

ENVIRONMENTAL HEALTH DIVISION POOL SAFETY 2020 UPDATES

What is a Pool Operator?

On January 1, 2015, several updates to the Pool Code became effective. One of these updates assigns specific responsibilities to the pool operator. Who is considered the pool operator?

The California Code of Regulations, Title 22, Section 65501, defines the pool operator as:

- The pool owner, or
- A person delegated by the pool owner to conduct public pool operation and maintenance. The pool owner, however, is still responsible for ensuring compliance with regulations.

Every public pool shall be under the supervision of a pool operator, and:

- The pool operator shall maintain pool operating procedures at the site and make the procedures available for review by this division.
- The pool operator shall maintain manufacturers' instructions for the operation and maintenance for all mechanical and electrical equipment and water treatment systems at the public pool site.
- The pool operator shall test the disinfectant residual and pH of the pool at least once per day. Maintain free chlorine in a public pool at minimum 2.0 ppm (with stabilizer) and maximum 10.0 ppm, and pH between 7.2-7.8.
- If cyanuric acid (chlorine stabilizer) is used in the pool, the pool operator shall measure the cyanuric acid once per month to ensure that it is maintained at or below 100 ppm.
- The pool operator shall also test spa (and heated pools) water temperature a minimum of once per day and maintain at or below 104°F.
- If a fecal, vomit, blood contamination, near drowning or drowning incident occurs, the pool operator is responsible for ensuring that proper decontamination procedures are followed.

Disinfection, pH, Cyanuric Acid and Temperature Minimum and Maximum Levels Allowed – Changes Effective 1-1-15

Disinfection concentration requirements:

	Free Chlorine Residual				Bromine Residual	
	No Cyanuric Acid		With Cyanuric Acid			
	<i>Min</i>	<i>Max</i>	<i>Min</i>	<i>Max</i>	<i>Min</i>	<i>Max</i>
Public Pools	1.0 ppm	10.0 ppm	2.0 ppm	10.0 ppm	2.0 ppm	N/A
Public Spas, Wading Pools, and Spray grounds*	3.0 ppm	10.0 ppm	3.0 ppm	10.0 ppm	4.0 ppm	N/A

Min = minimum; Max = maximum; N/A = not applicable

*Spray grounds shall be disinfected with chlorine or bromine and UV, ozone, or other approved method.

Water characteristic requirements:

	<i>Minimum</i>	<i>Maximum</i>
pH	7.2	7.8
Cyanuric Acid Concentration (CYA)	0.0 ppm	100.0 ppm
Pool Water Temperature	N/A	104°F

ppm = parts per million; N/A = not applicable

Turnover Rates

The California Building Code, Title 24, Chapter 31B, provides construction requirements for public pools. The turnover rate is the maximum time allowed to circulate one complete volume of the pool/spa water through the recirculation system. A flow meter is used to measure the flow rate of a pool/spa.

Please see the table below for turnover rate requirements:

Facility Type	Built Prior to 1982	Built in 1982 or After
Swimming pools or other	8 hours	6 hours or less
Medical pools	N/A	2 hours or less
Wading pools	2 hours or less	1 hour or less
Spas	N/A	½ hour or less
Spray grounds	N/A	½ hour or less

N/A = not applicable

Check to be sure your flow meter is functioning properly, and that the proper turnover rate is being met.

Ensuring Test Kit Accuracy

You are required to have a DPD test kit to measure free chlorine and bromine (Test strips are not approved.), but your test kit also needs to be well maintained to ensure a reliable reading. Here are a few recommendations:

- Replace your reagents every year. Most pool supply stores will sell individual refill bottles.
- Follow the test kit manufacturer's directions for use and care of the kit.
- Keep your test kit in a cool location, indoors and away from sunlight.
- Make sure you get your water sample directly from the pool/spa at least 1 foot below surface.
- When adding droplets of reagents, hold the bottle straight up and down.
- If using color-comparison, you may hold a piece of white paper behind the test kit while viewing.

Pool/Spa Operation Records

Data and records collected during the testing and maintenance of a pool need to be maintained at the pool site for at least two years. These records also need to be kept easily available for review during your annual pool inspection. **Records shall be kept for the following:**

- Daily Records – Records of test results for disinfectant, pH, and water temperature. Notes should also be maintained regarding chemical adjustments, such as the addition of chlorine or acid. Include weekends and holidays if opened for use.
- Monthly Records – Cyanuric acid test reading. You may use your own test kit or have the water tested by a pool service company.
- Routine Maintenance Records – Keep notes about filter cleaning/backwash, pump adjustments, and any repairs.
- Incidents – Record the date and decontamination procedures taken in response to any fecal accidents, vomit or blood contamination, or drowning/near-drowning incidents that occurs at the pool facility.

VGB-Compliant Suction Outlet Covers Have Expiration Dates

The expiration dates for VGB-compliant suction outlet covers (main drain and equalizer), per the manufacturer, are usually 5 years. However, some expiration dates are as short as 3 years and some as long as 7 years. These covers need to be replaced to ensure the safety of your pool. When changing your old cover, it is the responsibility of both the pool owner and the pool operator to ensure information on the proposed suction covers and the licensed contractor are submitted to our office for review and approval and the licensed contractor submits a new compliance form to our office. Please see the required *Anti-Entrapment Devices and Systems for Public Pools and Spas Compliance Form*, provided at the following link:

<https://www.co.merced.ca.us/DocumentCenter/View/11193/Anti-Entrapment-Devices-and-Systems-State-Compliance-Form-061410?bidId=>

Please submit the completed form to the Recreational Health Program, by fax at (209) 384-1593 or e-mail rechealth@countyofmerced.com.

