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Document No. 4030

**DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL**

CHAPTER 61

Statutory Authority: 1976 Code Sections 44-1-60, 44-1-140(7), and 44-55-2310 et seq.

61-51. Public Swimming Pools

**Synopsis**

R.61-51 was enacted to protect public health and safety when recreating in public swimming pools. These amendments incorporate updated design and construction requirements. There are several operation and maintenance changes that are necessary to improve safety in and around the pool as well as ease of maintenance. These amendments address multiple issues dealing with the construction and operation of public swimming pools in South Carolina. The amendments are needed to provide greater flexibility for the building of public swimming pools and are necessary in order to provide consistently safe and healthy recreation for our citizens and visitors when they choose to swim in public pools throughout the State.

 See Discussion of Revisions below and Statements of Need and Reasonableness and Rationale herein.

Discussion of Revisions:

 Note: The sections cited in this listing reflect the sections as they are numbered in the underline/overstrike version of the regulation.

 Relocation of specific diagrams could not be shown by strikeout and underline in the text as explained in the instructions of the text of the amendments.

**Issue 1)**  **Design criteria and plans that meet Federal and/or State recommendations and requirements.**

**SECTION** **CHANGE**

R.61-51.A.3

Added language for age clarification.

R.61-51.A.5

Removed reserved and added new definition.

R.61-51.A.43

Added language to exempt duplexes from regulation.

R.61-51.A.43(e)

Added language to clarify subdivision pools with slides.

R.61-51.A.45(g)

Added language to establish Type G pools.

R.61-51.A.62

Added language to clarify vertical.

R.61-51.A.67

Added language to define “zone”.

R.61-51.B.4(a)

Added language to require plans kept on job site during construction.

R.61-51.B.5(c)

Added language to require fee submittal with Change Order Requests.

R.61-51.C.6(b)

Added requirements for using concrete pavers as decking.

R.61-51.C.6(f)

Changed requirement to lengthen hose bib distances to one hundred 100 feet and added language to establish backflow prevention requirements.

R.61-51.C.7

Revised language on depth markers.

R.61-51.C.8(a)

Revised language for fencing requirements for pools with slides.

R.61-51.C.8(b)

Revised language for fencing requirements for pools with slides.

R.61-51.C.9(a)

Added language for clarification on door sizing, light switches, floor drains, and sumps and added language to establish requirements for an emergency disconnect for pumps.

R.61-51.C.9(c)

Added language to require installation per manufacturers recommendations.

R.61-51.C.10

Revised language on chemical storage room requirements.

R.61-51.C.11

Revised language to require equipment compliance with NEC.

R.61-51.C.12

Added and revised language to exclude cell and cordless phones to be used as emergency notification devices.

R.61-51.C.15(c)

Added language to establish requirements for sump pits.

R.61-51.C.16

Added language to establish requirements for dechlorination.

R.61-51.C.17

Added language to require approvals for discharge.

R.61-51.C.21

Added language to allow ultraviolet or ozone disinfection.

R.61-51.C.25(a)

Added and revised language for inlets and outlets.

R.61-51.C.26(b)(vii)

Added language to establish requirements for using concrete pavers.

R.61-51.C.27(b)

Added language to clarify location of life saving equipment.

R.61-51.C.27(d)

Added language to clarify which pools need first aid kits.

R.61-51.C.28(a)

Added language to clarify that pool signs be visible.

R.61-51.C.28(b)

Added language to clarify that pool signs be visible.

R.61-51.C.28(b)(xvi)

Added language to establish life saving equipment location on pool rules sign.

R.61-51.C.29(a)

Added language for clarification of fire protection measures.

R.61-51.C.30

Added language to clarify overflow requirements.

R.61-51.C.35

Revised language on step risers, step edge stripes, and handrails and added language establishing requirements on tanning ledges.

R.61-51.C.39

dded language establishing design requirements for surge tanks.

R.61-51.D

Changed section title to include Type G pools in the requirements.

R.61-51.D.2.(a)

Revised language regarding pool depth slope.

R.61-51.D.2.(a)(ii)

Revised language for consistency.

R.61-51.D.2(d)(i)

Added and revised language on skimmers.

R.61-51.D.2(k)

Added language establishing requirements for vanishing edge pools.

R.61-51.D.7

Added language establishing minimum pool width.

R.61-51.D.8

Added language establishing requirements for Type G pools.

R.61-51.E.3

Added language requiring equipment to be installed per manufacturers recommendations.

R.61-51.I.1

Revised language to add interior pool coating to list of items requiring a change order request.

**Issue 2) Safety requirements that ensure that the public, maintenance, and repair staff are aware and protected from potential hazards.**

**SECTION** **CHANGE**

R.61-51.J.8

Revised language on equipment room requirements.

R.61-51.J.11(a)

Revised language regarding life guards.

R.61-51.J.11(b)

Revised language for consistency.

R.61-51.J.11(d)

Revised language for life saving equipment location.

R.61-51.J.11(g)

Revised language prohibiting cell or cordless telephones to be used as emergency notification devices.

R.61-51.J.14(a)

Revised language on water quality testing.

R.61-51.J.14(d)

Revised language for consistency.

R.61-51.J.14(e)

Added language requiring CDC protocols to be used during biological contamination incidents.

R.61-51.J.15

Added language establishing maintenance requirements.

R.61-51.J.16(a)

Revised language on temperature to include spa’s, lazy rivers, and other pool types.

R.61-51.J.18(b)

Revised language on recording operator visits in bound log books.

R.61-51.J.19

Added and revised language requiring depth markers be brought up to current regulations when recoating or resurfacing the pool interior or deck.

R.61-51.J.21(a)

Revised language on accessibility of pools for inspections.

R.61-51.J.21(b)

Revised language on responsibility for correction of items not in compliance.

R.61-51.J.22

Added and revised language regarding pool closures.

R.61-51.J.24

Revised language on variance requests.

**Issue 3) Revise specific chemical levels for better treatment and other health related issues.**

**SECTION** **CHANGE**

R.61-51.J.14(b)

Changed the water chemistry requirements.

R.61-51.J.14(c)

Added language reducing cyanuric acid levels over three (3) years.

**Issue 4) Revise to include acceptance of operator certification by the Department.**

**SECTION** **CHANGE**

R.61-51.J.18(a)

Revised language allowing operator licensing by a party approved by the Department.

**Issue 5) Stylistic changes which may include corrections for: readability, grammar, punctuation, typography, codification, references, and language style.**

**SECTION** **CHANGE**

R.61-51.A.6

Added language for clarification.

R.61-51.A.7 - A.63

Renumber definitions.

R.61-51.B.7

Revised language to ensure consistency.

R.61-51.C.4

Revised language for consistency.

R.61-51.C.13

Revised language for consistency.

R.61-51.C.14

Revised language for consistency.

R.61-51.C.18

Revised language for consistency.

R.61-51.C.20

Revised language for consistency.

R.61-51.C.28(c)

enumbered citation for consistency.

R.61-51.C.28(d)

Renumbered citation for consistency.

R.61-51.C.28(e)

Renumbered citation for consistency.

R.61-51.C.28(f)

Renumbered citation for consistency.

R.61-51.D.2(a)

Revised language for consistency.

R.61-51.D2(a)(i)

Revised language for consistency.

R.61-51.E.2

Revised language to update citation and bottom slope requirements.

R.61-51.J.9

Revised language for legal consistency.

R.61-51.J.10

Revised language for legal consistency.

R.61-51.J.11(h)

Revised citation for consistency.

R.61-51.J.11(i)

Revised citation for consistency.

R.61-51.J.11(j)

Revised citation for consistency.

R.61-51.J.12

Revised citation for consistency.

R.61-51.J.16(b)(ii)

Revised language for consistency.

R.61-51.J.16(b)(iii)

Revised language for consistency.

R.61-51.J.17(a)

Revised language for consistency.

R.61-51.J.17(b)

Revised language for consistency.

R.61-51.K.1(a)(ii)

Added language to clarify Type B pool closures.

R.61-51.K.1(a)(vii)

Revised language to update pool closure for chlorine.

R.61-51.K.1(a)(viii)

Revised language to update pool closure for pH.

R.61-51.K.1(a)(ix)

Revised language to update pool closure for non-operational equipment.

R.61-51.K.1(a)(xiii)

Revised language for clarification.

R.61-51.K.1(a)(xv)

Revised language to update pool closure for not meeting pool operator requirements.

R.61-51.K.1(a)(xvi)

Added language to require pool closure for fencing and gating being out of compliance.

R.61-51.K.1(b)

Revised language for legal consistency.

R.61-51.K.1(c)

Revised language for legal consistency.

R.61-51.K.1(d)

Revised language for legal consistency and removing requirement for four pool closures before enforcement referral.

**Issue 6) Include language on the appeals process to comply with requirements of the S.C Administrative Procedures Act.**

**SECTION** **CHANGE**

R.61-51.M.

