

# Clark County Public Health

## Pool and Spa

## Operations Guide

2015

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### Operating Permit

Any person operating a water recreation facility (pool, wading pool, spray pool, or spa) needs a current permit issued by Clark County Public Health (CCPH) pursuant to WAC 246-260-101. The permit is valid for one year and is subject to annual renewal. Refer to the environmental health fees schedule located at [clark.wa.gov](http://clark.wa.gov) for current operating fees.

### Surveillance

Owners and operators of water recreation facilities shall permit a representative of CCPH to perform inspections as necessary to ensure compliance with standards pursuant to WAC 246-260-171 and 246-260-181.

### Limited versus General Use Pools

Different types of facilities have different requirements. Limited use facilities include any swimming, spa, wading, or spray pool at an apartment, assisted living facility, condominium, fraternity, home owners association, hotel, mobile home park, motel, recreational vehicle park, sorority, or rental housing unit for use of residents and their guests. General use pools are all pools that do not meet the definition of a limited pool. If an organized program occurs at a limited use pool (such as swimming lessons), the pool will be considered general use for the duration of the activity and has to meet requirements of a general use pool.

### Water Quality Standards

Operators need to maintain safe water quality at all times pursuant to WAC 246-260-999. See Water Quality Standards for Pool/Spa/Wading Pools on the following page.

# Water Quality Standards for Pools and Spas

WAC 246-260 and 246-262

## Required Disinfectant Levels

Type of Disinfectant	Minimum	Maximum**
<b>Swimming Pool</b>		
Chlorine*	1.5	10.0
Chlorine with Cyanurate Compound	2.0	10.0
Bromine	2.5	10.0
<b>Spa and Wading Pool</b>		
Chlorine	3.0	10.0
Chlorine with Cyanurate Compound	3.5	10.0
Bromine	4.0	10.0

\* Chlorine is measured as free available chlorine residual

\*\* The maximum disinfectant level shall conform to manufacturers' recommendations and not exceed 10 ppm.

## Required Ranges for Selected Chemical and Physical Water Quality Constituents

Chemical/Physical	Minimum	Maximum
pH	7.2	8.0
Temperature	-	104°F
Cyanuric Acid	-	90 ppm
Combined Chlorine	-	50% of Free Chlorine
Water Clarity	Main drain and pool bottom must be visible at all times	-

## Recommended Ranges for Selected Chemical and Physical Water Quality Constituents

Chemical/Physical	Minimum	Maximum
<b>Alkalinity</b>		
Plaster Pools	80 ppm	120 ppm
Painted, Vinyl, Fiberglass	100 ppm	150 ppm
<b>Calcium Hardness</b>		
Swimming Pool	200 ppm	400 ppm
Spa	150 ppm	250 ppm

## Spa/Spray Pool Reservoir Cleaning

Spa and recirculating spray pools must be routinely drained, cleaned, and refilled at a minimum using the following formula [WAC 246-260-131 (4)]:

Spa/spray pool volume ÷ 3 ÷ average number of users per day = number of days between draining, cleaning, and refilling.

Example: 500 gallon spa with 10 users per day would need to be drained, cleaned, and refilled **at least** once every 16 days.

## Monitoring, Reporting and Recordkeeping

Operators must report to CCPH any death, injury, or illness that occurs at the pool or spa. Any incident such as a gas chlorine leak must also be reported to the CCPH immediately.

Operators must perform routine tests to ensure safe water chemistry. The tests results must be recorded. The records must be kept on file for three (3) years and must be available upon request. It is recommended to use the CCPH log to ensure recordkeeping requirements are being followed.

Once Daily	Once Weekly	As Occurs
Free Chlorine	Alkalinity	Any chemicals added
Total Chlorine	Cyanuric Acid (if used)	Incidents of visible contamination (e.g., blood or fecal matter)
pH		
Temperature		
Flow Rate		
Water Clarity		

## Testing Equipment

Operators must use a test kit that tests for free chlorine with a range of 0.2 ppm to 10.0 ppm or higher. The titration test kits with DPD powder are required. The test kit must be able to test pH with a range of 7.0 to 8.0 or greater. Facilities using stabilized chlorine must provide cyanuric acid testers with a range of 10 ppm to 100 ppm. The test kit must be able to test alkalinity with a range of 0 to 300 ppm. The above are pursuant to WAC 246-260-999.

