

15A NCAC 18A .2543 WATER RECREATION ATTRACTIONS

(a) Upon written request and approval by the Department, water recreation attractions including water slides, wave pools, rapid rides, lazy rivers, artificial swimming lagoons, and other similar features may deviate from the requirements of this Section with respect to pool profile, depth, freeboard, flow dynamics and surface skimming systems. The Department shall approve the request upon a showing that such deviation performs in a manner equally to or more protective of public health than the requirements of this Section based upon design plans and technical specifications by the designing engineer or equipment manufacturer. Water recreation attractions shall meet all other requirements of this Section.

(b) Water slide landing pools with a capacity of less than 60,000 gallons shall have a circulation and filtration system capable of turning over the entire pool capacity every two hours. Where automatic chemical controllers are used the turnover time shall be no more than three hours. Landing pool dimensions shall be consistent with the slide manufacturer's recommendation.

(c) When waterfalls are incorporated in water recreation attractions, they shall be constructed with no handholds or footholds to a height of four feet to discourage climbing.

(d) Interactive play attractions shall be constructed and operated in accordance with the rules of this Section and shall comply with the following:

- (1) The recirculation system shall contain a water capacity equal to at least three minutes of maximum flow of all feature pumps and filter circulation pumps combined and shall not be less than 1,000 gallons. Where the water capacity exceeds 10,000 gallons, the minimum capacity shall be based on the lesser of three minutes of maximum feature flow or 7.5 gallons per square foot of splash zone watershed drained to the surge container.
- (2) Access shall be provided to the surge water container.
- (3) A filter circulation system shall be provided and shall be separate from the feature pump system except that both systems can draw water from a common drain pipe if the drain and pipe are sized to handle the flow of all pumps without exceeding the flow velocities specified in Rule .2518 of this Section.
- (4) The filter circulation system shall draw water from the surge container through a variable height surface skimmer and a bottom drain located no more than 6 inches from the bottom of the container.
- (5) The filter circulation system shall filter and return the entire water capacity in no more than 30 minutes and shall operate 24 hours a day.
- (6) Automatic chemical controllers shall be provided to monitor and adjust the disinfectant residual and pH of the water contained in the system.
- (7) The disinfectant residual in interactive play attractions shall be maintained at a level of at least two parts per million of free chlorine. Chlorine feeders shall be capable of producing 12 parts per million of free chlorine in the filter circulation piping.
- (8) Valves shall be provided to control water flow to the features in accordance with the manufacturers' specifications.
- (9) Splash zones shall be sloped to drains sized and located to remove all feature water to the surge tank without water accumulating on the surface.
- (10) Deck or walkway space is not required outside the splash zone.
- (11) Dressing and sanitary facilities shall not be required.
- (12) Interactive play features shall not be required to have a fence except the wading pool fence requirements shall apply to interactive play features located inside a swimming pool enclosure.
- (13) The safety provisions of Rule .2530 of this Section shall not apply except a sign shall be posted prohibiting pets and glass containers.
- (14) Interactive play attractions built prior to April 1, 2004, that do not comply with these design and construction requirements shall be permitted to operate as built if no water quality or safety violations occur under Rules .2535 and .2537 of this Section.

(e) Training pools shall meet the requirements for swimming pools with the following exceptions:

- (1) Training pools shall be equipped with a filter circulation system that filters and returns the entire pool capacity in no more than two hours.
- (2) The free chlorine residual in training pools shall be maintained at no less than two parts per million.

(f) Artificial swimming lagoons shall meet the requirements for public swimming pools except as specified in this Rule:

- (1) Pool shells shall not be required. Liners shall meet the requirements of Rule .2514 of this Section.
- (2) Underwater components of the artificial swimming lagoon or float lines with openings greater than one-half inch shall not be allowed in swimming zones.
- (3) All swimming zone float rope components shall be a color contrasting with the pool liner. Artificial swimming lagoons are not required to meet the float rope location requirements of Rule .2523(e) of this Section regarding breakpoint and slope. A contrasting color band shall not be required on the liner under the rope.
- (4) Each swimming zone and water feature shall meet water quality standards as required in Rule .2535 of this Section. If the water quality of a swimming zone or water feature does not meet the requirements of Rule .2535 of this Section, the operator shall close the swimming zone or water feature and post a sign at the entrance of the swimming zone with legible letters of at least four inches (10 cm) in height stating "ATTENTION: THE SWIMMING ZONE IS CLOSED. SWIMMING IN THIS AREA IS NOT PERMITTED AT THIS TIME." The swimming zone or water feature shall remain closed until the water quality in the swimming zone or water feature complies with the requirements of Rule .2535 of this Section.
- (5) All non-swimming zones shall be maintained so the bottom of the lagoon is visible in all areas.
- (6) A sign shall be posted at all entrances to the artificial swimming lagoon with legible letters of at least four inches (10 cm) in height stating "NOTICE – NO SWIMMING ALLOWED OUTSIDE OF DESIGNATED SWIMMING ZONES."
- (7) Signage shall be posted indicating swimming zones.
- (8) Depth markings and no diving markers shall be provided on decks in swimming zones as required in Rule .2523 of this Section. Signs shall be posted at all entrances to swimming zones with legible letters of at least four inches (10cm) in height stating "NO DIVING" and stating the maximum depth of the swimming zone in Arabic numerals and shall include the word "feet" or the symbol "ft" to indicate the unit of measure.
- (9) Decks at zero entry areas located within swimming zones are not required to meet the minimum deck area requirements in Rule .2522 of this Section. Access to swimming zones shall be provided for emergency vehicles and personnel. No decks shall be required in non-swimming zones. The requirements of Rule .2515(g)(1) of this Section shall not apply to swimming zones and Rule .2515(g) of this Section shall not apply to non-swimming zones.
- (10) Swimming zones shall meet all safety provisions as set out in Rule .2530 of this Section. Where swimming zones are separated by more than 75 feet, each swimming zone shall separately meet all safety provisions. Non-swimming zones are exempt from the requirements in Rule .2530 of this Section.
- (11) A water treatment system that does not meet the requirements of Rules .2518 and .2519 of this Section shall be approved by the Environmental Health Section of the Department's Division of Public Health when the treatment system performs in a manner equal or superior to the systems described in Rules .2518 and .2519 of this Section in terms of water clarification, disinfection, and removal of debris, and results in a disinfectant residual and pH level as required in Subparagraph (f)(4) of this Rule.
- (12) The requirements of Rule .2529 of this Section and Rule .2526(e)–(h) of this Section shall not apply. Sanitary facility requirements shall comply with the 2018 North Carolina State Building Code: Plumbing Code, which is incorporated by reference, including any subsequent amendments or editions and available free of charge at: <https://codes.iccsafe.org/content/NCPC2018>.
- (13) Bacteriological samples shall be collected by the operator in non-swimming zones and tested weekly. One sample shall be collected for every 250 feet of shoreline, with no more than 300 feet and no less than 25 feet between any two sampling locations. The samples shall be collected at least one foot below the surface, in at least three feet of water. The samples shall be analyzed by a laboratory accredited by the North Carolina Drinking Water Laboratory Certification Program, the North Carolina Wastewater/Groundwater Laboratory Certification Program, or the National Environmental Laboratory Accreditation Program. The test results shall be maintained as part of the records required in Rule .2535(11) of this Section.
- (14) When the result of any test required by Subparagraph (f)(13) of this Rule exceeds the standards in Rule .3402(a) of this Subchapter, the operator shall:
 - (A) notify the local health department that permitted the artificial swimming lagoon and resample the water within 24 hours of receipt of the result from the laboratory; and

- (B) close all non-swimming zones and post a sign at all non-swimming zone entrances with legible letters of at least four inches (10 cm) in height stating "ATTENTION: ALL NON-SWIMMING ZONES ARE CLOSED. RECREATIONAL ACTIVITIES IN THIS AREA ARE NOT PERMITTED AT THIS TIME." This sign shall remain posted until resampling determines that bacterial levels do not exceed the standards in Rule .3402(a) of this Subchapter.
- (15) Non-swimming zones shall not be required to comply with the lighting requirements of Rule .2524 of this Section. When night swimming is allowed, the operator shall provide lighting in swimming zones as required for public swimming pools.
- (16) The requirements of Rule .2537(b)(16) of this Section shall not apply. Submersible pumps or mechanical pool cleaning equipment shall not be used in swimming zones or within 25 feet of swimming zones when a swimming zone is open to bathers. If submersible pumps or mechanical pool cleaning equipment are used in non-swimming zones when a non-swimming zone is open to users, the following conditions shall apply:
 - (A) A registered design professional shall provide design plans or technical specifications that demonstrate that any underwater suction outlets perform in a manner that is equally protective or more protective than the Pool and Hot Tub Alliance's ANSI/APSP/ICC-7 2013 Standard for Suction Entrapment Avoidance in Swimming Pools, which is incorporated by reference, including any subsequent amendments or editions, and available for a fee of one hundred sixty-five dollars (\$165.00) at <https://www.apsp.org/store1>; and
 - (B) All floating components of submersible pumps or mechanical pool cleaning equipment shall be labeled with a sign above the water line with legible letters of at least four inches (10 cm) in a contrasting color stating: "DANGER: MECHANICAL EQUIPMENT IN USE. STAY BACK 25 FEET."
- (17) The requirements of Rules .2521 and .2516(f)(1) of this Section shall not apply to non-swimming zones.

*History Note: Authority G.S. 130A-280; 130A-282; S.L. 2011-39; S.L. 2019-88;
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