding 100 feet.
- _____ 4. Ladders - clearance to pool wall must be not less than 3 inches or more than 5 inches.
- _____ 5. Recessed steps – minimum tread 5 inches, minimum width 14 inches, handrails required on each side and must extend over deck edge.

- 6. Minimum tread of stairs 12 inches, maximum risers 12 inches. Risers and treads shall be uniform. If top steps curve convexly, top step tread to be at least 18 inches, measured at widest point.
- 7. Safety rail extends from deck to a point above top of lowest step. Upper surface of safety rail located at 28 inches above deck. EXCEPTION: See #8.
- 8. SPA: Two safety rails, required for risers greater than 9 inches; one safety rail required for risers 9 inches or less. Leading railing edge extends to a point not less than 12 inches from the plane of the bottom riser.

G. HANDHOLDS (3111B)

- 1. Located not more than 9 inches above water level, around entire pool perimeter. EXCEPTION: Handholds not required at wading pools.
- 2. Bull-nosed coping or cantilevered decking that is not over 2 ½ inches thick for outer 2 inches, and extends more than 1 inch and less than 2 inches past vertical pool edge. EXCEPTION (1): Other types of handholds permitted at SPAS. EXCEPTION (2): See #3.
- 3. For special use pools used for instruction or competitive swimming, perimeter overflow lip required.

H. DECKS (3113B)

- 1. Four foot minimum deck to surround pool and both sides and rear of diving board or slide. EXCEPTION: Deck required only on 50% of SPA pool perimeter. SPA deck to be at least 4 feet wide at steps.
- 2. Six foot clearance between SPA and adjacent pool.
- 3. Temporary training pool: Deck may be omitted. If raised deck is provided, handrail is required at perimeter.
- 4. Deck sloping at least ¼ inch per foot away from pool to planter, deco drain, or other appropriate drainage.
- 5. If there are deck drains, not more than 400 square feet per 4 inches drain, and drains spaced not more than 25 feet apart.
- 6. Coping shall be slip resistant.
- 7. SPA: Landscape planters, flower beds, or similar unpaved areas shall not be located within 4 feet of spa.

I. SHOWERS, DRESSING FACILITIES, AND TOILETS (3115B)

- _____ 1. One bather/15 square feet of pool surface. Divide factor by 2 to determine sex distribution.
- _____ 2. One shower/50 bathers. EXCEPTION: Showers and dressing facilities not required if available in adjacent living quarters, within 300 feet of pool.
- _____ 3. One toilet/60 women; one toilet and urinal/75 men; one lavatory/80 bathers. EXCEPTION: Restrooms not required if they are available within 300 feet of pool at living quarters or adjacent building.
- _____ 4. Floors sloped not less than ¼ inch per foot to drains or other approved surface disposals.
- _____ 5. Shower and lav temperature control which limits temperature to 110° F.
- _____ 6. Hot and cold water to showers and lavatories.

J. DRINKING FOUNTAINS (3116B)

- _____ 1. Guarded angle jet drinking fountains required unless water is available at adjacent living quarters or adjacent building. Number of fountains based upon one bather/15 square feet and computed at 1 fountain/250 bathers plus an additional fountain for each additional 200 bathers.

K. HOSE BIBBS (3117B)

- _____ 1. Provided at each pool and protected against backflow, within 75 feet of all deck areas.

L. FENCING AND GATES (3118B, Figures 31B-4 and 31B-5)

- _____ 1. Provided at each pool and spa pool, enclosed by 5 feet minimum height fence, building, or enclosure. NOTE: Doors, openable windows, or gates of living quarters or associated private premises shall not be permitted as part of the pool enclosure.
- _____ 2. Openings, holes or gaps in the enclosure, doors and/or gates shall not allow the passage of a 4 inch diameter sphere. The bottom of the enclosure shall be within 2 inches of the finished grade.
- _____ 3. Horizontal members shall be spaced at least 48 inches apart. Horizontal and diagonal member designs, which might serve as a ladder for small children, are prohibited.
- _____ 4. Chain link openings are not greater than 1 ¾ inches measured horizontally.
- _____ 5. Gates and doors shall be equipped with self-closing and self-latching devices located at least 3 ½ feet above the deck or walkway. 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.
- _____ 6. 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.
- _____ 7. Gates and doors shall open outward away from the pool except where otherwise prohibited by law.

