

**RULES GOVERNING THE CONSTRUCTION,  
EQUIPMENT, AND OPERATION OF PUBLIC  
SWIMMING POOLS AND SPAS  
CHAPTER 499-05-01  
BALDWIN COUNTY, ALABAMA**

**ADOPTED: OCTOBER 23, 2007**

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**BALDWIN COUNTY BOARD OF HEALTH**

**Baldwin County Health Department  
Rules for Construction, Maintenance, and  
Operation of Public Swimming Pools and Spas**

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## SECTION 1 GENERAL PROVISIONS

- 1.1 MANDATE.** Under and by virtue of authority vested in it by the Legislature of the State of Alabama, Code of Alabama, 1975, Section 22-2-2(4) and 22-3-2(4), the Baldwin County Board of Health hereby promulgates the following Rules governing the construction, equipment, and operation of public swimming pools and spas as hereinafter defined, in Baldwin County.
- 1.2 INTENT.** It is the intent of the Baldwin County Board of Health that these rules, in the interest of public health and safety, shall define the words and terms used herein; require written approval before construction, rehabilitation or repair of pools/spas; require permits for operation of pools/spas; establish health and sanitation standards for pools/spas; regulate the operation thereof; and provide for the enforcement of these rules.
- 1.3 SCOPE.** The statute provides for the regulation of public pools/spas in Baldwin County as they may affect health and safety.
- 1.4 COMPLIANCE.** Any person, firm, corporation, institution, association, club, or governmental agency operating, maintaining or constructing a pool/spa or related facilities included herein shall be responsible for compliance with these rules. These rules shall apply to public bathing places and to the design and construction of all new and remodeled pools/spas. All existing pools/spas which are not in compliance with these rules at the time of enactment shall be exempt from compliance with those provisions which do not pertain directly to health and safety of swimmers, but all pools/spas when remodeled shall comply with all applicable provisions of these regulations unless variance is granted. Any variance shall be granted for a specific time period and under conditions consistent with these rules.
- 1.5 PENALTY.** Any person who knowingly violates or refuses to comply with any provisions of these rules shall be guilty of creating a nuisance menacing public health and shall be abated in accordance with Section 22-10-1 through 22-10-3, Code of Alabama, 1975.
- 1.6 APPEALS.** Any person, partnership, corporation, or other entity, who (a) after proper application, is denied a permit, license or authorization; or (b) is in possession of a valid permit, license or authorization, and is notified in writing of the intent of suspend, revoke or deny renewal of said permit, license or authorization, shall be provided the reasons therefore and may, within fifteen (15) days following receipt of said notice, apply in

accordance with the rules of the Baldwin County Board of Health governing appeals, in writing for an informal hearing to the Board.

If, after the informal hearing, the matter is not resolved to the satisfaction of the aforesaid person, written appeal in accordance with the Rules of the Baldwin County Board of Health governing appeals, may be made within fifteen (15) days following said hearing. This appeal shall be sent directly to the Baldwin County Board of Health, P.O. Drawer 396, Robertsedale, Alabama 36567.

- 1.7 VARIANCE.** In order to avoid undue hardships and promote the effective and reasonable application and enforcement of these rules, the Board may grant variances from requirements of these rules in accordance with such procedures and conditions as it may prescribe. A variance shall be granted upon finding that strict application of these rules in question would cause the applicant undue hardship which results from conditions peculiar to the site or situation under consideration which conditions could not reasonably have been anticipated in the writing of the Rule(s).

Any person may request a variance from specific provisions of these rules by submitting a written application to the Board. The person shall state the reasons and circumstances which support the request and shall submit any other pertinent data to support the request.

Any variance not granted within sixty (60) days is deemed denied. If approved, any conditions or time limitations needed to comply with all applicable state laws or to protect public health or the environment shall be specified by the Board. A date upon which the variance will no longer be valid shall be prescribed in the decision.

A variance, if granted, is not transferable from one person to another or from one site to another.

- 1.8 OTHER APPROVALS.** Approval of any pool/spa by the Board does not constitute or imply approval by any county, municipal or other agencies having planning, zoning or other legal jurisdictions.

