

# POOL NEWSLETTER

APRIL 2015

## DAILY TESTING REQUIREMENTS

Spring has sprung, and pool season is right around the corner! Is your staff aware that it is required by law that your pool and spa water quality be tested **EACH DAY** prior to opening to the public? Yes, it's true! Spa temperature must also be tested daily. This needs to be done *before* opening your pool to let people swim.

Testing at least once per day is a minimum requirement. Depending on a variety of factors, you may find that it is necessary to conduct these tests more frequently. For example, hot tubs with a high bather load may need to be tested at least once per hour to ensure proper disinfection and pH levels.

Other testing requirements include a weekly alkalinity test and a cyanuric acid test (for pools using a stabilized chlorine as a sanitizer). Also, keep a log sheet of your readings and any adjustments you have made to the water (i.e. adding chemicals, back flushing etc.).

On a weekly basis you must test for:

- Alkalinity
- Cyanuric acid if present in your pool/spa

Other items you would want to record are:

- Chemicals or fresh water added
- Mechanical failures (pump, feeders, etc.)
- Gross contamination (vomit, feces, etc.)
- Backwashing
- Other activities pertaining to the pool/spa

Records must be kept for three years. You **must** notify the Health District should a drowning, near drowning or serious injury/illness occur at your facility. The Health District must also be notified of any incident creating a potential problem of health or safety significance (i.e. chlorine, gas leak, fire, etc.)

## POOL CHEMISTRY OR SAFETY VIOLATIONS

In 2014 pools or spas were closed 31 times for pool chemistry or safety violations. The Health District closes pools/spas due to imminent health hazards. Pool safety and proper chemistry are large concerns for our department.

The top five violations in 2014 were:

- 30 violations for "Disinfection level very low – closure"
- 18 violations for "Disinfection level low – below minimum"
- 17 violations for "pH low - below minimum"
- 18 violations for "Gates/doors are not self-closing"
- 18 violations for "self-latching mechanism is not adequate"



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# PRE-OPENING CHECKLIST FOR POOLS AND SPAS

## 1. Barriers (changes require plan review)

- Fences intact and at proper height
- Gates in working condition and self-closing
- Latches self-latching

## 2. Walking Surfaces

- Surfaces clean and in good repair
- Proper drainage
- Deck in good condition (no trip hazards)
- Lighting minimum 10 foot candles (if used after dusk)

## 3. Emergency/Safety Equipment

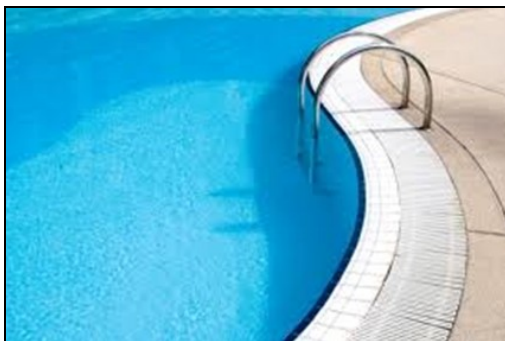
- Phone provided and operable (make test call)
- Throwing ring or similar device with attached rope available and easily accessible
- Reaching pole with shepherd's hook available and easily accessible
- 16 Unit First Aid Kit
- One blanket
- Backboard (if Lifeguard present)
- Emergency shut off switch and alarm with working audible alarm (test and document)

## 4. Water Quality

- Fresh chemicals for test kit
- pH 7.2—8.0
- Disinfection level proper
- Water clarity good (clearly see main drain and pool bottom)
- Spa temperature less than 104° F
- Cyanuric Acid (if using stabilized chlorine) at a or below 90 ppm
- Total alkalinity tested at least weekly

## 5. Physical Components

- Main drain grates in good condition and properly secured
- Weirs (flaps or floating) properly placed in skimmers
- Handrails secure



- Diving boards (mounting hardware and steps) in good repair
- Stair treads visible with appropriate contrasting color present
- Depth markings visible on deck and pool sidewalls
- Smooth sides, no rough edges, no protrusions
- Float or marking line in place at drop off
- Pool/Spa surfaces clean
- Skimmer baskets clean, in place and provided as required

## 6. Signage/Notification of Users

- Most current rules sign posted
- Location of emergency phone and First Aid kit on sign
- Annual notification of pool/spa rules for users

## 7. Equipment and Equipment Room

- Pumps and filters working
- Flow meter working
- Spare filter for each cartridge filter