Added language to include the statutory requirements for appeals.

**Instructions:** Amend R.61-51 pursuant to each individual instruction provided with the text below:

**Text:**

**Replace definition R.61-51.A.3 to read:**

 3. "Attendant" means a person, 16 years of age or older, who supervises or controls the entrance, exit or other activities of pool patrons. An attendant may not act as a lifeguard.

**Add new definition R.61-51.A.5 to read:**

 5. “Bulk Storage” means any chemical storage container greater than fifteen (15) gallons of liquid, or solid chemical greater than the maximum capacity of the feeder.

**Add new definition R.61-51.A.6 to read:**

 6. “Certified Public Pool Operator” means someone who holds a valid South Carolina Pool Operator Certificate from a party approved by the Department.

**Replace and renumber definition R.61-51.A.6 to read:**

 7. "Change Order" means written notification submitted to the Department on a Swimming Pool Change Order Request Form detailing any proposed pool interior coatings, equipment changes or material alterations which do not conform to the original approved plans, specifications, or previously approved change order.

**Renumber definitions R.61-51.A.7 to R.61-51.A.23 to read:**

 8. “Competition Pool” means a pool designed to be routinely used to host organized swim competitions such as those sponsored by colleges, universities, swim leagues, and swim clubs.

 9. “Coping” means the covering which joins the top of the pool wall with the pool decking and is considered part of the minimum pool deck width requirement. If cantilevered deck is employed, the last twelve (12) inches of this deck next to the pool wall shall be considered coping.

 10. “Contiguous” means within a one (1) foot horizontal distance.

 11. “Department” means the South Carolina Department of Health and Environmental Control.

 12. “Diatomaceous Earth” is a type of filter media that is obtained from the fossil remains of microscopic marine plants and is used in a thin coating over filter septa or bags.

 13. “Disinfection Equipment” means any device used to supply approved disinfectants to the pool water.

 14. “Elevated Structure” means any structure located within a ten (10) foot horizontal distance from the pool edge, which is intended for patron access, and may unintentionally serve as a raised platform for diving or jumping into a pool. This includes, but is not limited to elevated walkways, stairs and landings, balconies, or any construction which is interpreted by the Department as a structure intended for use by patrons that could be used for diving or jumping into a pool. This does not include pool equipment designed for, and approved by the department to be used for diving or jumping into a pool.

 15. “Emergency Equipment” means a backboard with straps, two (2) blankets, cervical collars in adult and infant sizes or a commercial head immobilizer.

 16. “Filter” means any apparatus containing filter media which is intended to physically remove suspended particles from pool water.

 17. “Filter Backwash Piping” means the piping which extends from the backwash outlet of the filter to its terminus at the point of disposal.

 18. “Filter Media” means the fine material which entraps the suspended particles as the water passes through the filter.

 19. “First Aid Kit” means a water resistant, clearly labeled, latched container providing sufficient first-aid equipment to treat up to fifteen (15) people. The kit will contain as a minimum: alcohol wipes, antibiotic ointment, assorted adhesive bandages, a breathing barrier, a cold pack, gauze, and disposable gloves.

 20. “Flow Meter” means a device installed on the pool return pipe (discharge line from filter) to indicate recirculation flow of the pool in gallons per minute (gpm).

 21. “gpm” means gallons per minute.

 22. “Hand feeding” means the dispensing of any pool chemical manually into the pool.

 23. “Heater” means a device through which pool water is circulated to increase the temperature of the water which is specifically designed for pool or spa use.

 24. “Hose Bibb” means water faucet with male screw threads to which a hose is attached.

**Add new definition R.61-51.A.25 to read:**

 25. “Hybrid Pool” means any pool that has multiple intended use zones such as kiddie play zones, slide landing zones, lazy river zones, and swim zones.

**Renumber definitions R.61-51.A.24 to R.61-51.A.42 to read:**

 26. “Hydrostatic Relief Valve” means a device, usually installed in the main drains, used to relieve ground water pressure imposed on the outer shell of the pool.

 27. “Kiddie Play Park” means wading (kiddie) or spray pools intended to be used exclusively by children where climb-on toys and attractions are provided.

 28. “Lifeguard” means a person having the qualifications of and possessing a current American Red Cross, YMCA, or equivalent Lifeguard Certificate, current First Aid Certificate and current CPR (which includes adult, child, and infant) Certificate.

 29. “Lifeline Anchors” means the devices recessed in the wall of the pool at the transition point between shallow and deep areas.

 30. “Life Saving Equipment Unit” means a coast guard approved ring buoy at least twenty (20) inches in diameter attached to a throwing line having a length of one and one-half (1 1/2) times the width of the pool up to a fifty (50) feet maximum length of rope and a life hook of the shepherd's crook style with minimum twelve (12) foot handle attached with stainless steel nut and bolt. For Type “A” and “E” pools a rescue tube may be used in place of a shepherd’s crook and life ring.

 31. “Main Body of the Pool” means the major portion of the pool body excluding any recesses, niches, coves, etc.

 32. “Main Drain” means the outlet(s) at the bottom of the pool. These outlets are suction/gravity outlets connected to the recirculation piping.

 33. “Main Drain Piping” means the piping connecting the main drain to either the pump suction, surge tank, or the vacuum filter.

 34. “Major Fraction” means twenty-five (25) percent or more.

 35. “Minimum Flow Rate” means the least flow of water through the water treatment system that must be maintained to provide adequate treatment and is calculated by dividing the volume of the pool, in gallons, by the required turnover time, in minutes (gallons/minutes).

 36. “Normal Operating Level” means the water level at one-half (1/2) the skimmer throat depth or at the gutter lip.

 37. “Non-Slip” means having a coefficient of friction of 0.60 or greater when wetted for manufactured tile; or broom finish or other textured finish for concrete as recognized by the American Concrete Institute; or for other surfaces, incorporated features designed to prevent slippage.

 38. “Obstruction” means any structure or object which blocks or limits access to the perimeter area of the pool. This includes but is not limited to planters, walls, water features, pillars, etc.

 39. “Overflow Gutter” means a device at the normal water level which is used as an overflow and to skim the pool surface, in lieu of a surface skimmer.

 40. “Owner” means the owner of the facility or his/her designated agent such as a property manager or on-site representative.

 41. “Pool Area” means any area located within the fenced perimeter of the pool to include but not limited to the pool deck. The pool deck will define this area for facilities which do not have a perimeter fence. Where a fence is not required the pool area will include but not be limited to the pool deck.

 42. “Pool Deck” means the paved area around the pool which is specifically constructed for use by swimmers.

 43. “Pool Depth” means the distance between the floor of the pool and the normal operating level when the pool is in use.

 44. “Portable Kiddie Slide” means a single flume slide with a starting height no greater than five (5) feet above the deck, made as a complete unit by a single manufacturer, and intended for use by children, which may be moved when not in use.

**Replace and renumber R.61-51.A.43 to read:**

 45. "Public Swimming Pool or pool" means an artificial structure used to impound water either above or below the ground surface to provide for such recreational uses as bathing, swimming, diving, wading, spraying, sliding, floating, rafting, or other similar usage which is not built in connection with a single family residence, or duplex (two living units within a single structure) and the use of which is not confined to the family of the residence and their private guests, or which is not owned, constructed, operated, or maintained by a church, synagogue, or religious organization, or facility exempted under Title 45, Chapter 4, of the South Carolina Bed and Breakfast Act. Public swimming pools are listed in the following categories based upon specific characteristics of size, usage, and other factors:

 (a) Type “A” means any pool open to the general public, except for Type “E” pools, which does not require a membership or that a person be a guest of a member to gain entrance to the pool, or is not operated solely for and in conjunction with a residential development or a place of lodging.

 (b) Type “B” means swimming pools at hotels, motels, apartments, mobile home parks, condominium developments, country clubs, schools, swim clubs, health clubs, campgrounds, subdivisions and other pools of similar usage. Lazy rivers constructed at the above facilities shall be considered Type “B” pools.

 (c) Type “C” means wading pools, kiddie pools, spray pools, spray decks, or wet decks.

 (d) Type “D” means treatment pools, health spa pools and hot tubs. Rehabilitation or therapy pools located at hospitals, sports therapy clinics, doctors offices, or other medical facilities which will be used solely for therapy and rehabilitation purposes and under the supervision of a physical therapist or other qualified medical personnel are excluded from this regulation.

 (e) Type "E" means those pools at water parks such as water flumes, water slides, lazy rivers, wave parks, inner tube rides, kiddie play parks, etc. Type “E” also means pools at subdivisions that have a slide that is in use, or not able to be secured to prevent access when not in use. If the slide can be secured to prevent access when not in use, the pool may be open as a type “B” pool when the slide is not in operation and secured.

 (f) Type “F” means special purpose pools used exclusively for limited activities such as scuba diving lessons, helmet diving lessons, underwater work training, or similar, limited uses.