M. SIGNS (3119B, 65539) and Safety Equipment (3108B, 65529, 65539) (680-13, 3114B)

- _____ 1. Occupant Load – bather/20 square feet of water surface area except SPA, 1 bather/10 square feet. EXCEPTION: Wading pools exempt.
- _____ 2. “No Diving Allowed” sign for pools less than six feet deep.
- _____ 3. Gas Chlorine warning sign.
- _____ 4. SPA warning sign.
- _____ 5. Artificial Respiration Procedures sign.
- _____ 6. “Warning No Lifeguard” sign.
- _____ 7. Emergency Phone Number sign.
- _____ 8. Rescue pole with body hook.
- _____ 9. Life ring with rope.
- _____ 10. Safety rope with buoys (if slope break).
- _____ 11. Test kit.
- _____ 12. Emergency Shut-Off Switch sign for spa.
- _____ 13. “No Use of Pool Allowed After Dark” (pools without lights).
- _____ 14. Gas Chlorination Equipment Room Switch sign, “Turn On Before Entering.”
- _____ 15. One way to get out without key “Emergency Exit”.

N. INDOOR VENTILATION (3120B)

- _____ 1. Indoor pools shall be adequately ventilated.

O. FOUNDATIONS FOR POOL EQUIPMENT (3121B)

- _____ 1. Equipment to be mounted on concrete pad and sloped at least ¼ inch per foot to drain or other approved surface disposal.

P. GAS CHLORINE ROOM (3122B)

- _____ 1. Room not located below ground level.
- _____ 2. Entry door shall open to the exterior of the building and shall not open directly toward the pool or pool deck.
- _____ 3. Mechanical exhaust which produces at least 60 air changes per hour and is vented to outside air. Discharge located at least 10 feet from windows or adjacent building.
- _____ 4. Fresh air intake within 6 inches of ceiling.
- _____ 5. Spray bottle of commercial strength ammonia.

Q. SHARED RECIRCULATION (3123B.1)

- _____ 1. SPA: Two spa pools permitted to share the same recirculation and treatment system provided that the flow and sanitization are individually metered and adjustable.

R. TURNOVER TIME (3124B)

- _____ 1. SPA Pool – one-half hour or less.
- _____ 2. Wading Pool – one hour or less.
- _____ 3. Temporary Training Pool – two hours or less.
- _____ 4. Public Swimming Pool – six hours or less.

S. RECIRCULATION (3125B AND 116064)

- _____ 1. Flow velocity not to exceed 10 feet per second on inlet piping and 8 feet per second on suction piping. (Note: Check manufacturer’s recommendation for maximum gpm suction flow thru skimmer.) EXCEPTION: Maximum flow velocity not to exceed 6 feet per second on suction of wading pools when 100% of the pump’s flow comes from the main drain system.
- _____ 2. Pressure gauge on filter influent and effluent lines.
- _____ 3. Vacuum gauge on suction type filters.
- _____ 4. Approved flowmeter accurate within 10%.
- _____ 5. Valve identification with directional flow.

T. PUMP CAPACITIES – DESIGN FLOW (3126B)

- _____ 1. Pressure D.E. – 60 foot head.
- _____ 2. Vacuum D.E. – 40 foot head and 20 inches vacuum on the suction side.
- _____ 3. Rapid sand – 45 foot head.
- _____ 4. High rate sand – 60 foot head.
- _____ 5. Cartridge – 60 foot head.

U. WATER SUPPLY (3127B)

- _____ 1. Permanently installed line. EXCEPTION: Spa pools, temporary pools and pools less than 1500 gallons are exempt.
- _____ 2. Air gap, vacuum breaker, or double check valve attached to permanently installed line.

V. FILTER REQUIREMENT (3128B THROUGH 3131B)

- _____ 1. Rapid sand – maximum 3 GPM per square foot; backwash minimum 12 GPM per square foot.
- _____ 2. D.E. – maximum 2 GPM per square foot, maximum 2 ½ GPM for continuous feeding of filter aid for pools 2000 square feet or more.
- _____ 3. High rate sand – suggested maximum 15 GPM per square foot; backwash minimum 15 GPM per square foot.
- _____ 4. Cartridge - .375 GPM per square foot, or less as per manufacturer – must be NSF approved.

W. DISINFECTANT FEEDER (3133B)

- _____ 1. Approved type.
- _____ 2. If gas chlorine, scale required.

