Spas and Hot Tubs

- Spas and hot tubs **ARE NOT** little swimming pools!
- 2 people in a 600 gallon spa are equivalent to 200 people in a 20' x 40' swimming pool.
- Wood interior surfaces **ARE NOT** allowed in commercial or limited-commercial use in Oregon.
- Spa and hot tubs present major and unique water chemistry problems.
- Higher water temperatures, aeration, and body oils significantly decrease Chlorine effectiveness. Chlorine loss may occur as much as 4 times as fast in hot agitated water as in ambient swimming pool water (spas may use 60 ppm Free Chlorine per day or 1 lb. Chlorine per 1000 gallons a day).
- Public spa water must be drained and refilled **at least once per month.**
- Spa temperatures should never exceed 104° F.
- Pregnant women should not use spas set at temperatures above 100° F. and usage should be limited to 15 minutes or less. Higher temperatures and/or usage for more than 15 minutes may result in damage to the fetus.
- People suffering from heart disease, diabetes, high or low blood pressure should not use the spa without prior medical consultation and permission from their doctor.
- Never use a spa while under the influence of alcohol, anticoagulates, antihistamines, vasoconstrictors, vasodilators, stimulants, hypnotics or tranquilizers.
- Avoid prolonged exposure in a spa, as it may cause nausea, drowsiness or fainting.
- Never use the spa alone.
- Spa pools should be superchlorinated to breakpoint daily. When superchlorinating spas, use Sodium Dichlor Chlorine.
- Because of the small water volumes involved with spas and hot tubs, it is much simpler and less expensive to drain the water than to adjust the water chemistry with chemical additions.

Cleaning Cartridge Filters

Thorough cleansing of cartridge filters is important for adequate filtration, especially with spas.

3-Step Cleaning

1. Thoroughly wash down filter cartridge with a high-pressure nozzle on a garden hose. Do not clean with a brush. The brush can imbed the dirt more deeply or even puncture the filter element.
2. Soak the cartridge in strong detergent (i.e., Trisodium Phosphate of Cascade) for an hour or more. Solution should contain 1 cup of detergent per 5 gallons of water. Thoroughly rinse the cartridge after soaking.
3. Test the cartridge for mineral build-up. Apply a few drops of Muriatic Acid to the cartridge element. If it starts to foam, assume the acid is dissolving minerals that plug the filter, then soak the cartridge

in a 10-20% acid solution, leave cartridge in the solution 2-4 hours (prepare solution by adding 2-4 cups of Muriatic Acid to 5 gallons of water in a plastic container). **CAUTION:** Do not allow the acid solution to spill where it will do damage. Do not allow acid to be splashed near or about the head and face. If acid should come in contact with the eyes, thoroughly rinse the eye with large quantities of water for 15 minutes and see a physician immediately. To minimize potential problems, always add acid to the water, **NOT** water to acid. Wear rubber gloves when working with acid.

Test Kits

A good test kit should test for:

1. Free Chlorine and total chlorine by utilizing DPD Tablets (Diethyl-P-Phenylednediamine) #1 and #3 with a scale from 0 to 5.0 ppm
2. pH
3. Acid Demand
4. Base Demand
5. Total Alkalinity
6. Calcium Hardness
7. Cyanuric Acid

When using your test kit:

1. Rinse the test wells with pool water.
2. Take water samples at elbow depth.
3. Use correct water level in test wells.
4. Use correct amounts of reagents.
5. Conduct test in a well-lighted area.