



# Pool Pages

## Pool and Spa Operator Required Knowledge and Skills under State Law

Under Chapter 246-260 of the Washington Administrative Code (WAC), all permitted water recreation facilities (swimming, wading, spray and spa pools) must have a “Water Treatment Operator”. A “Water Treatment Operator” must have the following knowledge and skills:

1. Know and be able to operate and maintain the water recreation facility’s pump(s), continuous disinfectant feed, filter, heater and other mechanical equipment;
2. Know how to use a water recreation facility test kit and other testing equipment acceptable under Chapter 246-260 WAC;
3. Perform water quality testing/monitoring;
4. Record the testing/monitoring results;
5. Know what chemicals (and be able to determine what amounts thereof) or the actions to take, and take action when appropriate, to adjust the water quality to proper operating/use levels; and
6. Know and routinely verify that other components of a water recreation facility critical to the health and safety of users and the public are maintained. (By inference, you must be aware of what’s required under Chapter 246-260 WAC and at least be

knowledgeable of what is a critical violation as noted on the back of the water recreation facility report form.)

**If the Water Treatment Operator does not have the skills to do their duties, the owner is responsible for ensuring that the Water Treatment Operator has the training and certification necessary to do their duties.** [See Chapter 246-260 WAC in general, and WAC 246-260-010 (3), “Owner” and “Water Treatment Operator” and WAC 246-260-131 sections (6a & g), (7a) & (8a) in particular.]

Unfortunately, the one day workshop sponsored by the Washington State Environmental Health Association and presented by Washington State Department of Health, Industry and local health jurisdictions on the east and west sides of the State will not occur this year.

You may wish to check with pool/spa chemical suppliers, pool/spa industry companies and larger Counties or Health Districts (King, Pierce, Spokane Regional Health District) since many of them offer a similar one day workshop.

## Annual Operating Permit and Re-inspection Fees

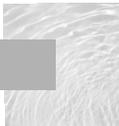
As you may recall, the annual operating permit fee increased significantly two years ago because we no longer have a General Fund allocation to cover a significant portion of the costs of the pool/spa program. The program’s budget is based on both administrative costs and direct program activity costs such as routine inspections and a small number of complaint investigations and technical and regulatory training/education requests/needs. In general, the annual operating permit fees should cover the cost of these routine activities. The Washington Administrative Code requires that owners monitor the

conditions of pools/spas and to close them to use if they are in an unsafe, unhealthy or unsanitary condition. In an ideal world, we would never find a pool or spa open when it is out of compliance. In the less than ideal world, we would find a small percentage open but only a little out of compliance due to use or “the situation”. In the real world, most of the pools/spas fall into one of these two categories. However, we occasionally find a pool/spa that is significantly out of compliance or is repeatedly allowed to be used by owners or operators when out of compliance. Additional time, effort and resources

are expended on these facilities. The cost needs to be recovered in a fair and equitable way. Therefore, the fee schedule includes a re-inspection fee that we charge to the facility requiring this additional work and effort.

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## What is the Thurston County Pool/Spa Operator’s Certification Program ?

Participation in this Thurston County Program is voluntary. One of the benefits in participating is a 40-50% reduction in the Pool/Spa Annual Operating Permit fees. Therefore many owners encourage their pool and spa operators to participate in this Program. Taking a course such as the one offered by the National Swimming Pool Foundation (NSPF), an intensive two-day course, and passing the course test is the first of two major steps to participate in this program. Note: other courses that are equivalent to the NSPF training course offered by another organization may be acceptable, **but check with us before taking the course**. The second major step is to undergo a probationary period for a minimum of three months. **Note: generally we do not start the probationary period until the month after we receive a copy of your CPO certificate**. During the probationary period, you must demonstrate that you can apply your training and operate the pool/spa responsibly and according to the rules and regulations, including completing and submitting a monthly facility self-inspection report to us. Once you have successfully completed your probationary period, you must continue to operate the pool/spa responsibly and complete and submit a monthly facility self-inspection report in a timely manner. For more information, see Article VII of the Thurston County Sanitary Code. A list of Courses being offered in Western Washington over the next few months is provided. Additional course offerings may be found at the NSPF website: [www.nspf.org](http://www.nspf.org). Contact the instructor directly for a registration form and information, preferably at least three (3) weeks in advance of the class.