 (g) Type “G” means hybrid pool.

**Renumber definitions R.61-51.A.44 to R.61-51.A.59 to read:**

 46. “Recirculation Piping” means the piping from the pool to the filter and return to the pool, through which the water circulates.

 47. “Recirculation Pump” means the pump(s) that provide for complete recirculation of pool water through the recirculation piping and filter(s) at a prescribed rate of turnover.

 48. “Recirculation System” means a system consisting of pumps, motors, piping, filters, inlets, outlets, disinfecting and other water conditioning equipment and necessary accessories.

 49. “Residential Swimming Pool” means any privately owned swimming pool which is built in connection with a single family residence, the use of which shall be confined to the family of the owner and his guests, shall not include any type of cooperative housing or joint tenancy of two or more families, and shall be located within the same property boundary as the family dwelling building to which it serves. Pools constructed in conjunction with a single-family rental unit will be considered a residential pool.

 50. “Return Inlets” means the fittings or openings through which water is returned to the pool.

 51. “Return Piping” means the piping which carries the filtered water under pressure from the filter to the pool.

 52. “Shallow End of Pool” means the portion of the pool with water depths of four (4) feet or less.

 53. “Spray Pool” or spray deck or wet deck means an artificial structure used to impound water either above or below the ground surface into which treated water is sprayed and recirculated.

 54. “Surface Skimmer” means a device used to skim the pool over a self-adjusting weir.

 55. “Surface Skimmer Piping” means the piping that carries water from the skimmer to the pump suction, to include the equalizer piping.

 56. “Surge Tank” means an approved fixture or device of such material, shape, and capacity as to adequately receive the surge water from indirect or direct overflows, so constructed and located as to be easily cleaned.

 57. “Technical Assistance Visit (TAV)” means a comprehensive on-site evaluation by the Department of a public pool to include pool area and associated equipment, operation and maintenance, and a review of current season inspections.

 58. “Transition Point” means the point in a pool where the slope changes from one (1) foot. vertical to ten (10) feet horizontal (1:10) maximum to one (1) foot vertical to three (3) feet horizontal (1:3) maximum. This point may separate the deep end from the shallow end.

 59. “Turnover Time” means the period of time (usually hours) required to circulate the complete volume of water in a pool through the recirculation system.

 60. “Vacuum Outlets” means the fitting in the pool which is used as an outlet for connecting the underwater suction cleaning equipment.

 61. “Vacuum Piping” means the piping which connects the vacuum fitting to the pump suction.

**Add new definition R.61-51.A.62 to read:**

 62. “Vertical” is interpreted to permit poolside wall slopes not greater than one foot horizontal for each five feet of height of the poolside wall (79 degrees).

**Renumber definitions R.61-51.A.60 to R.61-51.A.63 to read:**

 63. “Wading (Kiddie) Pool” means a pool intended to be used exclusively by children for wading.

 64. “Water Course, Water Slides or Water Flumes” means any pool using a water flume, channel, or slide for purposes of sliding and landing in an area filled with water (this does not include commercially manufactured swimming pool sliding boards).

 65. “Well-Point System” means perforated pipe(s) placed in a gravel pit under the deepest point of the pool, where a pump may be connected to remove excess ground water from beneath the pool.

 66. “Zero Depth Entry Pool” means a pool with a starting water depth of zero (0) feet which uniformly slopes to a deeper water depth.

**Add new definition R.61-51.A.67 to read:**

 67. “Zone” means any pool use type as it relates to the intended use of a specific portion of a hybrid pool (kiddie play zones, slide landing zones, lazy river zones, and swim zones). Zone areas and volumes must be clearly delineated on the plans and specifications.

**Replace R.61-51.B.4(a) to read:**

 (a) Plans and specifications shall be prepared, stamped, dated and signed by an architect or engineer registered in the State of South Carolina. Once construction starts, the pool contractor must maintain a copy of the DHEC-approved plans and specifications on the job site until the final inspection.

**Add new R.61-51.B.5(c) to read:**

 (c) Fees. The appropriate fee if any must be submitted with the Change Order Request.

**Replace R.61-51.B.7 to read:**

 7. Final Approval. No newly constructed or altered public swimming pool shall be placed into operation until a final inspection of the facility has been conducted and a written approval to be placed into operation is issued by the Department. Before the final inspection can be conducted three (3) letters must be submitted, one by the pool contractor; one by the general contractor, owner or his designated agent; and one by the project architect or engineer; certifying that the public swimming pool, bathhouse, minimum toilet facilities, if required, fence, equipment room, area lighting, if provided, and other applicable items have been constructed according to approved plans and specifications and is ready for the final inspection. All three letters must be received by the Department before a final inspection will be conducted. In addition to the three certification letters, the engineer and or the architect or their representative must complete a copy of the Department’s final inspection checklist, and it must be submitted to the Department prior to the final inspection. A contractor's and owner's representative must be present at the time of the final inspection.

**Replace R.61-51.C.4 to read:**

 4. Location. The location of the pool will in no way hinder the operation for which it is designed nor adversely affect bather's safety or water quality. Outdoor pools must not be located where they will be exposed to excessive pollution by dust, smoke, soot, or other undesirable substances. If any portion of the pool is located within ten (10) feet horizontally of any second story balcony or any other elevated structure of which the floor elevation is between two (2) and thirty (30) feet above the pool deck, a protective barrier must be provided on said balcony or elevated structure. This barrier must be a minimum of five (5) feet in height and have no openings within this barrier greater than 4 inches in width. Buildings or structures at the pool deck level only within ten (10) feet of the pool waterline that have glazing must utilize tempered safety glass or other shatter resistant safety glazing for any doors and windows. All indoor pools must be located in adequately ventilated areas.

**Replace R.61-51.C.6(b) to read:**

 (b) Pool decks required in (a) above must be constructed of broom finish concrete or other material which is as equal in strength and durability. The deck must be non-slip, impervious and no hazard to bare feet. The deck must slope The deck must slope one-quarter (1/4) inch to five-eighths (5/8) inches per foot per foot away from the pool. No wood decking or carpet is allowed within the required minimum deck widths. If concrete pavers are used for pool decking, they must be installed per the Interlocking Concrete Paver Institute (ICPI) code.

**Replace R.61-51.C.6(f) to read:**

 (f) Hose bibbs must be provided around the perimeter of the deck area at intervals such that all parts of the deck can be reached with a one hundred (100) foot hose. A hose bibb may be located in the equipment room. All hose bibbs in the pool area must be isolated from the public water supply by an ASSE 1024 listed residential dual check or other Department approved backflow prevention device. If a common ASSE 1024 listed residential dual check valve is installed, it must be located in either the equipment room, or in a valve box such that it can be maintained and or replaced as necessary. Also, a shutoff valve must be installed downstream of the backflow device so the Department can verify that all hose bibs are protected by the common backflow device. All backflow devices must be installed so that they are visible at the time of the final inspection.

**Replace R.61-51.C.7 to read:**

 7. Depth Markers. Permanent depth markers must be plainly marked at or above the water surface on the vertical pool wall and on the edge of the coping or deck next to the pool, at a maximum and minimum point and at not more than two (2) foot intermediate increments of depth. Depth markers must be spaced at not more than twenty (20) foot intervals on center, as measured around the perimeter of the pool. A minimum of three (3) sets of evenly spaced depth markers are required for type “C” and “D” pools. One set of markers must be located adjacent to the steps or handrail. Depth markers must be in numerals and letters of four (4) inch minimum height and of a light-colored background (i.e., having a reflectance of fifty-five (55) percent or greater) with dark, contrasting lettering. Alternative designs, having sufficient contrast, will be considered on case-by-case basis. Depth markers must be on both of the sides and ends of the pool. Depths must be indicated in feet to the nearest one-half (1/2) foot. The abbreviation "ft." or word "feet" must be included. A total of twelve (12) inches of white background tile must be included as part of each depth marker(s). Depth markers are required for all pools, kiddie pools, spas, hot tubs, special water park pools, etc. Kiddie spray decks do not require depth markers. Depth markers on the deck must be non-slip and must start within fifteen (15) inches of the pool edge. In pools requiring "No Diving" signs, a single six inch by six inch universal no diving tile must be co-located with each set of deck depth marker tiles. Metric depth markers may be installed at any facility in addition to the standard markers required above. Depth markers for pools with multiple slopes (bowl shaped and diving wells) must accurately reflect the minimum depth at the edge of the pool and the maximum depth at the center of the pool and separated by a hyphen. For example, a pool sloping from all sides to the center would require the installation of the following depth markers, "3 FT - 5 FT". Alternative types of depth markers will be considered on a case by case basis for pools using stainless steel gutters or fiberglass shells. Depth markers shall be verified by measuring the depth at a distance of two (2) feet from the edge of the pool.

