



## Ohio Administrative Code

### Rule 901:9-1-14 Water quality for aquatic devices using chemically treated water.

Effective: June 10, 2022

---

(A) Water quality of any aquatic device where full body contact with water exists such as, but not limited to wave pools, water slides, lazy rivers, aquatic activity areas shall be maintained to standards listed below:

(1) Gas chlorine shall not be used for disinfection of any aquatic device.

(2) If chlorine is used as a disinfectant, there shall be a residual of free chlorine in all parts of the aquatic device, maintained preferably between two and four parts per million (ppm), but not less than one ppm.

(3) If bromine is used as a disinfectant, there shall be a residual of total bromine in all parts of the aquatic device, maintained preferably between four and six ppm, but not less than two ppm.

(4) The licensee of an aquatic device shall maintain the water of the device in an alkaline condition as indicated by a pH of not less than 7.2 and not over 7.8.

(5) The licensee shall ensure that the total alkalinity of an aquatic device is maintained at a minimum of sixty ppm.

(6) Cyanuric acid, if used, shall not exceed one hundred ppm.

(7) The licensee shall ensure that the water in an aquatic device has sufficient clarity when in use that a black disc, six inches in diameter, is readily visible when placed on a light field at the deepest point of the pool and is viewed from the pool side when the water is at rest.

(8) The licensee shall ensure that the water in an aquatic device meets at least one of the two bacteriological standards (fecal coliform or E. Coli), but the licensee is not required to take water samples for bacteriological analysis except when the licensor has reason to believe that the water in



an aquatic device does not meet the bacteriological standards. The licensee is responsible to ensure that the required water samples are taken and analyzed by a certified or approved testing facility. The bacteriological standards are:

(a) "MPN" means most probable number.

(b) "MF" means membrane filter.

(c) The geometric mean fecal coliform content (either MPN or MF) based on not less than four samples within a time period determined by the licensor shall not exceed two hundred per one hundred milliliter with no sample exceeding four hundred per one hundred milliliter.

(d) The geometric mean E. Coli content (either MPN or MF) based on not less than four samples within a time period determined by the licensor shall not exceed one hundred twenty-six per one hundred milliliter with no sample exceeding two hundred thirty-five per one hundred milliliter.

(e) For sampling procedures, see paragraph (B) of rule 901:9-1-15 of the Administrative Code.

(B) For aquatic devices where only partial body contact with water exists such as, but not limited to log flume rides, paddle boats, bumper boats:

(1) The licensee shall ensure that the water in an aquatic device meets at least one of the two bacteriological standards (fecal coliform or E. Coli), but the licensee is not required to take water samples for bacteriological analysis except when the licensor has reason to believe that the water in an aquatic device does not meet the bacteriological standards. The licensee is responsible to ensure that the required water samples are taken and analyzed by a certified or approved testing facility. The bacteriological standards are:

(a) The geometric mean fecal coliform content (either MPN or MF) based on not less than four samples within a time period determined by the licensor shall not exceed five thousand per one hundred milliliter (either MPN or MF).

(b) The geometric mean E. Coli content (either MPN or MF) based on not less than four samples



within a time period determined by the licensor shall not exceed five hundred seventy-six per one hundred milliliter.

(2) Gas chlorine shall not be used for disinfection of any aquatic device.

(3) Free chlorine must be maintained not less than one ppm.

(C) Documentation:

(1) Full body water contact:

(a) Record keeping: All aquatic devices shall maintain records of chemical levels and water quality.

(b) Records shall report the disinfectant levels and pH of the aquatic device for each day it is in operation.

(c) Manual checks, performed with diethyl-p-phenylenediamine (DPD) test kit, shall be recorded at pre opening and each two hours of operation thereafter if the aquatic device does not have automated chemical control.

(d) Manual checks, performed with a DPD test kit, shall be recorded at pre opening and each four hours of operation thereafter if the aquatic device is equipped with automatic control. The manual checks shall be used to calibrate the electronic monitoring devices' accuracy.

(e) Each four hours of operation after opening, a reading shall be taken from the automatic controller and documented.

(f) Water balance test results shall be recorded at least weekly.

(2) Partial body water contact:

(a) Record keeping: All aquatic devices shall maintain records of chemical levels and water quality.



(b) Records shall report the disinfectant levels for each day it is in operation.

(c) Manual checks, performed with a DPD test kit, shall be recorded at pre opening of each day of operation.

Records for both full body water contact and partial body water contact shall be maintained for such a period as dictated by insurance carriers, local legal statutes, and company counselor's advice, or for a minimum of two calendar years.

(D) Procedures for fecal release (full body water contact only):

(1) If a fecal release occurs in an aquatic device, the following minimum shall be done:

(a) Ensure patrons exit the aquatic device and then close the aquatic device.

(b) Remove as much of the solid fecal matter from the aquatic device as possible. Ensure the fecal matter is handled properly and disposed of in a sanitary sewer (toilet).

(c) Ensure the free chlorine residual of the aquatic device is at least two ppm or increase the free bromine residual to at least four ppm.

(d) Ensure the pH of the aquatic device is between 7.2 and 7.8.

(e) Prior to reopening the aquatic device, manual testing shall be taken at representative regions on the water body to ensure the average water body is at least two ppm free available chlorine, and the pH is between 7.2 and 7.8.

(f) If the fecal release is diarrheal in nature, increase the free chlorine residual to at least five ppm or increase the free bromine to at least eight ppm. Prior to reopening the aquatic device, manual testing shall be taken at representative regions on the water body to ensure the average water body is at least five ppm free available chlorine and the pH is between 7.2 and 7.8.

(g) Diaper age children and diaper dependent adults shall wear a protective outer wear covering,



designed specifically for use in aquatic settings. The protective covering must be made of a material that will not allow water to penetrate and have an elasticity at the legs and waist to prohibit any liquid to pass from outside in or inside out.

(E) Any person with an obvious infectious wound shall not be permitted to use an aquatic device. No person who is observed passing feces, urine, or blood into an aquatic device shall be permitted to use the aquatic device. Any person who has been refused entry to or removed from an aquatic device under this paragraph because of an infectious wound may be granted entry upon presentation of a written statement from a physician that the condition is not infectious.

(F) Operation and management:

(1) Management qualifications. All facilities containing aquatic devices with full body water contact shall have at least one employee properly trained in sanitation, safety, and proper maintenance of the aquatic device, and all physical and mechanical equipment and be trained in accordance with the standard of one of the following agencies:

(This does not apply to aquatic devices where only partial body contact with water exists)

(a) National swimming pool foundation's certified pool/spa operator course (CPO);

(b) National recreation and parks association aquatic facility operator course (AFO);

(c) YMCA pool operator on location (POOL) certified operator.