Aquatic Facility Rules Fact Sheet #12

What you should know about the Code

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6.4.1.8.1 Contamination Incidents

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PUBLIC HEALTH REASONS:

Recreational water illnesses (RWIs) are caused by germs and chemicals found in various recreational water sources, including pools, water parks, hot tubs, splash pads, lakes, rivers, and oceans. These illnesses can be spread through swallowing, inhaling, or coming into contact with contaminated water. Common incidents leading to contamination include vomit or feces in the water. It is crucial to act quickly in these situations to eliminate and neutralize any potential pathogens in the water. The most prevalent types of RWIs are caused by germs such as Cryptosporidium, E. coli O157, norovirus, and Shigella.

Contamination Response

Sometimes accidents happen and patrons can contaminate the water. The Aquatic Facility Rules have clear direction on what to do if you find vomit, feces or blood in your pool. It it is crucial to follow these general guidelines to ensure proper cleaning and safety for the public:

- 1. Check the water's pH level and ensure it is 7.5 or lower; adjust as necessary.
- 2. Verify and maintain the water temperature at 77°F (25°C) or higher, unless the aquatic venue lacks heating equipment.
- Operate the filtration and recirculation system while ensuring the proper free chlorine concentration during the remediation process.
- 4. Test the free chlorine residual at multiple sampling points to confirm that the appropriate concentration is achieved throughout the entire pool during the disinfection period.
- 5. Use only non-stabilized chlorine products to increase the free chlorine levels during remediation.
- 6. Fill out your Body Fluid Contamination Response Log, recording actions taken after any incident involving fecal matter, vomit, or blood contamination.

Pool Deck

It is essential to restrict access to the aquatic venue based on the type of contamination present. Body fluids, including blood, feces, and vomit, are potentially contaminated with pathogens. Therefore, any spills of these fluids on the pool deck should be cleaned up immediately. First, remove any visible contamination, and then disinfect the affected surfaces.

Giardia

Giardia causes diarrhea and is found in an infected person's feces. It is protected by a tough outer shell (cyst) allowing it to survive for up to 45 minutes, even in properly chlorinated pools and water play areas.

Giardia cysts are killed after being submerged in chlorinated water with a concentration of 2.0 ppm, pH of 7.5 and a temperature of 77° after 25 minutes, which is called the inactivation time. Chlorine stabilizers, such as cyanuric acid (CYA), can slow down the disinfection process. Aquatic venues using CYA or a stabilized chlorine must double the inactivation time.



Blood in the water of a properly maintained aquatic venue does not pose a public health risk to swimmers.

Animal Contamination

A variety of animals, like skunks, birds, mice, snakes, frogs, and bats, may occasionally be found dead in swimming pools. Typically, these deceased creatures do not present a health hazard to swimmers. However, if you find a dead raccoon in your pool, you should call the health department since they may have a parasite called Baylisascaris, and additional treatment may be needed.



Rule References

6.4.1.8.1 Contamination Incidents Body Fluid Contamination Response Log shall be maintained to document each occurrence of contamination of the water or its immediately adjacent areas by formed or diarrheal fecal material, whole stomach discharge of vomit, and blood.

6.5.2.3 Treated Aquatic venue water that has been contaminated by feces or vomit shall be treated as follows:

- 1) Check to ensure that the water's pH is 7.5 or lower and adjust if necessary
- 2) Verify and maintain water temperature at 77°F (25°C) or higher, except for AQUATIC VENUES without heaters
- 3) Operate the filtration/RECIRCULATION SYSTEM while the POOL reaches and maintains the proper DPD-FC concentration during the remediation process
- 4) Test the FREE CHLORINE RESIDUAL at multiple sampling points to ensure the proper DPD-FC concentration is achieved throughout the POOL for the entire DISINFECTION time; and
- 5) Use only non-stabilized CHLORINE products to raise the DPD-FC concentrations during the remediation.

6.5.3.1 Formed-Stool Contamination Formed-stool contaminated water shall have the DPD-FC concentration checked and the DPD-FC concentration raised to 2.0 ppm (mg/L) (if less than 2.0 ppm [mg/L]) and maintained for at least 25 minutes (or an equivalent time and concentration to reach the CT INACTIVA-TION VALUE) before reopening the AQUATIC VENUE.

6.5.3.2 Diarrheal-Stool Contamination Diarrheal-stool contaminated water shall:

- 1) Check the DPD-FC concentration and then raise the DPD-FC concentration to 20.0 ppm (mg/L) and maintain for at least 12.75 hours (or an equivalent time and concentration to reach the CT INACTIVATION VALUE) before reopening the AQUATIC VENUE or
- 2) Circulate the water through a SECONDARY TREATMENT to theoretically reduce the number of Cryptosporidium OOCYSTS in the AQUATIC VENUE below one OOCYST/100 mL as outlined in 4.7.3.3.2.4.

6.5.3.3 Vomit-Contamination Vomit-contaminated water shall have the DPD-FC concentration checked and the DPD-FC concentration raised to 2.0 ppm (mg/L) (if less than 2.0 mg/L) and maintained for at least 25 minutes (or an equivalent time and concentration to reach the CT INACTIVATION VALUE) before reopening the AQUATIC VENUE.

6.5.3.4 Blood-Contamination Blood contamination of a properly maintained AQUATIC VENUE'S water does not pose a public health risk to swimmers.

Logs Available from the Centers for Disease Control:

- Body Fluid Contamination Response Log
- Water Contamination Response Log