- 1.9 CONSTITUTIONALITY CLAUSE AND EFFECT DATE.** Should any section, paragraph, sentence, clause, or phrase of these rules be declared unconstitutional or invalid for any reason, the remainder of said rules shall not be affected thereby. After promulgation and adoption by the Board, these rules shall be in full force and effective on a date determined by the Board.

- 1.10 DEFINITIONS.** For the purpose of these rules:

*“Accessible” easily exposed for inspection and the replacement of materials and/or parts with the use of tools.*

*“Acid” a liquid or dry compound used to reduce the pH of swimming pool/spa water.*

*“Algae” microscopic plant-like organisms that contain chlorophyll.*

*“Algaecide” A natural or synthetic substance used for killing, destroying, or controlling algae.*

*“Approved” means acceptable to the Board based on a determination of conformity with appropriate standards and good public health practice.*

*“Available chlorine” a term used in rating chlorine containing products as their total oxidizing power.*

*“Backwash” the process of thoroughly cleansing the filter medium and/or elements by the reverse flow of water through the filter.*

*“Backwash rate” the rate of flow of water through a filter during the backwash cycle, normally expressed in U.S. gallons per minute per square foot of effective filter area.*

*“Bacteria” single-celled microorganisms of various forms, some of which can cause infections or disease.*

*“Barrier” a means to limit, delay or restrict access to a pool/spa.*

*“Bather” any person using a pool/spa and adjoining deck area for the purpose of water sports, recreation therapy, or related activities.*

*“Bather Load” the number of persons in the pool/spa area at any given moment, or during any stated period of time.*

*“Beginner’s Area” those water area in pools which are three feet (3’) or less in water depth.*

*“Board” means the Baldwin County Board of Health as defined by Section 22-3-1, Code of Alabama, 1975, or the County Health Officer or his designee, when acting for the Board, for the purposes of these rules, the Baldwin County Health Department.*

*“Breakpoint Chlorination” the addition of a sufficient amount of chlorine to water to destroy the combined chlorine present.*

*“Broadcast” a method of putting granular or powdered chemicals into a pool/spa by spreading them widely over the surface of the water.*

*Bromine(BR2)” a chemical element that exists as a liquid in its elemental form or as a part of a chemical compound which is an oxidant and a biocidal agent used to disinfect pool/spa water.*

*“Calcium Chlorine (CaCl<sub>2</sub>)” a soluble white salt used to raise the calcium hardness of pool/spa water.*

*“Calcium Hardness” the amount of calcium or magnesium dissolved in water; measured by a test kit and expressed as parts per million (ppm) of equivalent calcium carbonate.*

*“Calcium Hypochlorite (CAOCl<sub>2</sub>)” a solid white form of inorganic chlorine found in both granular and tablet forms, it has a pH of approximately 11 and is 65-70% available chlorine. See Hypochlorite.*

*“Cartridge” a depth, pleated or surface-type filter component with fixed dimensions and designed to remove suspended particles from water flowing through the filter.*

*“Certified Pool Operator” a person trained and certified by satisfactory completion of the National Swimming Pool Foundation’s Swimming Pool/Spa Operator’s Training Course or equal as approved by the Board.*

*“Chemical Feeder” a mechanical device for applying chemicals to the pool/spa water.*

*“Chloramine” a compound formed when chlorine combines with nitrogen or ammonia which causes eye and skin irritation and has a strong, objectionable odor.*

*“Chlorinator/Brominator” a device to apply or to deliver a chlorine/bromine disinfectant to water at a controlled rate.*

*“Chlorine (Cl<sub>2</sub>)” a chemical element that exists as a gas in its elemental form or as a part of a chemical compound which is an oxidant and a biocidal agent used in pool/spa water disinfection. (See also Hypochlorite.)*

*“Chlorine Generator” equipment that generates chlorine, hypochlorous acid, or hypochlorite on site for disinfection and oxidation of water contaminants.*

*“Circulation Equipment” the mechanical components which are part of a circulation system of a pool/spa. Circulation equipment may be, but is not limited to categories of pumps, hair and lint strainers, filters, valves, gauges, meters, heaters, surface skimmers, inlet/outlet fittings, and chemical feeding devices.*