## **Swimming, Wading, and Spa Pool Design and Construction**

Prior to construction or alteration of a pool or spa, a plan must be submitted to CCPH for review (WAC 246-260-021). Location, materials to be used, walking surfaces, fencing, and other barriers, appurtenances, pool surfaces, floors and walls, etc., must conform with WAC 246-260- 041 (pools) and 246-260-051 (spas).

### **Barriers**

As of June 1, 2008, all water recreation facilities were required to have barriers that meet code requirements. Barriers may not be grandfathered in based on the date the barriers were built or installed. Limited use pools are required to have barriers that are at least 60 inches high (72 inches for general use pools). All barriers must prevent the passage of a four-inch diameter sphere and may not have any indentations or protrusions that could act as a step. All gates and doors leading into the recreational water area must be self-closing and self-latching with handles 60 inches off the ground or have a keyed lock.

### **Walking Surfaces**

Walking surfaces shall be four or more feet wide, slope away from the pool and have sufficient drainage. Surfaces must have a nonslip, impervious, and cleanable finish.

### **Inlets and Outlets**

As of June 1, 2008, all water recreation facilities with only one main drain must have either installed a second drain three feet apart and ensure hydraulic balance or provide additional entrapment prevention measures. Unblockable drains are required to have a secondary entrapment prevention measure.

Pool and spa inlets and outlets must conform with WAC 246-260-031(7,8). Main drain covers are to be checked often to make certain they are secure. Loose or broken drain covers must be replaced immediately.

Overflow (skimmer or gutter) systems must maintain at least 60% of the flow through the filter recirculation at all times. Skimmer systems must have weirs with automatically adjustable gates to provide continuous skimming action. The flow in pools and spas must not exceed that which is designated in 246-260-031 (8).

## **Pool Appurtenances**

Owners shall ensure all handrails, hand holds, step risers, stairs, ladders and step holes are properly spaced, marked, secured and maintained [WAC 246-260-031 (11)].

## **Depth Markings**

The pool depth must be marked on both the vertical and horizontal surfaces of the pool. The deck markings must be at least 4" high and the vertical pool wall markings at least 2" high, and they must indicate "feet" after each number (WAC 246-260-041(8)).

A safety line (floats) or marking line (on the bottom and sides of pool) must be placed at that area where a uniform slope changes to a deeper area of the pool. This must be installed according to WAC 246-260-041(9).

## **Turnover Rate**

For swimming pools, the water volume must be returned through the filter/disinfection system every six hours or less (WAC 246-260-041(7)).

Example: a 20,000 gallon pool needs a flow of 55 gallons per minute or more.

For spa pools, the turnover rate shall be between 10 to 30 minutes depending on the volume and number of bathers. See WAC 246-260-051(4). Example: a 750 gallon spa needs a flow of 25 gallons per minute to provide a turnover every 30 minutes.

For wading pools, the turnover rate must be three hours or less. If on the same recirculation system as a swimming pool, turnover rate for the system must meet wading pool requirements.

## **Pump Room, Chemicals, and Water Source**

Equipment requirements, placement order, and water source requirements are discussed in WAC 246-260-031(9-18). Equipment rooms must be kept locked when not in active use.

## **Water Source**

Water source must conform to WAC 246-290. The recirculation piping of a spa pool shall not inter-mix with any companion swimming pool water. Water shall not be cross connected.