X. SKIMMERS (3134B) (Pool area not over 5000 square feet)

- _____ 1. One skimmer for each 500 square feet or fraction thereof.
- _____ 2. Capable of withdrawing minimal 75% required recirculation capacity.
- _____ 3. Built-in type and recessed into pool wall.
- _____ 4. Adjust automatically to variations in water level, minimum 4 inches range.
- _____ 5. Anti-airlock device – equalizer line.
- _____ 6. Screen trap (Basket).
- _____ 7. Gate valve.

Y. PERIMETER OVERFLOW (3134B) (Required for pools over 5000 square feet)

- _____ 1. Capable of withdrawing minimum of 75% required recirculating capacity.
- _____ 2. Channel minimum 3 inches deep; bottom width of channel minimum 3 inches; opening beneath deck into channel minimum 4 inches.
- _____ 3. Channel lip maximum 12 inches below top of deck; rounded lip edge shall not be thicker than 2 ½ inches nor thinner than 1 inch from the top 2 inches.
- _____ 4. Channel outlet minimum 2 ½ inches spaced not more than 15 feet apart and channel slope to outlets not less than ¼ inch per foot.
- _____ 5. Channel drain grates 1 ½ times area of outlet pipe.
- _____ 6. Surge tank storage minimum 1 gallon per square foot of pool surface.
- _____ 7. Automatic surge flow control to make-up water with manual override for maintaining pool water level.

Z. BOTTOM DRAIN (3108B, 3134B, AND 116064)

- _____ 1. Designed so that the pool can be emptied.
- _____ 2. Gate valve.
- _____ 3. Grates removable only with tools.
- _____ 4. SPA ONLY – Duplicate drains for both the recirculation system and aeration/jet system or single drains with safety covers for both systems.
- _____ 5. Wading Pool – Main drain suction outlets under 12 inches across shall be covered with antivortex grates.
- _____ 6. Wading Pool: Two circulation drains per pump, hydraulically balanced and symmetrically plumbed through one or more “T” fittings, and are separated by a distance of at least 3 feet in any dimension between the drains.

AA. INLETS (3134B)

- _____ 1. Minimum of 2 inlets for the first 10,000 gallons and one inlet for each additional 10,000 gallons or fraction thereof. EXCEPTION: Minimum of 1 inlet permitted at SPA.
- _____ 2. Located not less than 18 inches below waterline. EXCEPTION: SPA and wading pools exempt.
- _____ 3. Pools greater than 40 feet in width: One floor inlet/10,000 gallons or fraction thereof.
- _____ 4. Separated by at least 10 feet and shall be located to ensure uniform circulation.
- _____ 5. Wall inlets must be adjustable for both flow and direction and protrude no more than 1 ¼ inches. Floor inlets shall be adjustable for flow and flush with floor.

BB. AERATION/JET SYSTEM (SPA ONLY) (3135B)

- _____ 1. Shall be separate from filtration system and not interconnected with non-spa pool.

CC. CLEANING SYSTEMS (3136B)

- _____ 1. Built-in.
- _____ 2. Portable.
- _____ 3. Jet type (Must have approved BFPD). 15 gal/min. per jet.

DD. WASTE DISPOSAL (3137B)

- _____ 1. Pressure D.E. – separation tank.
- _____ 2. Sand Filters – public sewer with written approval from City Water and Sewer or County Water Quality Division.
- _____ 3. Sight glass installed on the waste water discharge line. EXCEPTION: Not required if visible air gap connection to sewer is provided.
- _____ 4. Approved cartridge filter cleaning area.

EE. ELECTRICAL (Article #680) AND LIGHTING (3114B, 3119B.4 and 116049.1)

- _____ 1. SPA emergency shut-off switch. Single switch must shut off both filtration and booster pumps.
- _____ 2. See Sections 680-12 and 680-13.
- _____ 3. Underwater/Deck Lighting (Pool open at night).

FF. ACCESSIBILITY TO THE PHYSICALLY HANDICAPPED PERSON (3104B)

- _____ 1. Swimming pools and their appurtenances shall be in compliance with the requirement of the State Architect for access to public accommodations by physically-handicapped persons. NOTE: See Chapter 11A.

NOTE: WATER PARK RIDES, SLIDES, ETC., REQUIRE A CALIFORNIA REGISTERED STRUCTURAL ENGINEER'S WET STAMP. USE THE "GUIDELINES FOR RECREATIONAL WATER PARKS" TO COMPLETE PLAN REVIEW.

Questions? Please contact the Calaveras County Environmental Health Department at (209)754-6399.