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<u>Vancouver</u> Phil Oaks	May 10 & 11 (360)241-7665	<a href="mailto:Propools@comcast.net">Propools@comcast.net</a>
<u>Bellevue</u> Michael Dilley	June 7 & 8 (425)641-2995	<a href="mailto:mikedilley@comcast.net">mikedilley@comcast.net</a>

It is your responsibility to provide us with your CPO Certificate in order to begin the CPO Probationary Period.

## Pool/spa chemical storage and disposal—is it a problem and how big is it?

As you are well aware, some of the chemicals used to adjust water quality in pools and spas are potentially dangerous, especially if they are not properly stored, used or disposed. Luckily, the Thurston County Health Department has a resource to assist you with the safe management of hazardous waste and chemical products. Since the early 1990’s, the Solid and Hazardous Waste Section has assisted hundreds of local businesses with low-cost disposal options for accumulated waste and expired chemical products. In addition, they may be able to assist you in ad-

ressing some of your storage questions beyond the “don’t store the acids with the bases” discussion we may have had during routine inspections. Brad Zulewski and Nicky Upson of the Hazardous Waste Section will be working with me and you over the next few months. As the headline indicates, we are not sure if there is a problem or how big it may be. Our plan is to start out by making appointments to meet with a few of you one-on-one at your facility to gain an understanding of current practices and to discuss your potential needs, if any. In the future, Brad or

Nicky may call you to make an appointment without me. I hope Brad or Nicky will be able to visit every facility by the end of the year. Over the years I have heard, after their interaction with various parties (my dentist, various dry cleaners, a number of school facility workers, etc.), that these co-workers of mine in the Hazardous Waste Section were good to work with and very helpful. I hope you find them as helpful as I have over the years as well.

## As the Summer Pool Season Approaches...

Whether you have a year-round or seasonal, indoor or outdoor pool, Memorial Day seems to mark the beginning of the “busy season”. Pool use increases because it is summer-time and the livin’ is easy....except for pool operators. Here is a partial pre-opening checklist to use to get ready for “the rush” and help make the livin’ a little easier for you. Opening is usually *not* as simple as pulling the cover off and adding a little water.

- You may need a commercial pump to remove excess water and debris that have collected on the cover over the winter. Keep these out of the pool unless you like to create a lot of additional work for yourself.
- Clean, treat and repair your pool cover before rolling or folding it for storage.
- Where are your surface brushes and vacuum cleaner parts? Are they in good enough shape to last the season?
- When filling the pool, it is best to open the water line valve only 1/2 to 3/4. This reduces the chance of rust or other particles from being flushed from the main water line into your pool.
- Plugs may need to be removed from skimmers and recirculation inlets and outlets.
- Wiers, skimmer baskets and all their associated parts should be checked.
- Filters....is it time to change the sand in your sand filter and check the condition of the parts located in/under the sand? DE Filter... check the elements for holes or tears, then backwash and apply new Diatomaceous Earth. If you have a cartridge filter, check the integrity of the cartridge. *You are required to have a second set of filter cartridges on-site.*
- Clean and fire up the heater.
- Clean and fill the chlorinator. Check the valve and tubing for blockage or leaks.
- Flow meters and pressure gauges clog easily and may need repeated cleaning.
- Check the entire system for leaks.
- Once the water becomes clear and has circulated for 24 hours, begin testing and balancing the water quality. Remember to do the total alkalinity first, and yes, water temperature does matter.
- Check barriers and gates (self closing and self latching).
- Is the 911 emergency phone still operable?
- Check your test kit. Is it complete and usable? Are your reagents fresh?
- Do you have log sheets to record your daily testing and maintenance activities?
- Are the drain grates still in place and secure?
- Locate the reaching pole (with double hook) and ring buoy (with rope attached).
- Are all your signs intact, readable, **current** and up to code?
- Check your first aid kit and restock as necessary.
- Call Thurston County Environmental Health if you are new to the facility.

## Got the Erosion Disinfectant Feeder Blues?

This article is directed towards operators with chemical tablet erosion disinfectant feeders.

