

ARTICLE 3. Swimming Pools; Operation and Maintenance

Section 69.1-3-1. Security.

Swimming pool facilities shall be operated and maintained in a manner which will not create a nuisance or hazard to the public's safety or health. The pool shall be adequately secured to prevent unauthorized entry when not in use. (28-01-69.1; 5-05-69.1.)

Section 69.1-3-2. Water Operating Levels.

The water level shall be maintained within the operating range of the skimmers or at the top of the overflow rim of a gutter system at all times the swimming pool is open for use. (28-01-69.1; 5-05-69.1.)

Section 69.1-3-3. Monitoring, Reporting, and Record Keeping.

The following information shall be recorded and maintained by the owner for a minimum of one year from the date of the recording, occurrence, or incident; and shall be available for inspection at all times while the swimming pool is in operation:

A. *Water Quality Parameters and Maintenance.*

1. The disinfectant residual and pH shall be tested and the results recorded at least once every two hours while the pool is in use. ORP readings, if applicable, shall also be recorded every two hours while the pool is in use. The water temperature, for heated pools, and the total chlorine residual, for pools utilizing chlorine, shall be tested and recorded a minimum of once a day.
2. Influent and effluent pressure gauge readings and the flow rate shall be observed every two hours and be recorded at least two times per day; at least once prior to opening to the public and during the last hour of operation. The date and time of each backwash or filter cleaning shall be recorded.
3. Total alkalinity and calcium hardness tests shall be performed and recorded weekly, or more often as necessary to

provide proper chemical balance of the pool water. Cyanuric acid tests shall be performed and recorded weekly at all pools utilizing cyanuric acid or chlorinated cyanurates.

4. The date, time, type, and amount of any chemicals added to the pool water shall be recorded. However, for chemicals added continuously with a chemical feeder, only the type of chemical shall be documented.

B. Other Records.

1. The owner shall immediately notify the Director of all drownings, near drownings, injuries, water-related illness or deaths which have occurred. Notification of minor injuries, such as minor abrasions or superficial cuts, shall not be required. Owners shall submit a complete written drowning and injury report, containing all relevant facts and information related to the incident, to the Director within seven days of an incident. The following information must be included in the report of all drownings, near drawings, injury, water-related illness, or deaths which have occurred:

- Pool Operator on duty at time of incident
- Date, time and exact location of incident
- Name, age and certifications of persons involved in incident
- Number of lifeguards on duty at time of incident
- Exact locations of all lifeguards on duty
- Pool and/or spa water clarity
- Number of bathers in the pool
- Number of patrons in the facility
- Police Case number (if available)
- Injury description
- Names of witnesses
- Detailed description of accident

2. Owners shall have available at the water recreation facility proof of the credentials, training, and/or certifications required for personnel as detailed in § 69.1-1-10 and § 69.1-3-8.

3. Material Safety Data Sheets (MSDS) for all chemicals used at a swimming pool facility shall be provided in a location readily accessible to all employees. (28-01-69.1; 5-05-69.1.)

Section 69.1-3-4. Placards.

A. The water test results specified in § 69.1-3-3A)(1) shall be legibly and conspicuously posted on a permanent, water-proof, and durable placard in a location where it is readily observable by the patrons. The most recent required daily water quality test results, including the date and time of day tested, shall be posted. The minimum and maximum standards for these parameters, as specified in § 69.1-3-13 Table III, shall be included on the placard. Water temperature shall also be posted for heated pools.

B. Areas restricted to operating personnel only shall be prominently identified with a permanent, legible placard stating "Authorized Personnel Only" including but not limited to the filter and chemical storage rooms. The placards shall be conspicuously located on the exterior of the doors to the restricted areas.

C. A permanent, legible, placard(s) specifying facility rules and regulations regarding personal health and safety shall be posted in plain view of patrons within the facility.

D. A permanent, legible, engraved plastic or laminated paper specification placard shall be conspicuously displayed within the filter room(s) and shall be adequately lighted. The following information shall be included on the placard:

- name and address of the facility.
- volume in gallons.
- water surface area in square feet.
- minimum turnover time in hours.
- minimum rate of flow in gallons per minute to provide the required turnover time.
- maximum facility load, and maximum pool load(s).