**Replace R.61-51.C.8 to read:**

 8. Fences.

 (a) All outdoor Type "A" and "E" public swimming pools (including the deck area) must be enclosed by a chain link fence or equal barrier of minimum six (6) foot height to prevent trespassing and to provide safety and cleanliness of the water. Type B and Type E pools that have a slide that is only in use when lifeguards are present must have the entry and exit points of the slide secured by either a six (6) foot high fence, or another method approved by the Department. All openings in the barrier must be equipped with gates or doors, with latches, that close automatically and can be locked. No openings in the fence shall be large enough for a four (4) inch sphere to pass. Local building codes for the pool location may require a smaller fence opening.

 (b) All outdoor Type "B", "C", "D" and "F" public swimming pools (including the deck area) shall be enclosed by a minimum four foot fence as measured from the exterior of the pool area. All openings in the barrier must be equipped with gates or doors, with latches, that close and latch automatically and can be locked. Courtyard fencing may not be adequate to constitute fencing of the pool area. No openings in the fence shall be large enough for a four (4) inch sphere to pass. Local building codes for the pool location may require a smaller fence opening.

**Replace R.61-51.C.9 to read:**

 9. Equipment Room.

 (a) A suitable equipment room shall be provided to house all pool equipment to prevent unauthorized access. The room shall be of substantial and enduring construction to protect the equipment from damp, corrosive environment. This room shall have a roof, be at least eight (8) feet high and have a standard size lockable entrance door. Where equipment rooms are constructed at a different elevation than the surroundings, permanent steps should be provided for entry. The equipment room must be sized so that all equipment is accessible for ease of operation and inspection. The equipment room door must be sized to allow for the largest filter in the room to pass through. At least three feet of clear walkway must be provided to allow access to the equipment. The room must have at least one (1) watt of artificial light for each square foot of floor area with a minimum of 100 watts incandescent, or equivalent. Continuously operated forced ventilation must be provided during pool operation so that the equipment room has a minimum of ten (10) complete air changes per hour and is vented to the outside and away from the pool. The light switch must be separate from the fan switch if a fan switch is provided. The floor shall be concrete and shall include necessary sumps. The floors must be sloped to drain to either floor drains or to the sump. All sump pits must be provided with a protective grate or covering capable of supporting a person. Sump pits that are protected by walls extending three (3) feet or more above the floor elevation do not have to have a protective grate. The purpose of this room is for recirculation system equipment only and storage of any other material or equipment is prohibited. Equipment rooms constructed below grade must be provided with reasonable access so as not to be considered a confined space. An emergency disconnect (e.g. shunt trip breaker) switch that disconnects all pumps in the equipment room must be located on the pool deck and clearly labeled with a minimum of four (4) inch red letters on a white background that states “Pool Emergency Cut-Off Switch”.

**Add new R.61-51.C.9(c) to read:**

 (c) All equipment must be installed per the manufacturer’s recommendations, including equipment clearances.

**Replace R.61-51.C.10 to read:**

 10. Chemical Storage. All pool chemicals must be housed in a separate room from the equipment room. The chemical storage room must have at least one (1) watt of artificial light for each square foot of floor area with a minimum of 100 watts incandescent or equivalent light. Continuously operated forced ventilation must be provided so that the chemical storage room has a minimum of ten (10) complete air changes per hour and is vented to the outside. The light switch must be separate from the fan switch if a fan switch is provided. The pool chemical room must be kept dry and locked at all times. Only chemicals used in the operation of the pool shall be stored in this room. Chemical storage rooms constructed below grade must be provided with reasonable access so as not to be considered a confined space.

**Replace R.61-51.C.11 to read:**

 11. Drinking Fountain. At least one (1) drinking fountain shall be provided within fifty (50) feet of the pool at all public pools. All electrical drinking water fountain wiring must be in accordance with the National Electrical Code (NEC).

**Replace R.61-51.C.12 to read:**

 12. Emergency Notification Device. A toll free emergency notification device to notify emergency personnel must be provided within a two hundred (200) foot walking distance of the pool and in a location that it is easily accessible during the hours that the pool is in operation. Only hard-wired notification devices are acceptable to the Department. Cellular and or cordless telephones are not an acceptable alternative to hard-wired emergency notification devices unless approved by the Department in writing.

**Replace R.61-51.C.13 to read:**

 13. Bathhouse Facilities. Dressing and sanitary plumbing facilities must be provided for all Type "A" and "E" public swimming pools that charge for admission. Bathhouse facilities shall be located within two hundred (200) feet of the swimming pool. Applicable Americans with Disabilities Act guidelines shall be observed. Every bathhouse must be provided with separate facilities for each sex with no inter-connection between the male and female facilities. The rooms must be so developed and planned that good sanitation can be maintained throughout the building at all times.

**Replace R.61-51.C.14(a) to read:**

 14. Minimum Toilet Facilities.

 (a) Minimum toilet facilities shall be provided within a three hundred (300) foot walking distance of Type "B", "C", "D", "F" pools and Type “A” and “E” facilities that do not charge for admission. Minimum toilet facilities must consist of at least one (1) lavatory and one (1) water closet for each sex. Floors must be of impervious materials and relatively smooth, but not have a slick finish. Each room must be furnished with a minimum of 60 watts of incandescent light and have adequate ventilation. Soap dispensers for providing either liquid or powdered soap must be provided at each lavatory or between each pair of lavatories. Mirrors, if provided, must be made of shatter-resistant material. Single service paper towel dispensers or blower type hand dryers must be provided. Toilet paper holders must be provided at each water closet. Floors must be well drained to prevent standing water. Carpet shall not be used on the floors.

**Replace R.61-51.C.15(c) to read:**

 (c) Cartridge Filters. Filters must be approved by and bear the seal of the National Sanitation Foundation. The filters must be of a disposable or washable element. Surface types must have a maximum flow rate of 0.375 gallons per minute for each square foot of effective filter area. A spare cartridge filter must be provided at each site where these types of filters are used. A sump pit and or hard piped drain line must be installed to handle the design flow rate of the recirculation system. If connected to a sanitary sewer system or municipal separate storm sewer system, specific approval must be obtained from the municipality or sewer authority for such discharge.

**Replace R.61-51.C.16 to read:**

 16. Filter Backwash. Backwash from the filter(s) must be piped to a disposal pit, tile field, or other disposal method approved by the Department. If the backwash water is to be discharged to a sanitary sewer system or municipal separate storm sewer system, specific approval must be obtained from the municipality or sewer authority for such discharge. If the method of backwash will be to an on-site storm sewer system, the location of the discharge and the name and distance of any receiving body of water must be identified on the project plans. Any discharge of backwash water to a water body must receive prior approval from the Department. All pools that directly discharge backwash water to waters of the State or stocked ponds must be equipped with an appropriately sized dechlorination device. If the method of backwash disposal will be to a pit or tile field, the location of discharge must be identified on the project plans and the receptacle must be adequately sized to accept the pool drainage. Also, a three (3) minute backwash cycle must be conducted at the time of the final inspection to ensure that there is adequate capacity of the disposal system. A minimum six (6) inch air gap must be maintained at the discharge point or two (2) single in-line check valves must be installed in the backwash line. The receptacle must be sufficiently sized to accommodate the backwash flow.

**Replace R.61-51.C.17 to read:**

 17. Pool Drainage. The method and location of discharge employed to drain the pool must be included on the project plans and the receptacle must be adequately sized to accept the pool drainage. If the pool drains to a sanitary sewer system or municipal separate storm sewer system, specific approval must be obtained from the municipality or sewer authority for such discharge.

**Replace R.61-51.C.18 to read:**

 18. Rate of Flow Indicator. Every public swimming pool must be provided with a rate of flow indicator located on the discharge line from the filters. Rate of flow indicators must be accurate to + or - 5% and installed according to manufacturer's instructions. Dimensions must be shown on the schematic diagram, indicating the actual location of the rate of flow indicator. The rate of flow indicator must be calibrated for and provided with a scale reading in gallons per minute and shall have an upper range at least ten (10) percent above the maximum design flow rate. The scale resolution of the meter must fall within the design flow of the system. The activating element of the flow indicators must be installed in the filter effluent line. The flow meter must be mounted in a location such that it can be easily read.

**Replace R.61-51.C.20 to read:**

 20. Pump and Motor. Pumps and motors under five (5) horsepower must be National Sanitation Foundation (NSF) approved or must be equally listed by a Testing Lab approved by the Department. The pump and motor must be of adequate size and capacity to provide the required pool turnover rate and should be located so as to eliminate the need for priming. If pump or suction piping is located above the overflow level of the pool, the pump must be self-priming. The pump and motor must be designed to supply, without overloading, the required design rate at a total dynamic head sufficient to overcome the friction losses in the piping, appurtenances, and the maximum headloss through the filter(s). Unless headloss calculations are provided by the designing engineer, pump design must be based on an assumed total dynamic head of fifty five (55) feet of water. All pumps must be provided with a corrosion-resistant strainer to remove solids, debris, hair, lint, etc. Pool pump motors must have a directly accessible on/off switch within three (3) feet horizontal distance of the pump(s). Pump(s) shall not be activated by a panel circuit breaker. All pumps shall be installed in accordance with the National Electrical Code (NEC). A device for regulating the rate of flow may be provided in the recirculation pump discharge piping.