*“Combined Chlorine” the portion of the total chlorine existing in water in chemical combination with ammonia, nitrogen, and/or organic compounds; mostly comprised of chloramines.*

*“Coping” the cap on the pool/spa wall that provides a finishing edge around the pool/spa. Can be formed, cast in place or pre-cast, or pre-fabricated from metal or plastic materials.*

*“Corrosion” the etching, pitting, or eating away of a material by chemical action.*

*“County Health Department” means the Baldwin County Health Department and any officer, agent or employee of the said department authorized to act for the department with respect to the enforcement and administration of these rules.*

*“Cove” the radius between the pool/spa wall and the pool/spa floor.*

*“Covers” something that covers, protects or shelters, or a combination thereof, a swimming pool/spa.*

*“Cross-braced Ladder” a ladder that is manufactured with braces through the handholds to provide increased stability.*

*“Cyanuric Acid” also called stabilizer, isocyanuric acid, conditioner, or triazinetrione- a chemical that helps reduce the excess loss of chlorine in water due to the ultraviolet rays of the sun.*

*“Decks” those areas immediately adjacent to or attached to a pool/spa that are specifically constructed or installed for use by users for sitting, standing, or walking.*

*“Deep Areas” water depths in excess of five feet (5’).*

*“Disinfectant” energy or chemicals used to kill undesirable or pathogenic organisms, and having a measurable residual at a level adequate to make the desired destruction.*

*“Diving Board” a recreational mechanism for entering a swimming pool, consisting of a semi-rigid board that derives its elasticity through the use of a fulcrum mounted below the board.*

*“DPD (Diethyl-P-Phenylene Diamine)” a reagent and test method that specifically measures bromine or free available and total chlorine.*

*“Duplex” a housing structure consisting of 2 living units within the structure.*

*Employee” means the permit holder, individual having supervisory or management duties and any other person working in the facility.*

*“Filter” a device that removes undissolved particles from water by recirculation the water through a porous substance.*

*“Fireman’s Switch” a mechanism adapted to the time clock which will turn the heater off long enough for it to cool down before the time clock turns the pump off.*

*“Floor” shall refer to the interior bottom surface of a pool/spa.*

*“Flow Rate” the quantity of water flowing past a designated point within a specified time, such as the number of gallons in one minute(gpm).*

*“Free Available Chlorine” that portion of the total chlorine remaining in chlorinated water that is not combined with ammonia or nitrogen compounds and will react chemically with undesirable or pathogenic organisms.*

*“Gunitite” a dry mixture of cement and sand, sprayed onto contoured and supported surfaces to build a pool/spa. Water is added to the dry mixture at the nozzle.*

*“Handhold/Handrail” a device that can be gripped by a bather for the purpose of resting and/or steadying him/herself.*

*“Heater” a fossil-fueled, electric or solar device to heat the water of a pool/spa.*

*“Hypochlorite” a family of chemical compounds including calcium hypochlorite, lithium hypochlorite, sodium hypochlorite, etc., found in various forms for use as a chlorine carrier in pool/spa water.*

*“Interactive Water Feature” a structure designed to allow for recreational activities with recirculated, filtered, and treated water, but having no standing water. Water from the interactive fountain type features is collected by gravity below grade in a collector tank or sump. The water is filtered, disinfected and then pumped to the feature spray discharge heads.*

*“Iodine” a chemical element that exists as a grayish-black granule in its normal state, or as a part of chemical compound, which is a biocidal agent used to disinfect pool/spa water.*

*“Law” includes Federal, State and Local statutes, ordinances and rules.*

*“Muriatic Acid (Hydrochloric Acid)” used to lower pH and/or total alkalinity in pool/spa water and for certain specific cleaning needs. HCl is also called Muriatic acid when diluted. Use extreme caution in handling.*

*“Organic Matter” perspiration, urine, saliva, suntan oil, cosmetics, lotions, dead skin, and similar debris introduced to water by bathers and the environment.*

*“ORP (Also called Redox)” the Oxidation Reduction Potential produced by strong oxidizing agents in a water solution. It is a measure of the oxidation level measured in millivolts by an ORP Meter.*