## **General**

Pumps must be maintained to ensure adequate capacity to provide design flow for the entire operating and backwash cycle. Strainers must be provided before the filters and maintained. Valves must be provided to allow isolation and maintenance of equipment. Adequate space is required (at least 3 feet is recommended) between equipment to allow maintenance. Filters must meet the type and rates as indicated in WAC 246-260-031(16). A pressure gauge needs to be installed preceding the filter and one following the filter. A flow meter must be installed on the pipe that returns to the pool. For best results, install the flow meter after the filter on a straight section of pipe as far from any elbows as possible. Ventilation must be adequate to prevent moisture build-up in indoor areas.

## **Disinfection Equipment**

Operators shall provide a continuous and effective disinfectant residual. Erosion feeders are adequate only if the disinfection levels are checked several times a day. Hand feeding is allowed on an emergency basis only. Solid tablets or granules shall not be placed in skimmer baskets accessible to the public. Operators must conform to these and other sections in WAC 246-260-031 (17).

## **pH Control Equipment**

A pH control feeder is required for pools larger than 50,000 gallons and spas larger than 10,000 gallons.

## **Chemical Storage**

Chlorine and other chemicals should be stored in a separate room or area. All the chemicals should be stored up off the floor. Acids should be stored as far from bases (soda ash) as possible. Liquids should be stored below solids (including powders and other granular substances). Organic chlorine (such as tri-chlor tablets) should never be mixed with inorganic (such as calcium hypochlorite), and their containers should not be used for other purposes (WAC 246-260-031(14)).

## **Restroom, Locker Rooms, Diaper Changing Stations, and Plumbing Fixtures**

To be in compliance with WAC 246-215, all limited use facilities should provide showers, sinks, toilets and/or dressing rooms if the distance to the nearest living units or rooms is greater than the distances indicated in WAC 246-260-031(21). All general use swimming pools must provide showers, dressing rooms, toilets, lavatories and hose bibs and conform to WAC 246-260-031 (21). Shower facilities must deliver water temperature at a range of 90° to 120° F. and provide single service soap in non-glass dispensers.

Facilities that have been remodeled or updated post June 1, 2008 must provide a diaper changing station that is accessible to all bathers and conform to WAC 246-260-031(22).

## **Emergency Equipment**

All swimming pool operators must provide a standard 16-unit first-aid kit and a blanket for emergency use and room to accommodate persons requiring first aid. A telephone is required within one-minute access. (WAC 246-260-041(11))

Non-lifeguarded pools need to provide a solid reaching pole (at least 12 feet long) with a double crook life hook and a throwing ring buoy with attached rope that measures at minimum the width of the pool.

General use swimming pools with a lifeguard need to provide a rescue tube or rescue buoy at each lifeguard station and a backboard with means to secure a victim to a board and immobilize head, neck, and back.

## **Control of Bathers**

It is the responsibility of facility owners and operators to ensure bathers are notified of the terms of use and to enforce those terms as necessary.

## **Personnel (Lifeguards, Attendants) Duties**

Lifeguards or attendants must wear a distinguishing suit, uniform, or emblem and must be equipped with a whistle or a signaling device. Lifeguards must maintain current certificates from one of the approved agencies indicated in WAC 246-260-99901.

## Signage

Swimming pool operators shall provide a sign in a conspicuous location that communicates the following messages for limited use pools, general use pools, wading pools, and spas:

1. Prohibits running or horseplay
2. Prohibits use by persons with communicable diseases or anyone ill with vomiting or diarrhea within the last two weeks
3. Prohibits use by persons under the influence of alcohol or drugs
4. Requires a cleansing shower before entering the pool
5. Warns that persons refusing to obey the regulations are subject to removal from the premises
6. Prohibits food or drink in the pool water
7. Requires anyone in diapers wear protective clothing to prevent contamination
8. Requires diapers to be changed at designated diaper changing areas
9. Warns patrons that anyone refusing to obey the rules is subject to removal from the premises
10. Directs patrons to the location of the nearest telephone and first-aid kit for emergency use
11. Advises patrons that anyone with seizure, heart, or circulatory problems should swim with a buddy

For facilities that do not have a lifeguard or attendant present, the following messages must also be communicated:

