

## Appendix A Bodily Fluid Contamination Response

**Aquatic Venue Water Contamination Response** - In the event of fecal or vomit contamination in an aquatic venue, the aquatic venue shall be immediately closed to bathers until remediation procedures are complete.

- This closure shall include the affected aquatic venue and other aquatic venues that share the same recirculation system.
- Contaminating material shall be removed (e.g., using a net, scoop, or bucket) and disposed of in a sanitary manner.
- Fecal or vomit contamination of the item used to remove the contamination (e.g., the net or bucket) shall be removed by thorough cleaning followed by disinfection (e.g., after cleaning, leave the net, scoop, or bucket immersed in the aquatic venue during the disinfection procedure prescribed for formed-stool, diarrheal-stool, or vomit contamination, as appropriate).
- Aquatic vacuum cleaners shall not be used for removal of contamination from the water or adjacent surfaces unless vacuum waste is discharged to a sanitary sewer and the vacuum equipment can be adequately disinfected.
- Brominated aquatic venues with formed-stool, diarrheal-stool, or vomit-contamination shall have chlorine added to the aquatic venue in an amount that will increase the free chlorine residual to the level specified for the specific type of contamination for the specified time. The bromine residual shall be adjusted, if necessary, before reopening the aquatic venue.

**Aquatic Venue Water Contamination** - 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 or higher.
3. Operate the filtration/recirculation system while the aquatic venue reaches and maintains the proper free chlorine concentration during the remediation process.
4. Test the chlorine residual at multiple sampling points to ensure the proper free chlorine concentration is achieved throughout the aquatic venue for the entire disinfection time.
5. Use only non-stabilized chlorine products to raise the free chlorine levels during the remediation.
6. Time Measurement of the inactivation time required shall start when the aquatic venue reaches the intended free chlorine level.
7. Follow the appropriate contamination steps listed below.

### Formed Stool Contamination

1. Check the free chlorine residual, and then the free chlorine residual shall be raised to 2.0 ppm (if less than 2.0 ppm) and maintained for at least 25 minutes (or an equivalent time and concentration to reach the CT inactivation value) before reopening the aquatic venue.
  - a. In aquatic venue water that contains CYA or a stabilized chlorine product, water shall be treated by doubling the inactivation time above.

### Diarrheal-Stool Contamination

Select *one* of the two following options:

- Option 1: Check the free chlorine residual, and then the free chlorine residual hyper chlorinate shall be raised to 20.0 ppm and maintained for at least 12.75 hours (or an equivalent time and concentration to reach the CT inactivation value) before reopening the aquatic venue.
- Option 2: Circulate the water through a secondary disinfection system to theoretically reduce the number of *Cryptosporidium* oocysts in the aquatic venue below one oocyst/100 mL.

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In aquatic venue water that contains CYA or a stabilized chlorine product, water shall be treated by performing *one* of the three following options:

**Option 1: Hyperchlorination:**

- a. Lowering the CYA concentration to less than or equal to 15 ppm by draining, if necessary.
- b. Raising the free chlorine residual to 20 ppm for at least 28 hours; 30 ppm for at least 18 hours; or 40 ppm for at least 8.5 hours, which is needed to reach the CT inactivation value.
- c. Measuring the inactivation time required, which shall start when the aquatic venue reaches the intended free chlorine residual level.

**Option 2:** Circulating the water through a secondary disinfection system to theoretically reduce the number of *Cryptosporidium oocysts* in the aquatic venue below one oocyst/100 mL.

**Option 3:** Draining the aquatic venue completely.

### **Vomit Contamination**

1. Check the free chlorine residual, and then the free chlorine residual shall be raised to 2.0 ppm (if less than 2.0 ppm) and maintained for at least 25 minutes (or an equivalent time and concentration to reach the CT inactivation value) before reopening the aquatic venue.
  - a. In aquatic venue water that contains CYA or a stabilized chlorine product, water shall be treated by doubling the inactivation time above.

**Blood Contamination** - Blood contamination of a properly maintained aquatic venue's water does not pose a public health risk to swimmers. Operators may choose whether to close the aquatic venue and treat it as a formed stool contamination.

**Aquatic Facility Surface Contamination** - If a bodily fluid, such as feces, vomit, or blood, has contaminated a surface in an aquatic facility, facility staff shall limit access to the affected area until the following remediation procedures have been completed:

1. Clean the surface before disinfection; all visible contaminants shall be cleaned and removed with disposable cleaning products effective regarding the type of contaminant present, the type of surface to be cleaned, and the location within the facility.
  - a. Contaminants removed by cleaning shall be disposed of in a sanitary manner or as required by law.
2. Contaminated surfaces shall be disinfected with one of the following disinfection solutions:
  - a. A 1:10 dilution of fresh household bleach with water; or
  - b. An equivalent EPA-registered disinfectant that has been approved for body fluids disinfection.
3. The disinfectant shall be left to soak on the affected area for a minimum of 20 minutes or as otherwise indicated on the disinfectant label directions.
4. Disinfectants shall be removed by cleaning and shall be disposed of in a sanitary manner or as required by local rule.