E. Separate legible placards shall be posted in an appropriate location within the filter room(s) to describe the following pool operating procedures:

1. instructions on the proper operation of pumps and filters including the valve line ups for filtration.
2. instructions on proper backwashing or cleaning procedures and valve positions for backwashing.

F. A separate, permanent, legible placard clearly indicating the maximum facility load and individual swimming pool load(s) shall be conspicuously posted at the main entrance to the swimming pool facility. The letters and numbers indicating the load(s) shall be a minimum of two inches in height. (28-01-69.1; 5-05-69.1.)

Section 69.1-3-5. Precautions Relative to Communicable Disease.

Any person having an obvious skin disease, nasal or ear discharge, inflamed eye, or any communicable disease shall be excluded from the facility. (28-01-69.1; 5-05-69.1.)

Section 69.1-3-6. Food Service.

Any person in the process of eating or drinking shall remain in an area designated for the consumption of food and drink. This area shall be at least ten feet from the swimming pool edge and shall be enclosed by a fence or suitable barrier. Glass containers are not permitted in the pool area. (28-01-69.1; 5-05-69.1.)

Section 69.1-3-7. Boisterous and Rough Play.

Boisterous and/or rough play and running is prohibited at any swimming pool facility. (28-01-69.1; 5-05-69.1.)

Section 69.1-3-8. Lifeguards.

A. There shall be at least one lifeguard at all pool facilities. A minimum of one lifeguard shall be required for every 50 patrons or fraction thereof in the pool area. Additional lifeguards may be required by the Director when deemed necessary for complete visual coverage of the pool or when conditions exist that may compromise the health or safety of pool patrons.

B. Lifeguards shall be at least 15 years of age and shall be properly trained and certified in accordance with nationally recognized standards equivalent to or exceeding those set by the American Red Cross. Lifeguards shall also be trained and certified in cardio-pulmonary resuscitation in accordance with national standards equivalent to or exceeding those set by the

American Red Cross. It is the responsibility of each training organization that issues lifeguard and/or CPR certifications to insure that the course standards are equivalent to or exceed those set by the American Red Cross. Lifeguards shall have their original document of certification and valid photo identification at the pool facility during operation of the pool facility.

C. Lifeguards shall wear distinguishing emblems on their clothing clearly identifying them as lifeguards while on-duty. Lifeguards shall not be subject to duties that would distract their attention from the proper observation of patrons in the pool area or that would prevent immediate assistance to patrons in distress. (28-01-69.1; 5-05-69.1.)

Section 69.1-3-9. Safety and Rescue Equipment; Other Safety Features.

A. Every swimming pool facility shall be equipped with the following readily accessible safety and rescue aids:

1. A minimum of one rescue tube shall be provided immediately adjacent to each lifeguard stationed poolside. The rescue tube shall measure at least 45 inches in length and shall provide adequate buoyancy to keep two persons afloat in the water.
2. An approved first aid kit, which meets OSHA First Aid 29 CFR 1910.151 standards, shall be readily available. The kit shall meet the minimum requirements of generic first aid kits according to the American National Standards Institute (ANSI) Z308.1-1978.
3. A full-length backboard with straps shall be provided. The backboard shall be buoyant, and capable of supporting a minimum of 350 pounds, center loaded, with minimal deflection. The backboard shall have an impervious surface and be provided with runners, numerous hand/strap holes, and a minimum of three backboard straps.
4. Provide one or more light, but strong, nontelescopic poles with blunted ends not less than twelve feet in length including a body hook.

B. *Other Safety Features.*

1. The room designated for emergency care of casualties shall, at a minimum, be equipped with an approved first aid kit, a cot,

and two blankets. Filter or chemical storage rooms shall not be used as emergency care rooms.

2. All chemicals associated with the facility shall be stored and utilized in a safe and approved manner in accordance with manufacturer's recommendations. Incompatible chemicals shall not be stored in close proximity to each other. Cleaning chemicals and supplies shall be stored in a safe manner, separate from swimming pool chemicals. Chemicals shall be stored in properly labeled containers which shall be kept covered at all times.

3. Chemical vats shall be covered with proper lids and shall be provided with an approved means of secondary containment such as an outer spill control container or a spill pallet adequate in size and capacity to contain spills and leaks.