**Replace R.61-51.C.21 to read:**

 21. Water Treatment. Equipment for halogen disinfection (chlorine, bromine) must be provided on all pools. This equipment must be approved by and bear the seal of the National Sanitation Foundation. The equipment must be of such capacity to feed one (1) pound of free available chlorine per ten-thousand (10,000) gallons of pool volume per twenty-four (24) hour period in all pools. The equipment must be operable at all times that the recirculation system is in operation. This equipment must be installed in accordance with the approved manufacturer's instructions. The equipment manufacturer's name and model number of chemical feeder, as well as the size and number of feeding tanks must be furnished. All chemical feed pumps must be wired directly to the recirculation pump such that when recirculation flow stops chemical feed is halted. GAS CHLORINATION IS NOT PERMITTED. No chemical may be manually fed while the pool is open for operation. Supplemental water treatment systems may be approved on a case by case basis. Chemical feed containers for use with liquid feed systems, in excess of fifteen (15) gallons, must be provided with spill containment and must be clearly labeled. A detailed drawing must be included on the project plans. Ultraviolet (UV) or ozone disinfection may be added to any pool in addition to the minimum required disinfection.

**Replace R.61-51.C.25(a) to read:**

 (a) All inlets and outlets must be provided and arranged to produce complete recirculation of water and the maintenance of uniform disinfectant throughout the pool. Relative placement of inlets and skimmers shall not produce short circuiting of the recirculation water. There must be at least four (4) return inlets, except for facilities covered under Section E and F. Wall return inlets must have variable orifice, directional flow fittings so that the flow pattern can be adjusted. Floor return inlets may be installed if they are uniformly spaced, if the number of floor return inlets provided meets the requirements of R.61-51.C.25(b). The maximum flow per inlet for all recirculation and booster system return inlets is twenty-five (25) gpm or a velocity of no greater than forty (40) feet per second per inlet. A minimum of ten (10) gpm must be provided per inlet. If necessary, the recirculation system shall be upgraded to meet the ten (10) gallon per minute requirement to ensure proper distribution of disinfectant.

**Add new R.61-51.C.26(b)(vii) to read:**

 (vii) Where concrete pavers are used for decking, the skimmers must be anchored in place with concrete to prevent them from settling.

**Replace R.61-51.C.27(b) to read:**

 (b) Life Saving Equipment. All pools must be equipped with at least one (1) unit of life saving equipment must be inside the fence and be within two hundred (200) feet walking distance from any point on the pool perimeter. This equipment must be located within the pool area and inside the fence. One (1) unit of life saving equipment must be provided for each lifeguard chair. Life saving equipment is not required at Type "C" and "D" pools. All life saving equipment must be visible from the deck and unimpeded access must be provided.

**Replace R.61-51.C.27(d) to read:**

 (d) First Aid Kit. All Type “A” and “E” pools must have a first aid kit. This kit must be readily accessible when the pool is open to the public.

**Add new R.61-51.C.28(a) to read:**

 (a) All signs must be clearly displayed around the pool and must be free of obstructions including vegetation.

**Replace R.61-51.C.28(b) to read:**

 (b) Pool Rules Sign. At least one (1) "Pool Rules" sign for informational purposes must be posted such that the sign is visible from all entrance points of the pool and must contain, as a minimum, the items listed below, with the blanks reflected in (xii) through (xvi) below filled in before authorized operation:

 (i) There should be no solo swimming.

 (ii) There should be no running, boisterous or rough play.

 (iii) No person under the influence of alcohol or drugs should use the pool.

 (iv) There should be no spitting or blowing nose in pool.

 (v) Persons with diarrheal illness or nausea should not enter the pool.

 (vi) Persons with skin, eye, ear or respiratory infections should not enter the pool.

 (vii) Persons with open lesions or wounds should not enter the pool.

 (viii) No animals or pets allowed in the pool.

 (ix) No glass allowed in the pool or on the deck.

 (x) No children should be in the pool without supervision.

 (xi) You should take a shower before entering the pool.

 (xii) This pool is open from a.m. to p.m.

 (xiii) The maximum number of swimmers allowed in the pool is .

 (xiv) A first aid kit is located .

 (xv) An emergency phone (or other notification device) is located .

**Add new R.61-51.C.28(b)(xvi) to read:**

 (xvi) Life saving equipment is located at .

**Replace R.61-51.C.28(c) to read:**

 (c) No Diving Sign. In addition to the above sign, permanent and separate "NO DIVING ALLOWED" signs must be displayed in conspicuous locations at all pools of surface area greater than two hundred (200) square feet and not having dimensions adequate for diving. The sign must read in all capitalized letters "SHALLOW WATER - NO DIVING ALLOWED" and must have minimum four (4) inch lettering for "SHALLOW WATER" and six (6) inch lettering for "NO DIVING ALLOWED". Two (2) or more signs must be provided so as to be clearly visible to anyone entering the pool. This sign may be required on Type "C", "D", "E", "F", and “G” pools if the Department decides the signs are applicable.

**Replace R.61-51.C.28(d) to read:**

 (d) No Lifeguard on Duty Sign. In addition to the above signs, permanent and separate "NO LIFEGUARD ON DUTY" signs must be displayed in conspicuous locations. The sign must read in all capitalized letters "NO LIFEGUARD ON DUTY - SWIM AT YOUR OWN RISK" and must have minimum six (6) inch lettering for "NO LIFEGUARD ON DUTY" and must have minimum four (4) inch lettering for "SWIM AT YOUR OWN RISK". Two (2) or more signs must be provided and be clearly visible to anyone entering the pool. These signs are required on all Type "B", "C", "D", "F", and “G” pools that do not have lifeguards.

**Replace R.61-51.C.28(e); subitems (i) through (v) remain unchanged:**

 (e) Spa Caution Sign. In addition to a pool rules sign, heated spas must also have a waterproof sign with bold lettering which is clearly visible and contains the following warning statement:

CAUTION

 (i) - (v)

**Replace R.61-51.C.28(f) to read:**

 (f) Pool Operator Sign. A sign must be posted or language must be added to the "Pool Rules" sign which reads, "The Pool Operator at this facility is \_\_\_\_\_\_\_\_\_\_ State license number \_\_\_\_\_\_\_\_\_\_."

**Replace R.61-51.C.29(a) to read:**

 (a) A minimum of two (2) main drains must be provided on the bottom floor of the pool with at least one (1) at the lowest point of the floor to completely drain the entire pool. All such outlets must be interconnected and each drain must be directly connected to the main drain line. The interconnecting line must be adequately sized to accommodate one hundred (100) percent of the recirculation or booster pump flow. The main drain spacing must not be greater than twenty (20) feet nor less than three (3) feet on centers, nor shall they be more than fifteen (15) feet from any side wall. Interconnecting and outlet pipes must be flush with side wall and/or floor of main drain sump. If the pool is intended for fire protection the main drains and piping associated must be sized appropriately and shown on the plans.

**Replace R.61-51.C.30 to read:**

 30. Overflow. Overflows are required for all indoor pools having a volume of fifteen hundred (1,500) gallons or greater. If overflow connections are not provided in skimmers or surge tanks, some type of overflow must be built into the pool wall which will be of sufficient size to carry off water that could be supplied by the fill spout, rainfall, or automatic fill device. All such overflow devices must drain to an approved location and must have a minimum six (6) inch air gap or check valve. Overflows must discharge to a location that drains away from the pool area such that the discharge remains visible when overflowing.

**Replace R.61-51.C.35 to read:**

 35. Steps and Ladders. At least one (1) ladder/steps must be provided for each seventy-five (75) feet of pool perimeter. Two (2) or more ladders/steps must be provided for all Type "A" and "B" pools. All ladders must have a minimum of three (3) tread design and must include treads of non-slip construction. Steps shall have a minimum tread width of twelve (12) inches, a maximum rise of eleven (11) inches and a minimum length of thirty (30) inches. All step risers must be of uniform height (within one half (1/2) inch of each other) with the exception of the bottom riser. All step treads must be level with a tolerance for step slope of one half (1/2) inch. When radial steps are to be constructed, the minimum standards are shown in figures 1, 2 and 3 as follows. All steps shall be non-slip and constructed in the shallow end of the pool only. Permanent black or dark colored edge stripes such as tile must mark steps. The edge stripe must be a minimum of two (2) inches wide, must be provided the entire length of each step, must be non-slip in texture, and must be installed on the run of each step so as to be clearly visible by patrons upon entering the pool. The step edge stripe must start within one (1) inch from the edge of the step. Where steps are used, a minimum of one (1) handrail must be installed. All handrails must be securely anchored, extend over and anchor into the bottom step, and be easily accessible for exiting the pool. No portion of the handrail shall be closer than three (3) feet from any other handrail. No figure four type handrails may be installed except on fiberglass pools and Type “C” pools. Where the average step length, as measured from the front edge of the middle step, is over ten (10) feet in width there shall be one (1) additional handrail for every average ten (10) feet of step width or major fraction thereof and they shall be evenly spaced. When tanning ledges are provided, the maximum water depth shall be twelve (12) inches. If the distance from the tanning ledge to the coping exceeds eleven (11) inches, then a single step and handrail must be provided. Handrails must be of the removable type. Ladders and handrails shall be designed so as to be secured tightly in place when the pool is in operation unless they are removed for certain aquatic events. Grab rail recess step type ladders can be used in lieu of the standard three (3) tread ladder.