*“Permit” means the document that is issued by the Board which authorizes a person to operate a public swimming pool/spa.*

*“Person” includes any individual, partnership, corporation, association or other legal entity.*

*“Person in Charge” means the individual present at a facility who is the apparent supervisor at the time of the inspection. If no individual is the apparent supervisor, then any employee present is the person in charge.*

*“pH” a value expressing the relative acidity or basicity of a substance, such as water, as indicated by the hydrogen ion concentration.*

*“Plaster” a type of interior finish (a mixture of white cement and aggregate, which can be tinted or colored) which is applied to a concrete pool/spa; also called Marcite or Marblite.*

*“Potable Water” any water which is bacteriologically safe and otherwise suitable for drinking.*

*“PPM” an abbreviation for Parts Per Million.*

*“Pre-Coat” the coating of filter aid on the septum of diatomaceous earth type filter at the beginning of each filter cycle.*

*“Pressure Test” a check for the rate of water flow; also a test for leaks in the system.*

*“PSI” abbreviation for pounds per square inch.*

*“Public Swimming Pool” structure, chamber or tank containing an artificial body of water used by the public for swimming, diving, wading, recreation, or therapy, together with buildings, appurtenances and equipment used in connection with the body of water, regardless of whether a fee is charged for its use. **For the purpose of these rules Interactive Water Features are included in this definition.** The term includes but is not limited to schools, hotel, motels, camps, RV & mobile home parks, apartments, boarding houses, athletic clubs, condominiums, or other membership facility pools/spas. This article does not apply to a private pool/spa serving two or fewer living units and used only by the residents of the units and their guest.*

*Class A: Competition Pool- any pool intended for use for accredited competitive aquatic events such as Federation Internationale de Natation Amateur (FINA), U. S. Swimming, U. S. Diving, national Collegiate Athletic Association (NCAA), National Federation of State High School Associations (NFSHSA), etc. The pool may also be used for recreation.*

*Class B: Public Pool-any pool intended for public recreational use.*

*Class C: Semi-Public Pool-any pool operated solely for and in conjunction with lodgings such as hotels, motels, apartments, condominiums, etc.*

*Class D: Other Pool-any pool operated for medical treatment, therapy, exercise, lap swimming, recreational play, and other special purposes.*

*Class F: Wading Pool-any pool that has a depth of less than 30 inches used for wading.*

*Type VI-XI- public pools suitable for the installation of diving equipment by type. Diving equipment classified at a higher type may not be used on a pool of lesser type.*

*“Pump” a mechanical device, usually powered by an electric motor, which causes hydraulic flow and pressure for the purpose of filtration, heating, and circulation of pool/spa water.*

*“Rehabilitation or Remodeling” the activity of restoring all or part of a pool/spa structure, and its component parts, back into good condition, including extensive rebuilding and/or replacing of worn and broken parts or components.*

*“Removable” capable of being disassembled with the use of only simple tools such as a screwdriver, pliers, or wrench.*

*“Return Inlet” the aperture or fitting through which the water under positive pressure returns into a pool/spa.*

*“Scale” the precipitate that forms on surfaces in contact with water when the calcium hardness, pH, or total alkalinity levels are excessive.*

*“Sewage” means any liquid waste containing animal or vegetable matter in suspension or solution and may include liquids containing chemicals in solution.*

*“Shall” means a mandatory requirement.*

*“Shallow Areas” portions of a pool/spa with water depths less than five feet (5’).*

*“Shock Treatment” the practice of adding significant amounts of an oxidizing chemical to destroy ammonia and nitrogenous and organic contaminants in water.*

*“Shotcrete” a mixture of cement and sand, applied onto contoured and supported surfaces to build a pool/spa. Shotcrete is premixed and pumped wet to the construction site.*

*“Skimmers” a device installed in the pool/spa that permits the removal of floating debris and surface water to the filter.*

*“Slip Resistant” a surface that has been so treated or constructed as to significantly reduce the chance of a bather slipping. The surface should not be an abrasion hazard.*

*“Slope” an inclined surface.*

*“Soda Ash (also SODIUM CARBONATE)” a white powder used to raise pH of the water.*