1. When pool is used by children twelve years of age or under, a responsible adult eighteen years old or older shall accompany the children and be at the pool or pool deck at all times the children use the facility
2. When the pool is used by persons thirteen to seventeen years old, a minimum of two people must be at the pool facility at all times the pool is in use

For spa pools, the following messages must also be communicated:

1. No child six years old or younger may use a spa pool
2. All persons should limit the stay in the spa pool to fifteen (15) minutes at any one session
3. Persons suffering from heart disease, diabetes, or high blood pressure should consult a physician before spa use
4. Women who are or may be pregnant should seek the advice of a physician regarding spa use and limit their time in the pool
5. The maximum bathing capacity of the spa pool must be posted

## Bather Loads

To determine the appropriate bather load for your recreational water facility, refer to the following chart.

Indoor Pool	Outdoor Pool	Spa	Wading Pool
Surface area of shallow/25 + Surface area of deep/30	Surface area of shallow/15 + Surface area of deep/30	Total surface area ÷ 4	Total surface area ÷ 7
Note: round the number down to determine safe bather load			
Refer to WAC 246-260-041(10), 246-260-051(3) and 246-260-071(6).			

## Food Service and Drinking Fountains

Food and beverages are prohibited in the water. Any tables and chairs must be four feet from the pool edge. Glass must not be used in pool facilities. For general use pools, a separate enclosure for food and beverage consumption must be provided. The sale or consumption of alcohol is prohibited at general use pools. Drinking fountains are required at general use swimming pools per WAC 246-260-031 (21b).

## Operation Plan

1. Owners shall provide an operation plan.
2. Owners shall provide routine checks of the physical components as per WAC 246-260-131.
3. Lifeguards are required at all general use swimming pools. Additional requirements are outlined in WAC 246-260-131 (6).
4. Private club owners shall require lifeguards at all times persons sixteen and under are using the pool. Additional requirements are outlined in WAC 246-260-131(6)(b)(iv).
5. Owners shall provide the necessary training for lifeguards as indicated in WAC 246-260-131 (8).
6. Owners shall ensure emergency response provisions. See WAC 246-260-131 (9).
7. Owners shall establish rules of conduct for facility users to ensure health and safety per WAC 246-260-131 (5).
8. Operators shall monitor weather conditions and close the facility for electrical storms and possibly other factors such as wind, fog, etc., per WAC 246-260-131(10).
9. Operators shall close the facility or portion of facility when it presents an

unhealthful, unsafe, or unsanitary condition. These conditions include lack of compliance with water quality or operation requirements as detailed under WAC 246-260-111; 246-260-131.

## **Substitution**

CCPH will permit substitutions of equipment, facilities, or procedures required by Chapter 246-260 WAC when, in the sole determination of the Health Department, data and/or research provide sufficient evidence that such substitution is equivalent to the requirement and will adequately provide for the protection of the public health and safety of persons using the facility.

## **Enforcement**

Details of enforcement actions such as orders, suspension, and revocation of license are found in WAC 246-260-211.

CCPH (a) shall enforce Chapter 246-260 WAC rules; or (b) may refer cases to the local prosecutor's office or the office of the Attorney General, as appropriate.

Enforcement actions may include any one or a combination of the following:

- A. Informal administrative conferences to explore facts and resolve problems, convened at the request of the health department or the owner;
- B. Orders directed to the water recreation facility owner and/or operator and/or person causing or responsible for the violation of the chapter 246-260 wac rules;
- C. Imposition of civil penalties of up to \$500 per violation per day as authorized under rcw 70.90.200;
- D. Denial, suspension, or revocation of operating permits; and
- E. Civil or criminal action initiated by the local prosecutor's office or by the office of the attorney general.

## **Hearings**

A person aggrieved by CCPH's denial, suspension, or revocation of any permit may request an administrative hearing. Also, a person aggrieved by CCPH's application of civil penalties may request an administrative hearing. Such hearing shall be governed by CCPH's rules for hearings. Owners are responsible for obtaining a construction permit from CCPH as per WAC 246-260-021.