First, what does Chapter 246-260 of the Washington Administrative Code require? See WAC 246-260-031 (17a), <http://www.doh.wa.gov/ehp/wr/wac246-260>

To summarize, the disinfection equipment:

- 1) must provide a continuous and effective disinfectant residual;
- 2) have a design feed rate to provide effective disinfection levels for peak demand conditions; and
- 3) conform to NSF Standard 50 if the disinfectant chemical is other than chlorine gas.

Second, let’s take a look at the installation instructions available on the websites of the companies for two of the more popular tablet erosion disinfectant feeders in this County, the Hayward CL-220 and the Rainbow Lifegard 300-29X.

**How many of you have a flow rate indicator installed on the ¼ or ½ inch diameter flexible tube leading to the erosion feeder?** (Note: this is different than the circulation system’s flowmeter) *If you don’t and you have one of the above disinfectant feeders, it doesn’t conform to NSF Standard 50!*

- Underneath the parts list and the “exploded” diagram of the CL-220, it states: “To be N.S.F. Listed, a flow rate indicator must be installed on chlorinator inlet line.”

- On the page of the parts list and the “exploded” diagram of the Lifegard 300-29X, it states: “NSF listed for public or residential use in Swimming Pools, Spas or Hot Tubs using Tri-Chlor or Bromine and when used with a flow indicating device such as Rainbow Lifegard [kit] Model # R17267.” Oh, and in one of the “exploded” diagrams of the Lifegard 330-29X, it states: “If flow indicator is used, a drain kit is required. (see Insert above optional drain kit)”.

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## Got the Erosion Disinfectant Feeder Blues? (continued)

Yes, you need to order two additional pieces of equipment or make sure they are provided for this one to conform to NSF Standard 50.

**Should I fill up the feeder cylinder or just place 1-3 tablets in at a time?** *It may depend upon which feeder you have.*

- The first paragraph of the installation and operating instructions for the CL-220 states: “By regulating the valve setting between FULL (more chlorine) and OFF (less chlorine) [notice it states “less chlorine”, not “no chlorine”] and the amount of Tri-Chlor tablets you place in the feeder, you can easily adjust the chlorine feed rate that is necessary to maintain the proper chlorine residual for your pool.”

- In the Startup instructions section for the Lifeguard 300-29X, step # 2 states: “Remove cap of feeder and fill with Tri-Chlor or Bromine tablets.”

**Is it better to use 3 inch or 1 inch diameter Tri-Chlor tablets?** *Care to guess?*

- The CL-220 installation and operating instructions are silent on the issue.

- In the Startup instructions section for the Lifeguard 300-29X, step # 2 also states: “For maximum dispensal rate use 1 inch diameter tablets, 3 inch diameter tablets produce less than 40 % of 1 inch tablets.”

I haven’t and won’t touch on the other equipment components (e.g., check valves) and the variability introduced if they are not or are improperly installed at this time. As you can see just from a limited review of the installation instructions for these two erosion disinfectant feeders, it is important to obtain the installation and operating instructions, read them carefully, make sure you have all of the pieces or components necessary and make sure they are installed correctly.

Be aware that there is also variability in the tablets you receive, from the “expected” time-from-manufacture or storage time or conditions to the “built-in tolerances” of the manufacturing process itself or even between manufacturers. *This emphasizes the need for you to know how to use the test kit, its limitations and what ways to adjust your testing, if any, to compensate or overcome these variances by your performance – that’s why you are there.*

## Adding ultraviolet (UV) light treatment to your pool water treatment system -Would it be beneficial? Preliminary information indicates YES!

No one disinfectant has been found to treat all disease-causing organisms associated with pool and spa water. Chlorine and Bromine are effective against bacteria and many viruses, but not against protozoa such as *Cryptosporidium*. *Cryptosporidium* has been the cause of the majority of disease out-

breaks associated with pools over the last decade. Ultraviolet (UV) light has been found to be effective against bacteria and only a few viruses, but is effective against protozoa. Preliminary laboratory studies have indicated that when you combine UV treatment of water with a chlorine residual at the

levels found in pool water, the effectiveness of both treatments are not reduced and do not counteract each other. There is some evidence that they actually enhance each other’s effectiveness when compared to the results when each is used alone. Further studies are underway.



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