**Add new R.61-51.C.39 to read:**

 39. Surge tank. Where surge tanks are provided, a means to clean and maintain the tank shall be shown on the plans. Main drains must be located in the bottom of the tank.

**Replace introductory title to R.61-51.D to read:**

D. PUBLIC SWIMMING POOL DESIGN REQUIREMENTS FOR TYPE "A" AND "B", AND “G” POOLS

**Replace R.61-51.D.2 to read:**

 2. Pool Depths.

 (a) The depth in the shallow portion must begin at three (3) feet and slope continually toward the deepest point of the pool.

 (i) Where a pool is constructed with a maximum depth of five (5) feet, six (6) inches or less, the bottom must slope continually at a maximum of one (1) foot vertical to ten (10) feet horizontal and no lifeline is required.

 (ii) Where the maximum pool depth exceeds five (5) feet, six (6) inches there shall be a lifeline between the shallow and the deep end which must be located at a point across the pool one (1) to two (2) feet on the shallow side of the transition point. Where there is no transition point, the lifeline must be at the four (4) foot, six (6) inch depth. The pool must slope continually from shallow end to the slope transition point; and the slope must not exceed one (1) foot vertical to ten (10) feet horizontal.

 (b) Lifelines. The lifeline must be made of polyethylene or nylon rope with floats made of soft plastic or cork placed at not more than five (5) foot intervals. The lifeline must be minimum three-fourth (3/4) inches diameter and have floats at least five (5) inches by six (6) inches in size.

 (c) Transition Point. Where the maximum pool depth exceeds five (5) feet, six (6) inches a permanent non-slip black or dark color tile stripe must be incorporated in the floor and the walls of the pool to mark the slope transition point. This tile stripe must be a minimum four (4) inches and a maximum six (6) inches wide and located at a point across the pool one (1) to two (2) feet on the shallow side of the transition point. Where there is no change in slope this line must be placed at the four (4) foot, six (6) inch depth.

 (d) Zero-Depth Entry Pools. Zero-Depth entry pools are allowed in Type “A” and “B” pools only when a lifeline is placed at the two (2) to three (3) foot depth and a breakline tile stripe meeting the requirements of Section D Paragraph 2(c) is collocated with the lifeline.

 (i) In addition to the required number of surface skimmers or perimeter gutter system, Zero-Depth entry pools must have either a gutter/trench with a grate cover installed along the zero depth area at an elevation which allows effective skimming at the trench at all times or two additional skimmers. Each of these additional skimmers must be located on each side of the zero depth entry at a water depth of between six (6) and twelve (12) inches. If the zero depth entry is greater than forty (40) feet in length, a gutter with a grate is required. All gutter designs will require either a collection/surge tank or a trough with a depth of at least twelve (12) inches. All installations that require a gutter must install an auto-fill device.

 (e) Diving Boards. At least thirteen (13) feet of unobstructed vertical distance must be maintained above any diving board. This thirteen (13) foot height must extend eight (8) feet to each side and twenty (20) feet ahead of the front end of the board. In case of multiple diving boards, the above vertical distance must be provided for each board. Where diving is permitted, minimum depths of pools and clearances for various pool elements must be as shown in the following diagrams and tables (following Section D(2)(j)). Pool widths must be a minimum of eighteen (18) feet throughout the diving section.

 (f) Depths and Clearances. The depths and clearances shown in the chart must be used as the basis for determining the safety features of pools which are not rectangular in shape. Cross-sectional diagrams must be given so that minimum depths and clearances may be determined for pools of non-rectangular shape; a minimum of one (1) longitudinal and one (1) latitudinal cross-sectional diagram must be given for all pools. Where a pool is built to permit diving, but has no diving board installed, diving is permitted only at the point on the deep end where a board would be installed. This point must be marked on the pool coping with the lettering “Diving permitted from this point only.” The lettering shall be a minimum of 4” high and shall be marked on the deck or coping at a maximum of 12” from the pool edge.

 (g) Walls, Ledges, and Islands. All walls must be vertical. No ledges are permitted inside the main pool body. Islands and walkways are allowed inside the main pool body provided that they are above the normal water level and extend to the bottom of the pool floor.

 (h) Seats. Seats may be allowed in the shallow portion of the pool in water depths of four (4) feet or less if completely recessed from the main body of the pool. Recessed shall mean thirty six (36) inches back from the main pool body and not contiguous to any steps. The seat shall be eighteen (18) inches wide and eighteen (18) inches shall be for leg room. The maximum water depth over the seat shall not exceed twenty (20) inches. The front edge of the seat must be marked with a black or dark colored, non-slip tile a minimum of two (2) inches wide. A non-slip tile reading “NO STEP” shall be placed on the seat (1 1/2 inch lettering) and correspondingly on the deck (1 1/2 inch lettering) with no more than five (5) feet between signs if the seat is wider than ten (10) feet, otherwise the “NO STEP” sign shall be placed in the middle of the bench.

 (i) The depths of the shallow portion of a pool with racing lanes which are intended to be used for lap swimming may be increased to three and one-half (3 1/2) feet or four (4) feet. The racing lanes must be marked in black tile or dark colored tile. This tile shall be non-slip. The tile lanes must be a minimum of six (6) inches wide and a maximum of twelve (12) inches wide.

 (j) Construction tolerances shall be within plus or minus (+ or -) three (3) inches of design for overall pool length, width, or depth.

**Add new R.61.51.D.2(k) to read:**

 (k) Vanishing edge pools. Any vanishing edge pool that has a drop of eighteen (18) inches or less as measured from the top of the edge to the normal operating level in the receiving trough is not required to have safety netting. If the drop exceeds eighteen (18) inches, the Department may require the installation of safety measures (safety netting, grates, etc.) to prevent injury. Troughs must be designed to deter access and must have appropriate signs (i.e. “Keep Out”, “Do Not Enter”, etc.) troughs must be provided with appropriately sized main drains and designed to provide skimming action.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| DEPTH minimum feet (’) and inches (”) |  |  |  |  |  |
| Stands and BoardsMax to water | D-1 | D-2 | D-3 | D-4 | D-5 |
| Three (3) Meter Board | 6’ 0” | 4’6” | 12’6” | 12’0” | 12’0” |
| One (1) Meter Board | 6’0” | 4’6” | 10’6” | 10’0” | 10’0” |
| Deck Level Board [Less than twenty six (26) inches] | 6’0” | 4’6” | 9’0” | 8’6” | 8’6” |
| No Board | 6’0” | 4’6” | 8’6” | 8’0” | 8’0” |
| No Diving Pool | 3’0” | 3’0” | 3’0” | 3’0” | 3’0” |
| LENGTH OF SECTIONminimum |  |  |  |  |  |
| Stands and BoardsMax to water | A | B | C | D | E |
| Three (3) Meter Board | 5’0” | 6’0” | 9’0” | 23’0” | 13’0” |
| One (1) Meter Board | 5’0” | 6’0” | 9’0” | 17’0” | 11’0” |
| Deck Level Board [Less than twenty six (26) inches] | 2’6” | 6’0” | 7’6” | 12’0” | 9’0” |
| No Board | 6’0” | 6’0” | 12’0” | - | - |
| No Diving Pool | - | - | - | - | - |

D-1 shall be no farther out than a maximum of 15” from pool wall. Slope of D shall not exceed 1’-0” vertical to 3’-0” horizontal. The maximum values of A are 6’-0” for 1-Meter and 3-Meter boards and 4’-0” for deck level boards. Clearance above the board must extend the entire length of sections B, C and D. Depth D-5 is measured at midpoint of Section B where a diving board is not provided. Where a diving board is provided D-5 shall be measured from the tip of the board. The minimum distance between the diving well wall on the deep end and any opposite wall shall not be less than six (6) feet greater than the diving bowl dimensions (B, C and D). All diving boards that are placed at a height above water between those listed shall be made to comply with the listing that is greatest, e.g. 34” board shall comply with the one meter board height above water. Shallower water depths of three and one-half (3 1/2) feet or four (4) feet will be considered for pools with racing lanes that will be used for competitive swimming and diving from stands.