*“Sodium Bisulfate (also DRY ACID)” a granule used to lower pH and/or the total alkalinity in water.*

*“Sodium Hypochlorite (NaOCL)” a clear liquid form of an inorganic chlorine compound obtainable in concentrations of 5 to 16% available chlorine.*

*“Source Water” water used to fill or refill the pool/spa.*

*“Spa” any spa which is intended to be used for bathing and is operated by an owner, licensee, or concessionaire, regardless of whether a fee is charged for use. This Article*

*does not apply to therapeutic chambers drained, cleaned and refilled after each individual use.*

*“Steps, Ladders, and Recessed Treads” means of pool/spa ingress and egress that may be used independently or in conjunction with one another.*

*Steps- a riser/tread or series of risers/treads extending down from the deck and terminating at the pool/spa floor. May be recessed so that all risers are located outside of bather areas.*

*Ladders- a series of vertically separated treads or rungs connected by vertical rail members or independently fastened to an adjacent vertical pool wall.*

*Recessed Treads-a series of vertically spaced cavities in the pool/spa wall creating tread areas for step-holes.*

*“Suction Outlet” the aperture or fitting through which the water under negative pressure is drawn from the pool/spa.*

*“Superchlorination” the practice of adding a sufficient amount of chlorinating compound to water to destroy chlorine demand compounds and any combined chlorine which may be present.*

*“Tamper Proof” meaning that tools are required to alter or remove portions of the equipment.*

*“Test Kit” a device used to monitor specific chemical residual or demands in pool/spa water.*

*“Timer” a mechanical device that automatically controls the periods that a pump, filter, heater, blower, and other electrical devices are operated.*

*“Total Chlorine” the sum of both the free available and combined chlorines.*

*“Total Dissolved Solids (TDS)” a measure of the total amount of dissolved matter in water, e.g. calcium, magnesium, carbonates, bicarbonates, metallic compounds, etc.*

*“Toxic” meaning that a given substance has an adverse physiological effect on human beings or other living organisms.*

*“Turbidity” cloudy condition of water due to the presence of extremely fine particulate materials in suspension that interfere with the passage of light and restricts visibility.*

*“Turnover Rate” the number of times a quantity of water equal to the total capacity of the pool/spa passes through the filters in a stated time. Usually in turnovers per 24 hours.*

*“Underwater Light” a fixture designed to illuminate a pool/spa from beneath the water surface.*

*“Vacuum” the reduction of atmospheric pressure within a pipe, tank, pump, or other vessel.*

*“Valve” any device in a pipe that can partially or totally obstruct the flow of water or permit flow in one direction only.*

*Bleeder Valve- a device that allow air to be vented from a system.*

*Push-pull Valve- a device that allows for the dual directional control or flow of water through a system.*

*Multi-port Valve- a device that allows for the multi-directional control of the passage or flow of water through a system.*

*“Velocity” the speed at which a liquid flows between two specified points, expressed in feet per second.*

*“Vertical Wall” shall refer to the wall up to a positive 11 degree angle toward the pool/spa’s interior from plumb.*

*“Visually Set Apart” a permanent dark contrasting line of three-quarter inch ( $\frac{3}{4}$ ) mudcap tile or minimum one inch(1”) width line, with a slip-resistant surface on the leading edge of an underwater seat bench, swimout, stairs, offset rest ledges, etc.*

*“Walls” the interior pool/spa wall surfaces consisting of surfaces from the plumb to a 45 degree slope.*

*“Waste Water Disposal System” all water disposal systems approved by state or local authority, such as a storm sewer, sanitary sewer, open pit, leach field, or irrigation system.*

## **SECTION 2 PLANS, CONSTRUCTION, AND PERMITS**

Prior to construction, remodeling, or alteration of a permanently installed pool/spa, plans and specifications shall be submitted to the Baldwin County Health Department for review, approval, and issuance of a permit to construct or remodel may be required.

**2.1 Application.** Upon request, the Board shall provide the necessary application forms for approval of pool/spa installations, alterations or modifications. All applications shall be submitted in duplicate with supplemental data.

