



# **Sanitation and Safety of Your Lodging Operations Swimming Pools and Spas**

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# Treated Recreational Waters

- Swim Pools
- Wading Pools
- Whirlpools/Hot Tubs
- Most lodging facilities, country clubs, and city governments have treated body of water for recreational purposes

# Treated Recreational Water Concerns

- Concerns are:
  - physical safety of humans
  - sanitation and water quality
  - fiscal responsibility
- Security of facility
  - Screening of staff
  - Controls in place

# Trends recreational water use

- Exercise – ie. water aerobics, laps
- Entertainment – slides, boards, water parks
- Hotels are installing indoor water parks or theme pools and using as revenue source
- What is the future of diving boards? Safety risks presented and insurance carrier may suggest elimination
- Use of tunnel slides rather than open
- Security of premises

## Guest satisfaction versus Safety

- Controlled access (fence/locks)
- Enforced hours to body of water
- Prohibit glass containers, alcohol or rough play
- Well lit areas ground and pool
- Available safety equipment
- Slip resistant surfaces on pool steps and edge
- Locker rooms with handwashing supplies
- Water depth clearly marked
- No diving, running or jumping
- Signs posted clearly marked; international signage
- Use of swim diapers
- Prohibit use by those with infectious diseases

## Two Examples



**No Running**

**NO GLASS  
ALLOWED IN  
POOL AREA**

# Recommendations Hot Tubs/Spas

- Signs posted to prohibit unsupervised children (set age)
- Limit exposure time
- Cautions to pregnant women & those heart disease
- Alcohol consumption prohibited
- Prohibit use by those with infectious diseases (internal and skin)
- Occupancy limits?
- Non-slip surfaces – steps and sides
- Shut off valve
- Water temperatures – max of 104° F

# Sanitation of Pools and Spas

- Will minimize risk of RWI (Recreational Water Illness)
- Bacteria of Staphylococci; fecal coliform; legionnaires; E. Coli O157:H7 are concerns
- Bacteria enter pool by poor personal hygiene or infections of users. People get sick through accidental swallowing
- Policies to minimize risk
  - swim diapers (research has studied effectiveness of brands)
  - water samples tested and documented every 4 hours (or state requirements)
  - Certified Pool Operator (CPO) on staff
  - Cleaning and sanitation practices

# CPO – NSPF certification

- NSPF is the National Swimming Pool Foundation
- This group offers certification for a Certified Pool Operator®
- Iowa Code requires person on staff be CPO, or contract for services of CPO.
- CPO has demonstrated knowledge of pool sanitation and chemicals used
- CPO establishes water cleaning & sanitizing program:
  - checks of chemical readings and pH
  - documentation system
  - tile cleanings/skimers and filters
  - vacuum schedule (recommended frequency depends on location (indoor/outdoor), patron numbers, weather, etc.

# Treated Water Chemicals - Chlorine

- Forms
  - Tablets
  - Liquid
  - Gas (depends on size of body of water)
- Minimum reading of 1.0 parts per million (ppm) but range 1.4 to 3.4 recommended (higher if outdoor pools because sunlight and debris can break down)
- Effective pH range is 6.9 – 7.6
  - know pH of water in area, adjust with soda ash or muturic acid (up or down)
- Check and record pH and Chlorine reading every 4 hours for pools

# Bromine

- Used in spas and some use in pools
- 5.4 minimum reading with up to 13.0 ppm allowed (more than 13.0, water is cloudy)
- If water in spa is cloudy or murky, drain and refill
- pH range 7.2 to 7.8 best
- Check and record bromine and pH every 2 hours for spas

# Documentation

- Signs posted about hours, rules, and cautions
- Check and record chlorine, bromine and pH every 2 or 4 hours
- Cleaning logs of locker rooms (handwashing supplies available, particularly if food served)
- Cleaning of pool or spa – tiles, filters and skimmers, additional skimming, vacuuming, light bulbs ok
- Additional needs or incidents – ie. mouse in pool or broken glass
- Staff trained to check by CPO
- CPO monitors that practices are followed properly and ensures compliance

# Conclusion

- Increasing attention to RWI – due to increased outbreaks
- As General Manager or Person In Charge, there is a need to have understanding of all facets of the operation, including recreational pools
- Research shows the need to establish these best practices

# RESOURCES

National Swimming Pool Foundation at <http://www.nspf.com/>

Iowa Department of Public Health – Swimming Pool and Spa Program

[http://www.idph.state.ia.us/eh/swimming\\_pools.asp](http://www.idph.state.ia.us/eh/swimming_pools.asp)

Center Disease Control and Prevention

<http://www.cdcfoundation.org/partners/foundations/NationalSwimmingPoolFoundation.aspx>

- Further reading – see *International Journal of Aquatic Research and Education*  
<http://www.humankinetics.com/IJARE/journalAbout.cfm>