**Add new R.61-51.D.7 to read:**

 7. Pool Width. Type “A”, “B”, and “G” pools must be a minimum of ten (10) feet wide, with the exceptions of alcoves and lazy rivers. Lazy rivers must be a minimum of six (6) feet wide. Alcoves are recessed areas of the pool where seats may be located.

**Add new R.61-51.D.8 to read:**

 8. Type “G” Pools. Each zone of a type “G” pool must maintain the required turnover rate for it’s intended usage type (e.g. a type “C” pool has a 1 hour turnover rate, therefore a kiddie pool zone would require a 1 hour turnover rate). To ensure that this requirement is met, a separate return line must be provided for each zone. Each return line must be provided with a flow meter that meets the requirements or R.61-51.C(18), or other Department-approved method to ensure the required flow rate per zone is maintained.

**Replace R.61-51.E.2 to read:**

 2. Type "C" Pools. In addition to meeting all other applicable requirements of these regulations as found in Section C, Type "C" pools must also meet the following: There must be a minimum of two (2) inlets and two (2) main drains and at least one (1) surface skimmer positioned and operated in accordance with R.61-51.C.26(b). When only one (1) skimmer is provided and the equalizer outlet is installed on the pool floor, it must be equipped with a minimum of two (2) interconnected suction fittings spaced at least twelve (12) inches apart. The interconnecting line must be sized to accommodate one hundred (100) percent of the recirculation flow. Main drains shall be located on the pool bottom floor. Inlets and outlets must be provided and arranged to produce complete recirculation of pool water and the maintenance of a uniform and adequate level of disinfecting medium at all times. Type "C" pools must be provided with a means of completely draining the contents of the pool to waste without passing through the filter. This may be done by a gravity waste line directly from the pool or by pumping and by-passing the filter. The maximum depth for a wading pool shall be eighteen (18) inches at the center. The bottom must have a maximum slope of no greater than five-eights (5/8) inches per foot toward waste outlets or main drains. The depth at the perimeter may be zero (0) feet.

**Replace R.61-51.E.3 to read:**

 3. Spray Pools. In a spray pool, water must be designed to drain away freely as it sprays over the area. Water quality, wall and floor construction must meet the same requirements as set forth for public swimming pools. The bottom must have a minimum slope of not less than one-fourth (1/4) inch per foot (nor maximum of more than five-eights (5/8) inch per foot) toward waste outlets. All equipment drains, steps, gadgets, and toys must be installed per the manufacturer’s recommendations.

**Replace R.61-51.I.1 to read:**

 1. Applicability. All public swimming pools, no matter when constructed, must comply with the requirements of this section. A change order is required for any interior pool coating, equipment or structural modification which is not an identical replacement for the originally approved design. All change order requests must be approved by the Department in writing prior to commencement of work. The request must be made using the Swimming Pool Change Order Request Form.

**Replace R.61-51.J.8 to read:**

 8. Equipment Enclosure. An enclosure must be provided to prevent unauthorized access to pool operating equipment. The structure shall protect the equipment from vandalism. This enclosure must be of adequate height and size to enable required equipment maintenance and designed to drain away excess water. It must be adequately illuminated and ventilated. The equipment enclosure room is to be used specifically to house equipment for the pool’s recirculation, filtration, and disinfection.

**Replace R.61-51.J.9 to read:**

 9. Recirculation System. The recirculation system must be operated on a twenty-four (24) hour basis during the swimming season unless it can be demonstrated by the owner or designated agent that water quality can be maintained with fewer hours of operation. The recirculation system must be operated during posted pool hours.

**Replace R.61-51.J.10 to read:**

 10. Accidents. Any death, injury, or accident requiring an EMS response, an emergency room visit, or hospitalization must be reported to the Department by the owner ordesignated agent in writing on a Department approved form within seventy-two (72) hours of the occurrence.

**Replace R.61-51.J.11 to read:**

 11. Safety Precautions.

 (a) One or more lifeguards shall be on duty for each two-thousand (2,000) square feet of pool area or major fraction thereof during operation hours at Type "A" and "E" pools. Lifeguards must have their current certifications available for inspection while on duty. Lifeguards, when on duty, shall have no other duty but to supervise the swimmers. Any Type “B” facility choosing to use lifeguards must comply with all of the requirements listed in R.61-51.J(11)(a).

 (b) Type "A" and "E" pools must be locked when not under lifeguard supervision. All pools must be locked when not open for patrons.

 (c) Each Type “E” facility must provide attendants during operation of the facility to control the spacing and number of patrons utilizing each ride and to ensure and maintain the safe egress of all sliders out of the landing pool.

 (d) At least one unit of life saving equipment must be inside the fence and be within two hundred (200) feet walking distance from any point on the pool perimeter and must be readily accessible and functional during posted pool hours. Life saving equipment is not required for Type "C" and "D" pools. Shepard's crook and life ring are not required for Type "A" and "E" pools if rescue tubes are provided.

 (e) For all Type “A” and “E” pools one unit of emergency equipment must be readily accessible and functional during posted pool operating hours.

 (f) All pools must have a first aid kit. This kit must be readily accessible during posted pool hours.

 (g) A toll free telephone or other emergency notification device, other than a cellular or cordless telephone, unless approved in writing by the Department, to notify emergency personnel must be available in the pool area (within two hundred (200) feet walking distance of the pool entrance). The location of the toll free telephone or emergency notification device must be specified on the pool rules sign.

 (h) Signs in accordance with R.61-51.C.28 must be posted in a conspicuous place in the pool area for all pools. A single sign, if used for multiple pools must be clearly visible from each body of water.

 (i) All diving boards and handrails must be maintained in a safe condition. Handrails and ladders must be rigidly secured while the pool is in operation and must comply with R.61-51.C.35.

 (j) The lifeline must be maintained in good condition and kept in place except when lap swimming or routine maintenance is conducted. The lifeline must conform to the requirements listed in R.61-51.D.2.(b).

 (k) All removable diving stands must be removed when not in use.

 (l) Any automatic vacuum systems must be removed from the pool during the hours the pool is open to the general public. In-floor cleaning systems must not be in operation during hours that the pool is open.

**Replace R.61-51.J.12 to read:**

 12. Swimming Limit. The swimming limits are determined in accordance with R.61-51.C.34 and must be posted on the pool rules sign.

**Replace R.61-51.J.14 to read:**

 14. Water Quality

 (a) A pool water quality test kit must be available at the facility during posted operating hours. This kit's condition must allow for accurate readings of free chlorine, bromine, pH, and cyanuric acid, if used.

 (i) The DPD method or methodology approved either by the USEPA or the current edition of Standard Methods must be used to obtain free chlorine/bromine levels.

 (ii) Samples for water quality testing shall be obtained at poolside.

 (b) The following levels must be maintained for all pools:

|  |  |
| --- | --- |
| Chlorine | 1 to 8 parts per million (ppm) free chlorine |
| Bromine | 2.3 to 17.6 parts per million (ppm) |
| pH | 7.0 to 7.8 standard units |

 (c) All outdoor pools using chlorine may be stabilized with cyanuric acid. When used, the cyanuric acid level must not exceed two hundred (200) parts per million for calendar year 2009, one hundred fifty (150) parts per million for 2010, and one hundred (100) parts per million beginning in 2011. Indoor pools need not be stabilized.

 (d) There will be no hand feeding of chemicals while the pool is open for swimming. The pool shall remain closed until chemical levels are within Department approved limits.

 (e) In all cases of biological or chemical contamination of the pool water, the pool shall be immediately closed and the facility operator shall follow all current Department guidance in addressing the contamination before reopening of the pool. Biological contamination such as fecal, blood, or other body fluids shall be treated using guidance published by the Centers for Disease Control (CDC) on their healthy swimming web site. Procedures other than those provided by the Department may be approved on a case-by-case basis.

**Replace R.61-51.J.15 to read:**

 15. Automatic Controllers. Where automatic controllers are installed, the equipment shall be maintained in proper operating condition at all times. This maintenance shall include all of the manufacturers periodic service and calibration schedules for the controller and associated monitoring equipment.

**Replace R.61-51.J.16 to read:**

 16. Pool Temperatures

 (a) Pool, spa, lazy river, or other pool type temperatures shall not exceed 104 degrees Fahrenheit.

 (b) The temperature of each heated Type "D" pool must be monitored and posted by one of the following ways:

 (i) Every two hours and posted on the spa caution sign.

 (ii) Continuously with automated equipment and the temperature displayed within sight of the spa.

 (iii) A shatter-resistant thermometer placed in the spa so that spa users can read it.

**Replace R.61-51.J.17 to read**

 17. Operation Reports.

 (a) Daily operation reports shall be maintained at every public pool. These shall include, as a minimum, readings of chlorine/bromine and pH. Chlorine/bromine and pH shall be checked daily or more frequently during operating hours to ensure the facility maintains required water quality standards for chlorine/bromine and pH. Cyanuric acid levels, if applicable, must be checked and recorded weekly.