Equipment Changes May Require a Plan Check

A new public pool/spa or spray ground requires a plan check to ensure the facility will be built to current code requirements. A renovation also requires a plan check by our office to verify the changes will also meet current codes. A renovation includes, but is not limited to replastering, fencing changes, or equipment changes. If an equipment change is for an exact “like for like” equipment, then a plan check is not required. You may contact the Recreational Health program at rechealth@countyofmerced.com or (209) 381-1100 for more information.

Frequently Asked Questions

Q. Is it approved to fill my pool or spa to the very top of the tile line?

A. No, your water should be kept filled to the middle of the skimmer. If the water level is too high, the surface water will not be pulled into the filter to remove debris floating near the pool surface.

Q. Is it O.K. to allow dogs to swim in the pool?

A. Dogs are not allowed in public pools. Service dogs are permitted on the pool deck, but not in the pool. One dog is equal to multiple pool users. Dog hair and dirt will bind up much of the free chlorine in the pool water. Also, a large quantity of dog hair can end up in the filters, slowing down water turnover, leading to cloudy water.

Q. If my cyanuric acid level is above 100 ppm in my pool or spa, what should I do?

A. During times of drought, it is important to conserve water. The usual remedy is to drain some water and refill the pool with fresh water to dilute the cyanuric acid level. There are products that may help reduce the cyanuric acid levels without draining water and adding fresh water; please see your local pool supply store. Also, you may wish to choose a chlorine product that does not contain cyanuric acid, and you can add the stabilizer separately to better control the amount of cyanuric acid added to your pool or spa.

Q. Am I required to have a test kit on site if I have a pool service provider?

A. Yes, the pool operator shall maintain a DPD test kit for measuring the disinfectant residual, pH, and, if used, cyanuric acid concentration. This test kit shall be available for use by the pool operator and the enforcing agent at all times the pool or spa is in use.

Q. Am I required to have a thermometer on site to measure the water temperature?

A. Yes, if the water is heated prior to going into the pool or spa.

Q. Do I need to test my pool/spa water if I have a pool service?

A. Yes, unless your pool service provider accurately tests and records the pool/spa water daily, every day the pool/spa is open for public use.

Q. Is it O.K. to put chlorine or bromine tablets inside of the skimmer baskets?

A. No, this is not an approved method to dispense chemicals in the skimmer baskets. You must use your approved automatic disinfectant feeder/chlorinator.

Q. Does my pool need to be tested on the weekends and holidays?

A. Yes, if it is open for public use.

Q. Young swimmers play with the safety equipment. Can I keep the safety equipment mounted out of their reach or placed where the equipment is not visible to children?

A. No, required safety equipment shall be readily visible and available for use at the public pool at all times.

Conditions Warranting Immediate Pool or Spa Closure

If the following conditions exist at your pool or spa, or any other immediate hazards to pool/spa users, the facility shall be closed immediately:

- No safety equipment is available, or within reach of users.
- No detectable free chlorine or bromine residual in the water.
- Free chlorine level above 10 ppm.
- Recirculation equipment is not operating during hours of operation.
- Poor water clarity – when you cannot see the main drain while standing next to the pool.
- The main drain cover is loose, damaged, or missing.
- Anti-entrapment devices or systems are non-functioning or disconnected.
- Water temperature is over 104°F.
- Sharp objects, such as broken glass, are in the pool/spa or in the enclosure.
- Electrical hazard in the pool or spa, such as water in the pool/spa light or exposed wires.
- When feces, vomit, or blood are in the water, and until the full disinfection process is completed.
- The gate or fence is damaged, not self-latching and self-closing consistently, and/or broken (Gaps allowing entry into the pool/spa area must be fixed immediately).
- Near-drowning or drowning event.
- The pool/spa light is not working, it is after dark, and the pool/spa is available for use.
- The pump/recirculation system is not working properly.
- The spa emergency shut-off switch is not working or is missing.
- Any other unhealthful, unsafe, or unsanitary conditions deemed to warrant closure.

New Ownership or New Management?

If you are a new owner of a pool or spa facility, you are required to obtain a Health Permit to Operate from Merced County Department of Public Health, Division of Environmental Health. Please submit a completed and signed *Data Entry Form* to our office; this form may be found at the following web page link: <https://www.co.merced.ca.us/DocumentCenter/View/5554/English-Change-of-Owner-Data-Input-091119?bidId=>. Permits are non-transferrable between facility owners.

If you are a new facility manager, please contact (209) 381-1100 or email rechealth@countyofmerced.com to provide your contact information for our records.

Public Pool Codes

Please see the following link for the California Department of Public Health website, containing relevant codes and pertinent information:

<https://www.cdph.ca.gov/Programs/CEH/DRSEM/Pages/EMB/RecreationalHealth/California-Swimming-Pool-Requirements.aspx>.