4. Protective equipment, including but not limited to goggles or full face shields; neoprene rubber gloves; and rubber aprons shall be provided and used by personnel handling hazardous chemical compounds.

5. Plugs or caps shall be installed at all pool suction cleaner outlet ports when the suction cleaner is not in use. The main valve controlling the water flow from the pool suction cleaner outlet ports shall be closed when the pool suction cleaner is not in use.

6. All safety equipment and features required in this Ordinance shall be maintained in good condition and repair.

7. Pool water temperature shall not exceed 104 degrees Fahrenheit.

8. Safety signs shall be displayed in a prominent location warning against diving into water depths less than five feet of water without specific supervision. The letterings of the safety signs must be a minimum of five inches in height. (28-01-69.1; 5-05-69.1.)

Section 69.1-3-10. Laundering.

Bathing suits, towels and other reusable materials furnished by a swimming pool facility shall be properly cleaned or laundered and disinfected before being issued to patrons. (28-01-69.1; 5-

05-69.1.)

Section 69.1-3-11. Water contamination.

A. The following information shall be posted at the entrance of every pool:

1. If you have or have had diarrhea in the past two weeks, please do not use the pool.
2. Shower your child and yourself before entering the pool or after using the toilet.
3. Bathers who are not toilet trained or incontinent persons must wear a swim diaper.
4. Do not drink pool water.

B. The introduction of body waste including sputum or vomitus, into a pool is prohibited. Patrons wearing cloth or disposable diapers are prohibited from entering the pool water. A pool contaminated by human feces or vomit shall be cleared immediately. The following actions shall be taken prior to reopening the pool:

1. In the event of well-formed stool contamination:
 - a. Clear the pool.
 - b. Remove as much of the contaminating material as possible using a net or scoop. Vacuuming is not recommended unless it discharges directly to waste.
 - c. Raise pool disinfectant level to a minimum of three ppm and adjust pH to a level of 7.5 or less.
 - d. Prohibit patrons from entering the pool for a minimum of one hour.
2. In the event of diarrhea or vomitus contamination
 - a. Clear the pool.
 - b. Remove as much contaminating material as possible from the water using a net or scoop. Vacuuming is not recommended unless it discharges directly to waste.
 - c. Raise pool disinfectant level to a minimum of three ppm and adjust pH to a level of 7.5 or less.
 - d. Prohibit patrons from entering the pool for a minimum of two hours.
3. In the event of a fecal or vomitus contamination from a

patron with Cryptosporidiosis:

- a. Clear the pool.
- b. Immediately notify the Director of the occurrence.
- c. Remove as much of the contaminating material as possible from the pool water. Vacuuming is not recommended unless it discharges directly to waste.
- d. Raise pool disinfectant level to a minimum of 20 ppm and adjust pH to a level of 7.5 or less for a minimum of nine (9) hours.
- e. Patrons are prohibited from entering the pool during this time period.
- f. Achieve acceptable disinfectant residuals and chemical balance as specified in § 69.1-3-13 Table III prior to allowing patrons to enter the pool. (28-01-69.1; 5-05-69.1.)

Section 69.1-3-12. Water Clarity.

When a swimming pool is open for use, the water shall be considered sufficiently clear when the main drain grates are clearly visible. (28-01-69.1; 5-05-69.1.)

Section 69.1-3-13. Water Treatment and Test Equipment.

A. The following chemicals may be used to treat swimming pool water: aluminum sulfate, calcium chloride, calcium hypochlorite, carbon dioxide, cyanuric acid, lime, muriatic acid, polyaluminum chloride, sodium bicarbonate, sodium bisulfate, sodium carbonate, sodium hypochlorite, sodium thiosulphate, approved algaecides, approved bromine compounds, and approved chelating, sequestering, and clarifying agents. No other chemicals shall be used to treat swimming pool water without prior written authorization from the Director.

B. Aluminum sulfate and polyaluminum chloride shall not be fed continuously into a recirculation system using rapid sand filters. Formation of the floc shall be achieved separately and applied directly to the filter influent during the rewash and continuing into the early part of the filter cycle.