## 8. Locker Rooms and Restrooms

- Properly maintained and operating
- Shower temperature 90-120°F
- Toilet paper available
- Soap available at sinks

## 9. Lifeguarded Facilities

- Lifeguards and attendants have current First Aid, CPR, and Lifeguard certifications
- Properly stationed to allow 30-second response time
- Lifeguard response drills planned

## 10. Miscellaneous

- KPHD permits current and fee paid
- Check past inspection reports for violations requiring corrections
- Pool/Spa chemical testing logs available

## DISINFECTANT LEVEL STANDARDS (in ppm)

SWIMMING POOL	MINIMUM	MAXIMUM
Chlorine	1.5	10
Chlorine w/Cyanurate Compound	2.0	10
Bromine	2.5	10
SPA & WADING POOL	MINIMUM	MAXIMUM
Chlorine	3.0	10
Chlorine w/Cyanurate Compound	3.5	10
Bromine	4.0	10



Combined Chlorine concentration must not exceed 50% of Free Chlorine concentration.

ALL POOLS & SPAS	MINIMUM	MAXIMUM
pH	7.2	8.0
Alkalinity Recommended Range	80 ppm (plaster pools) 100 ppm (painted and others)	120 ppm (plaster pools) 150 ppm (painted and others)
Hardness	100 ppm	300 ppm



### What type of test kit is required?

A test kit that accurately measures free and combined chlorine, pH, alkalinity, cyanuric acid (when used) and any other chemicals used in the pool. Test strips and OTO test kits do not meet the requirements.

### What other records am I required to keep?

- All chemical additives (type and amount)
- Maintenance activities
- Injury and illness reports/drowning and near drowning
- Any incident of visible pool water contamination (including feces, blood or vomit)

*Records must be kept for three years and be available for inspection. The Health District must be notified within 48 hours of any serious injury, illness, drowning or near drowning.*

### How often am I required to test?

As often as necessary to maintain proper water quality but at a minimum:

- Once per day for:
  - ◇ Free chlorine, combined chlorine and pH
  - ◇ Spa water temperature when above 95°F (not to exceed 104°F)
  - ◇ Flow rate
- Once per week for:
  - ◇ Total alkalinity
  - ◇ Cyanuric acid if using stabilized chlorine the level must not exceed 90 ppm)

## WHAT NOT TO DO WHEN THE WATER'S NOT CLEAR

A safe pool has proper water quality and good water clarity. If it is difficult to see the pool bottom, take action right away!

**Immediately close the pool if you cannot see the bottom. If you cannot see the pool bottom you cannot see a person either.**

Turbid water is caused by a variety of factors, but experts say it all boils down to trouble from water chemistry, the filtration system or hydraulics. Sometimes it's a combination of the three.



A problem with pool water chemistry is probably the leading cause of turbid water. A loss of chlorine can contribute to cloudy water. Keep in mind that chlorine's effectiveness can be impacted by too much stabilizer (cyanic acid) in the pool. Such conditions prolong the time it takes to kill organisms, which can lead to haziness. Total alkalinity and pH also play a big role in water turbidity. While chlorine can be the key, keeping the water balanced is the focal point.

Another culprit in the battle against turbid water frequently is the pool's filtration system. If you suspect a problem, make sure all the valves are in the proper position and check the flow. If water passes through the filter media at a different rate than approved by the manufacture, debris can slip by. Use industry formulas to determine the proper filter size and see if it matches the one that has been installed. Note that if the filter is not being backwashed properly, small particulates can find their way into the filter bed and be carried back to the pool.

Here are some tips that pool operators can undertake on their own if they see 'cloudy' water:

- Limit the bather loads or close the pool entirely. This will allow the system to 'catch up,' so the chemicals can do their work. This is especially useful in commercial pools.
- If the flow rate is too high, throttle back on the pressure-side valve and let less water through.
- Keep pool deck clear of debris and dirt. Remove visible debris daily and routinely brush and vacuum pool.

Like anything else, an ounce of prevention is worth a pound of cure. It's a good idea to be proactive and try to anticipate problems before they happen. Prevent accidents by monitoring water clarity in your pool. Remember in Washington State, a pool facility must close the pool when the pool bottom and sidewalls cannot be clearly seen.

## POOL PROGRAM STAFF

Don't hesitate to contact the Health District with any questions. To reach an inspector, please call (360) 337-5235 or dial direct:

- Jim Zimny, Program Manager ..... 337-5623
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