**2.2 Issuance of Construction Permit.** Permits for the construction of new pools/spas or for changes in construction, equipment or appurtenances on any existing pool/spa, will be

issued by the Board only after approval of plans and specifications for such construction, equipment and appurtenances.

- A. No person shall begin construction, alter, remodel, or renovate any pool/spa without:
  - 1. Submitting an application and complete plans/specifications to the Board.
  - 2. Receiving a written plan approval or condition approval from the Board.
  - 3. Receiving a permit to construct from the Board.
  - 4. No person shall deviate from the approval or conditionally approved plans and specifications during the construction or alteration of a facility without written approval from the Board.
- B. The Board shall be given ample notice when plumbing is completed to verify pressure testing and plumbing lay-out prior to back-filling. New installations will be required to pressure test at a minimum of 40 psi and altered systems at a minimum of 20 psi. If upon investigation, the designated local health department finds that a public pool/spa was not constructed or modified in accordance with the approved plans and specifications, the Board shall give written notice to the applicant that the operation permit will not be issued, citing the deficiencies or non-complying items that constitute the reasons for not issuing the operation permit. An applicant who fails to correct the deficiencies or non-complying items shall be denied an operation permit.
- C. Construction permits will expire one year from the date of approval by the Board and must be renewed at that time if the construction work has not been initiated.
- D. No contracts for pools/spas construction or reconstruction shall be let, and no construction work shall be commenced, until a construction permit has been issued.
- E. These rules are not to be construed to include structural details nor will such items be checked or approved by the Board.

### 2.3 **Plans.**

- A. **Submission.** - Plans and specifications shall be submitted in duplicate and shall be prepared by a professional engineer or architect of Alabama. Specific exemptions to the requirement may be granted where alterations described in Permit to Construct are minor. The engineer's/architect's registration number/seal shall appear on every set of plans.
  - 1. If approved, plans and specifications will be stamped with the Board's stamp of approval and one set returned to sender. Simultaneously, a construction permit will be issued. One copy of approved plans and specifications will be retained in the files of the health department.

2. At least one set of plans bearing the Board's approval shall be available at the construction site at all times.

**B. Details.**

1. Plans shall be drawn to scale and shall include:
  - a. Overview.
  - b. One longitudinal section.
  - c. One transverse section through the main drain.
  - d. One overall plan showing the pool/spa in relation to other facilities in the area.
  - e. One detailed view of the equipment room layout.
  - f. One vicinity map.
  - g. One piping schematic showing piping, pipe size, inlets, main drains, skimmers, gutter outlets, vacuum fittings, and all other appurtenances connected to the pool/spa piping system.
2. Plan notes such as "fence by owner" or "deck to be under separate contract" shall not be acceptable as a substitute for details and scale drawings.
3. Plans shall include the following information in tabulated form on plan view of pool/spa:
  - a. Legal address of facility.
  - b. Location of facility if different from legal address.
  - c. Owner's name, address, and telephone number.
  - d. Surface area and perimeter of pool/spa.
  - e. Pool/spa volume, turnover time, flow rate, filter rate/unit area, and type of filter.
  - f. Manufacturer, make and model numbers of the pump, filter and automatic chemical feed apparatus, and pump curve showing design flow rate and head.
  - g. Source of water used at the pool/spa.
  - h. Means of disposing backwash water.
  - i. Related facilities, i.e., bathhouse, toilets, floor drains, drinking fountains, etc.

**2.4 Permits**

- A. General.** - It shall be unlawful for any person to operate a public swimming pool/spa in Baldwin County unless such person possesses a valid permit issued by the Baldwin County Board of Health for operation of such facility. Only persons who comply with the provisions of these rules shall be entitled to receive and retain such a permit. Permits shall not be transferable with respect to person, facility or location. The permit shall be kept posted by the proprietor in a conspicuous place within the facility, but shall remain the property of the Board. The permit shall be revocable for violation of these rules.

