

ATTACHMENT 7
San Joaquin County Health Department Notice
Title 22 CCR Changes Effective January 1, 2015

Item 1: Pool Chemistry Requirements

| | | Free Chlorine Residual parts per million (ppm) | | | | Bromine Residual (ppm) | | pH | Combined Chlorine (ppm) |
|---|---------------------------|---|-------------|--------------------------|-------------|------------------------------|----------|----------------|-------------------------------|
| | | Without Cyanuric Acid | | With Cyanuric Acid | | Min | Max | | |
| | | Min | Max | Min | Max | | | | |
| Public Pools <i>All public pools (excluding spas, wading pools, and spray grounds)</i> | NEW 01/01/15 | 1.0 | 10.0 | 2.0 | 10.0 | 2.0 | - | 7.2-7.8 | 0.0 - 0.4 |
| | OLD Before 01/01/15 | 1.0 | - | 1.5 | - | N/A | N/A | 7.2-8.0 | N/A |
| Public Spas, Wading Pools, and Spray Grounds | NEW 01/01/15 | 3.0 | 10.0 | 3.0 | 10.0 | 4.0 | - | 7.2-7.8 | 0.0 - 0.4 |
| | OLD Before 01/01/15 | 1.0 | - | 1.5 | - | N/A | N/A | 7.2-8.0 | N/A |

Item 2: Critical Closure Violations

| VIOLATION DESCRIPTION: CHANGES ARE BOLDED | |
|---|---|
| 1 | Failure to maintain clean pool water and clear pool water requirements Bottom of pool, at the maximum depth, is not clearly visible from the deck |
| 2 | Inadequate disinfection Failure to meet microbiological (well-systems) or chemical water-quality standards |
| 3 | Improper pH |
| 4 | Presence of inhalation hazards |
| 5 | Missing or broken suction outlet covers |
| 6 | Missing or broken pool enclosures, including fencing and gates |
| 7 | Hazards to pool users |
| 8 | Any other violation of these regulations identified by the enforcing agent (e.g., lack of safety equipment) |

Item 3: Operational Changes

Variation in Rate Flow:

Must not fall below **75%** of the rate required by the system. (Example: If your calculated flow rate should be 65 gallons per minute, your water flowing through the pump system shall be at least 75% of 65, which would be approximately 49 gallons per minute.)

Previous code allowed for a flow rate reduction of 65%.

Response to incidents is now required by Code:

Including fecal, vomit, blood contamination, and near drowning/drowning incidents. (See page 4). *Previously this procedure was recommendation only.*

For all pools exceeding 75 feet in length or 50 feet in width to provide a rescue pole and life ring that is available on at least 2 opposing sides of the pool at centralized locations.

(Previously only one set of equipment was required.)

Additional Record Keeping Requirements

The concentration of free chlorine/bromine and pH levels are still required to be recorded on a daily basis* and cyanuric acid level (if used) on a monthly basis. Records must be maintained for two years. In addition to free chlorine/bromine and pH levels, the following records must be kept.

Daily Records*:

- Heated pools water temperature
- Equipment readings
- Calibrations
- Corrective actions taken

As Required:

- Combined Chlorine
- Maintenance
- Maintenance Procedures
- Repairs

Item 4: Required Items for Pools with Lifeguards:

- A Red Cross 10-Person Industrial First Aid Kit or equivalent
- An operating telephone
- A Backboard with immobilizer

Item 5: Incident Report Log

Operator must maintain and report to City for fecal, vomit, blood contamination, near drowning, or drowning incidents.

Item 6: Lifeguard Health: Reporting Requirement

If two or more lifeguards or pool users at a public pool report within 5 days of each other to the pool operator that they have had diarrhea, the pool operator shall report this to the enforcing agency.