 (b) Results must be annotated on a bound log, with consecutively numbered pages, that is acceptable to the Department. The date, time and actual numerical reading must be listed on the report. Instrument monitoring shall not be used in lieu of physical water sampling at poolside. The report must be initialed at each reading and signed by the pool operator or his/her designated agent.

 (c) Reports must be available for Department staff at time of inspection. In addition, reports shall be maintained and available at the facility for the previous eighteen (18) months.

**Replace R.61-51.J.18 to read:**

 18. Pool Operator

 (a) All public swimming pools shall be operated under the direction of a qualified swimming pool operator who holds a valid South Carolina Pool Operator's certification issued by a party approved by the Department. Specific criteria shall be established by the Department for this approval process.

 (b) The pool operator of record must inspect each public swimming pool a minimum of three (3) times per week during operation. Results of this inspection shall be annotated in the facility's bound log book and initialed by the pool operator.

**Replace R.61-51.J.19 to read:**

 19. Depth Markers. All pools must comply with the depth marker requirements listed in R.61-58.C(7) when a Change Order Request Form has been approved by the Department for recoating or resurfacing of the interior of the pool or for resurfacing of the deck.

**Replace R.61-51.J.21 to read:**

 21. Inspection of Facilities and Sampling of Pool Water.

 (a) All public pools must be accessible for inspection by authorized representatives of the Department during the posted pool operating hours unless a sign is posted indicating that the pool is closed. Equipment rooms and associated chemical storage areas must also be accessible during pool inspection.

 (b) It is the owner's or designated agent’s responsibility to correct those items not in compliance with these regulations.

**Replace R.61-51.J.22 to read:**

 22. Facility Closure. If the public swimming pool is closed for six (6) months or longer, the facility shall be appropriately covered with a commercially manufactured pool cover or drained of stagnant water, cleaned, and secured with a fence to prevent access. If drained, care should be taken to ensure that the facility is not damaged by subsurface hydro-static pressure. If a public swimming pool is to be permanently closed, for a period in excess of twenty-four (24) consecutive months, the pool shall be filled in or removed and the water and drainage connections removed. Once a pool is filled in, there should be no subsequent settling that causes water to pond. Facility closures require written notification to the Department.

**Replace R.61-51.J.24 to read:**

 24. Operation and Maintenance Variance. When a pool owner or designated agent desires to operate a public swimming pool under a standard other than specified in these regulations a variance may be requested from the Department. Such a request must be submitted in writing and shall include a description of the standard proposed, identify the standard required by the regulation and include proof of equivalency. This request for a variance may be considered by the Department for approval. The Department's decision on such a variance will be final and will be made in writing.

**Replace R.61-51.K.1 to read:**

 1. Closure of Public Swimming Pools.

 (a) Public Swimming Pools are to be closed immediately by the owner or his/her designated agent under the following conditions:

 (i) When a public pool has not been issued or fails to display a valid annual operating permit from the Department.

 (ii) When the required number of lifeguards are not on duty at Type "A" and Type "E" pools or Type “B” pools choosing to use certified lifeguards in lieu of the required “No Lifeguard on Duty” signs.

 (iii) When any pool is cloudy such that the main drains are not visible and/or the number of openings in the main drain cannot be counted.

 (iv) When any item of life saving equipment is missing, defective or not readily accessible in the pool area.

 (v) When the telephone/emergency notification device is missing, defective, or not accessible.

 (vi) When an imminent safety hazard exists that poses a threat of injury or illness to bathers.

 (vii) When the free residual chlorine or equivalent halogen reading is less than 1.0 parts per million (ppm) or greater than 8.0 parts per million (ppm).

 (viii) When the pH is less than 7.0 or greater than 7.8.

 (ix) When the disinfection, recirculation, automated control system used to adjust water chemistry, or filtration system is not fully operational.

 (x) When the pool log is not available or not properly maintained.

 (xi) When fecal coliform is present in the pool water.

 (xii) When the temperature of any type pool exceeds 104 degrees Fahrenheit.

 (xiii) When “Pool Rules”, “No Diving”, spa “Caution”, “No Lifeguard on Duty”, or “Pool Operator” signs are not posted in accordance with R.61-51.C.28(a) through (f).

 (xiv) When time limits specified by the Department have been exceeded for the correction, repair, or replacement of defective, missing, or unauthorized equipment.

 (xv) When the facility fails to retain or produce proof of the services of a properly credentialed pool operator.

 (xvi) When the existing pool perimeter fencing and/or entrance gate or door do not meet the requirements of R.61-51.C(8).

**Replace R.61-51.K.1(b) to read:**

 (b) Where the owner or designated agent fails to close, or is not available to close the swimming pool under any of the above circumstances, the Department shall close the swimming pool and post "No Swimming" signs.

**Replace R.61-51.K.1(c) to read:**

 (c) In every case of pool closure, one or more "No Swimming" signs shall be posted conspicuously around or inside the affected pool enclosure. The owner or designated agent shall require all swimmers to leave the pool water. When closed by the owner at Department request, the swimming pool may be reopened after the noted deficiencies have been corrected, unless Department reinspection is required. When the owner fails to comply with the Department's request for closure, the Department will post "No Swimming" signs and the facility may not reopen until a satisfactory Department reinspection occurs.

**Replace R.61-51.K.1(d) to read:**

 (d) Following the third pool closure within a twelve (12) month period, the owner and designated agent may be notified and offered a technical assistance visit by Department staff.**Replace R.61-51.M. to read:**

 APPEALS.1. A Department decision involving issuance, denial, renewal, modification, suspension, or revocation of a permit may be appealed by an affected person with standing pursuant to applicable law, including S.C. Code Title 1, Chapter 23 and Title 44, Chapter 1.

2. Any person to whom an order, related to a permit, is issued may appeal it pursuant to applicable law, including S.C. Code Title 1, Chapter 23 and Title 44, Chapter 1.

**Fiscal Impact Statement:**

 No costs to the State or significant cost to its political subdivisions as a whole should be incurred by these amendments. See Statement of Need and Reasonableness below.

**Statement of Need and Reasonableness:**

 The statement of need and reasonableness was determined by staff analysis pursuant to S.C. Code Ann. Sections 1-23-115(C)(1)-(3) and (9)-(11).

DESCRIPTION OF REGULATION: Amendment of Regulation 61-51, Public Swimming Pools

 Purpose: The Department has revised R.61-51 to address specific issues dealing with the construction and operation of public swimming pools in South Carolina. The amendments also include the acceptance of an operator certification by the Department. These amendments will provide greater flexibility for the building of public swimming pools and are necessary in order to provide consistently safe and healthy recreation for our citizens and visitors when they choose to swim in public pools throughout the State. Additionally, the Department has also amended R.61-51 for compliance with statutory changes in the administrative appeals process pursuant to the S.C. Administrative Procedures Act.

 Legal Authority: R.61-51 is authorized by 1976 Code Sections 44-1-140(7), 44-55-2310 et seq.,44-1-60 (2006 Act 367).

 Plan for Implementation: These amendments will be incorporated within R.61-51 upon approval by the Board of Health and Environmental Control, the South Carolina General Assembly, and publication in the *State Register* as a final regulation. The amendments will be implemented in the same manner in which the current regulation is implemented.

DETERMINATION OF NEED AND REASONABLENESS OF THE REGULATION BASED ON ALL FACTORS HEREIN AND EXPECTED BENEFITS:

 The adoption of these regulations will allow the Department to accept operator certification by a party or parties approved by the Department. In addition, these regulations will enhance safety at public swimming pools by changing chemical levels, incorporating updated design requirements, and strengthening operation and maintenance requirements.

DETERMINATION OF COSTS AND BENEFITS:

 There will be no cost increase to pool operators for certification changes. There should be no cost increases for the operation and maintenance changes. The pool design requirement changes may add capital costs to some projects depending on project size and complexity.

 The benefits for the design requirements facilitate increased ease of pool design and construction, operation and maintenance, and pool user safety. The operation and maintenance changes will have positive impacts on pool water quality, safety, and emergency response.

UNCERTAINTIES OF ESTIMATES:

 Moderate.

EFFECT ON ENVIRONMENT AND PUBLIC HEALTH:

 There will be no effect on the environment. The amendments will protect public health through bather safety.

DETRIMENTAL EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH IF THE REGULATION IS NOT IMPLEMENTED:

 While there will be no detrimental effect on the environment if the amendments are not implemented, there is potential for adverse public health impacts as noted above.

**Statement of Rationale**:

 The proposed amendments of R.61-51 will better protect the health of bathers in public swimming pools and decrease the potential for illnesses associated with fecal contamination. The public and those working in and around public swimming pools will benefit from the safety measures included in the proposed amendments.