C. Chemical water quality standards for swimming pools shall

be as follows:

1. Except as noted below, disinfectant residual, pH, total alkalinity, and calcium hardness shall be continuously maintained within the minimum and maximum ranges specified in Table III. If the swimming pool is equipped with automatic chemical controllers utilizing ORP measurements, ORP shall be maintained within the ranges specified in Table III. Disinfectant residual limits specified in Table III may be exceeded in pools with automatic chemical controllers, which utilize ORP measurements and continually analyze and automatically control pH and the disinfectant residual, only if necessary to maintain the ORP specified in Table III. However, the disinfectant residual shall not exceed ten ppm in such pools. The use of ORP sensing equipment does not eliminate the requirement for routine water testing specified in § 69.1-3-3. Disinfectant residual limits specified in Table III may be exceeded when superchlorinating a swimming pool provided that no patrons are present in the swimming pool water and that the disinfectant level is returned to the acceptable range prior to allowing patrons to enter the swimming pool water.

Table III. Chemical Water Quality Standards for Swimming Pools.

TABLE INSET:

| Parameter | Minimum | Ideal |
|--|---------|-----------|
| Free Chlorine Residual (ppm) | 1 | 1 - 3 |
| Combined Chlorine Residual (ppm) | 0 | 0 |
| Bromine Residual (ppm) | 2 | 2 - 4 |
| Oxidation Reduction Potential (ORP) (millivolts) | 650 | 750 - 900 |
| pH | 7.2 | 7.4 - 7.6 |
| Total Alkalinity (ppm) | 60 | 80 - 120 |
| Calcium Hardness (ppm) | 150 | 200 - 400 |

2. Except as noted in § 69.1-3-13(C)(1)&(D), disinfectant residuals shall be maintained within the ranges specified in Table

III, 24 hours per day, through the use of automatic disinfection equipment specified in § 69.1-2-23. For swimming pools that backwash/clean filters to storm drains, streams, lakes or other bodies of water, disinfectant levels may be temporarily reduced immediately prior to the backwashing/cleaning of filters, provided the swimming pool facility is not open for patron use.

D. If Cyanuric acid or chlorinated cyanurates is used in an outdoor swimming pool, the Cyanuric acid levels and disinfectant residuals shall be maintained within the following ranges:

1. A free chlorine residual of at least two ppm shall be maintained for Cyanuric acid levels from zero to 50 ppm.
2. The concentration of Cyanuric acid shall not exceed 50 ppm.
3. The use of Cyanuric acid or other chlorine stabilizers is prohibited in indoor swimming pools.

E. An approved water quality test kit for determining free and total chlorine or total bromine residuals, pH, total alkalinity, and calcium hardness shall be provided and maintained. Provisions shall be made for checking superchlorination levels. Diethyl-p-phenylene diamine (DPD), or other testing reagent approved by the Director, is required for determining free halogen residual. If another disinfectant has been approved by the Director for use at a swimming pool, an appropriate test kit approved by the Director shall be provided and maintained. A test kit for measuring the concentration of Cyanuric acid, accurate within five ppm, shall be provided at each swimming pool using Cyanuric acid or chlorinated cyanurates.

F. Hand-feeding of chemicals shall not be permitted during hours of operation or within 30 minutes prior to opening. (28-01-69.1; 5-05-69.1.)

Section 69.1-3-14. Design Load.

The maximum individual swimming pool bather load shall be determined by dividing the total water surface area in square feet of each swimming pool within the swimming pool facility by 27 square feet. The designated maximum individual swimming pool bather load and the maximum facility load shall not be exceeded. The pool operator shall be responsible for enforcing the

maximum individual swimming pool bather load and the maximum facility load. The maximum facility load may be temporarily exceeded to allow for spectators of special events, such as recreational swimming meets or other water sport activities, provided that the spectators shall not have access to and shall be separated from the pool(s) both during and after the event. (28-01-69.1; 5-05-69.1.)

Section 69.1-3-15. Spectators.

No person in street shoes shall be allowed on the deck of a swimming pool within five feet of the pool edge. Exceptions may be made for participants and spectators of swimming meets or other water sport activities, operating personnel, personnel engaged in repair work or the Director. (28-01-69.1; 5-05-69.1.)