San Joaquin County Health Department Notice
Recommendations for the Management of Fecal Accidents at Public Pools

1. When a fecal accident occurs, close the pool(s) and instruct all pool users to exit the pool(s) immediately. Do not allow anyone to enter the contaminated pool(s) until all the following steps are completed.
2. Remove as much of the fecal material as possible using a net or scoop and dispose of it in a sanitary manner. Clean and disinfect the net or scoop (e.g., after cleaning, leave the net or scoop immersed in the pool during the disinfection period). Vacuuming stool from the pool is not recommended. If the pool is vacuumed, waste should be directed to a sanitary sewer and not through the filtration system.
3.
 - A. If the fecal accident involves a “formed stool” (solid, not liquid), raise the free available chlorine concentration to 2 mg/L (parts per million) and maintain the pH between 7.2 - 7.5 for at least 25 minutes. If a free available chlorine concentration of 3 mg/L is present, the time can be reduced to 19 minutes.
 - B. If the fecal accident involves “diarrhea or a loose stool,” raise the free available chlorine concentration to 20 mg/L and maintain the pH between 7.2 and 7.5 for at least 8 hours. This is equivalent to a CT value of 9,600. The CT value is the concentration of chlorine in mg/L multiplied by the time in minutes. In this case, a 20 mg/L concentration of chlorine maintained in a pool for 8 hours or 480 minutes will result in a CT value of 9,600 (480 minutes X 20 mg/L). Any combination of chlorine concentration and time resulting in a CT value of 9,600 or greater can be used to achieve disinfection.

For fecal accidents involving “diarrhea or loose stools,” the filter should be thoroughly backwashed to a sanitary sewer after the CT value has been reached and before the pool is reopened.

4. During the entire treatment period, ensure that the pH is maintained between 7.2 and 7.5. The pH may be affected if additional chlorine is added to the pool.
5. Ensure that the filtration system is operating, and the proper free available chlorine concentration is maintained throughout the treatment period. Ensure free available chlorine concentrations are found throughout all areas of the pool or co-circulating pools by sampling in at least three widely spaced locations away from return water inlets.
6. The pool may be reopened after the required time/concentration or CT value has been achieved and the free available chlorine residual is below 5.0 mg/L.
7. If the pool is a low volume pool, such as a spa pool or wading pool, the pool can be drained. The pools should be refilled, the water balanced, and the proper time/concentration or CT value achieved before being reopened.
8. Establish a fecal accident log. Document each fecal accident by recording the following information:
 - a. Date

- b. Time of the event
 - c. Formed stool or diarrhea.
 - d. Free available chlorine concentration and pH at the time of observation of the event
 - e. Free available chlorine and pH before reopening the pool.
 - f. Contact time.
 - g. Procedures followed to respond to the fecal accident, including the process used to increase the free chlorine residual if necessary.
9. In the event of contamination with vomitus in a pool, the procedures for a “formed stool” (3A above) should be followed.

Notes:

- Fecal accident pool closure procedures are based on recommendations by the Centers for Disease Control and Prevention.
- All contact times assume a water temperature of 25°C (77°F).
- Theoretical Pool Closure Times for 99.9% Inactivation of Giardia Cysts by Free Available Chlorine, pH7.5, 25°C derived from the EPA’s Disinfection Profiling and Benchmarking Guidance Manual.
- The “short pool closure time” is the chlorine concentration/contact time theoretically required to inactivate Giardia cysts. The “long pool closure time” is the chlorine concentration/contact time theoretically required to inactivate Cryptosporidium oocysts.
- Non-chlorine disinfectants are not addressed and should not be used because there is limited pathogen inactivation data available for these compounds.
- The impact of chlorine stabilizers such as chlorinated isocyanurates on pathogen inactivation and disinfection measurement is unclear and warrants further investigation. Increased contact time may be desirable.
- Many conventional test kits cannot measure free available chlorine in a range that includes 20 mg/L. Use chlorine test strips, kits that can measure in this range or make dilutions using a standard DPD (N,N-diethyl-p-phenylenediamine) test kit and chlorine-free water. High levels of chlorine may damage pool equipment. Exercise caution or consult with an experienced aquatic professional.