## **Hot Tub Decontamination Procedure**

This procedure is intended to describe how to decontaminate a spa infested with both bacteria and bacterial by-products. Some signs of possible infestation include: slime formation, cloudy water, musty odors, fecal contamination, bather rashes (a rash may take up to 7 days to develop), or flu-like symptoms suspected to have originated from spa use. If the user/operator of the spa suspects infestation, this procedure should be followed as a precaution. If the spa water has become infested with bacteria, the plumbing system and filter may be harboring excessive amounts of bacteria and bacterial by-products. Replacing the spa water at regular intervals is a good practice. However, water replacement will not completely eliminate the bacteria from a severely infested spa. The spa and its circulation systems and airlines should be thoroughly decontaminated. This procedure should be used to decontaminate an infested spa. It may also be used as a general maintenance step when a spa is drained.

- 1. Remove the filter cartridge and either clean or replace it. To clean a cartridge, first rinse out any debris and use a filter cleaner per label directions. After rinsing the cartridge, completely submerge the cartridge in a 1/10 dilution of sodium hypochlorite (liquid bleach) from one to four hours. This will kill any bacteria embedded in the filter media.
- 2. Raise the water level in the spa to ½ inch above the high water mark.
- 3. Add at least 100 ppm chlorine to the spa. (30 fluid ounces of 8.25% sodium hypochlorite {household bleach} per 100 gallons)
- 4. Clean the underside of spa cover with a solution of distilled white vinegar and water (50/50 mix)
- 5. Circulate the water at a maximum rate for at least 1 hour and ensure the jets are on high speed. If your spa has diverter valves make sure to cycle through all of the settings. (Bullfrog Spas do not have diverter valves)
- 6. While the water is circulating, make sure all air controls are open. (Bullfrog Spas do not have air controls)
- 7. Once the chlorine level has dropped below 10ppm, drain the hot tub. Use your test strips to determine the chlorine level. Running all of the jets on high speed with the cover open will help off-gas the chlorine. (High chlorine levels can kill grass and plants) While the spa is draining, rinse the sides several times.
- 8. Wipe down the inside of spa with a 50/50 mixture of distilled white vinegar and water.
- 9. Rinse and drain the spa to remove any excess water and cleaner.
- 10. Refill the spa with water; replace the filter with a cleaned, sanitized, or new filter cartridge.
- 11. Balance the water according to ANSI/NSPI standards.

Colorado Custom Spas recommends the use of a system flush periodically. This will help remove build-up from the plumbing which serves as a food source for bacteria and other contaminants.

We offer water care service that can be tailored to your specific needs, from once quarterly drain and cleans, to every other week full service water care. Call (303) HOT-TUBS for a quote.