- B. Issuance of Permits.** – Any person desiring to operate a swimming pool/spa shall make written application for the permit on forms provided by the Board. Such application shall include the name and address of each applicant, the location and type of the proposed facility and the signature of each applicant. The permits shall be applied for and issued on forms prescribed by the Board. Permits shall automatically expire on the date upon which the state, county and municipal annual privilege licenses expire or a date designated by the Board, and shall be renewable each year upon written application from the operator within ninety (90) days prior to date of expiration of swimming pool/spa permits and upon compliance with the laws and rules. Prior to approval of an application for a permit, the Board shall inspect the proposed facility to determine compliance with the requirements of these rules. The Board shall issue a permit to the applicant if the inspection reveals that the proposed facility complies with the requirements of these rules.
- C. Suspension of Permits.** - Permits may be suspended temporarily by the Board for failure of the permit holder to comply with the requirements of these rules. When a permit holder fails to comply with any notice issued under the provisions of these rules, the permit holder or operator shall be notified in writing that the permit is, upon service of the notice, immediately suspended and that the opportunity for a hearing shall be provided if a written request for a hearing with the Board within fifteen (15) days. If no written request for a hearing is filed within fifteen (15) days, the suspension is sustained. The Board shall end the suspension at any time if reasons for suspension no longer exist.
- Any person whose permit has been suspended may at any time make application for a re-inspection for the purpose of reinstatement of the permit. Following receipt of a written request, including a statement signed by the applicant that, in his opinion, the conditions causing suspension of the permit have been corrected; the Board shall make a re-inspection. If the applicant is complying with the requirements of these rules, the permit shall be reinstated.
- Notwithstanding the other provisions of these rules, whenever the Board finds unsanitary or other conditions in the operation of a swimming pool/spa which, in his judgment, constitutes a substantial hazard to the public's health, he may, without warning, issue a written notice to the permit holder or operator citing such conditions, specifying the corrective action to be taken, and specifying the time period within which such action shall be taken; and, if deemed necessary, such order shall state that the permit is immediately suspended, and all swimming pool/spa operations shall be immediately discontinued. Any person to whom such order is issued shall comply immediately therewith.
- D. Service of Notice.** - a notice provided for in these rules is properly served when it is delivered to the holder of the permit or the person in charge or when it is sent by regular U.S. Mail, to the last known address of the holder of the permit. A copy of the notice shall be filed in the records of the Board.

## **2.5 Inspections**

- A. Inspection Frequency.** - Swimming pools/spas shall have a minimum of two inspections May1 through August 31 and a minimum of two inspections September

1 through May 1. Additional inspections of swimming pools/spas shall be performed as often as necessary for the enforcement of these rules.

- B. Access.** - The Board, after proper identification, shall be permitted to enter any swimming pool/spa and related component at any reasonable time for the purpose of making inspections to determine compliance with these rules. The Board shall be permitted to examine the records of the facility, to obtain information pertaining to swimming pool/spa supplies purchased, received or used, or the persons employed.
- C. Reports of Inspections.** - Whenever an inspection of a facility is made, the findings shall be recorded on the inspection report form. The inspection report form shall summarize the requirements of these rules. Inspection remarks shall be written and shall state the corrections to be made. A copy of the inspection report shall be filed with the records of the county health department. The completed inspection report form is a public document that shall be made available for public disclosure to any person who requests it according to law.
- D. Correction of Violations.** - The completed inspection report shall specify a reasonable period of time for the correction of the violations found; and correction of the violations shall be accomplished within the period specified, in accordance with the following provisions:
1. If an imminent health hazard exists, the facility shall immediately cease operations. Operations shall not be resumed until authorized by the Board.
  2. All violations of critical items shall be corrected as soon as possible, but in any event, within 10 days following the inspection.
  3. Failure to conspicuously post for public view any document issued by the Board and required by these rules to be so posted, shall be corrected immediately.
  4. The inspection report shall state that failure to comply with any time limits for corrections may result in cessation of operations. An opportunity for a hearing on the inspection findings or the time limitations or both will be provided if a written request is filed with the Board within fifteen (15) days following cessation of operations. If a request for a hearing is received, a hearing shall be held in accordance with the Rules of the Board.
  5. Whenever a swimming pool/spa is required to cease operations, due to lack or excess of sanitizer, turbidity, damaged or missing main drain cover, or lack of filtration, the Certified Pool Operator may reopen the swimming pool/spa when these violation(s) are corrected. See **Section 11, 11.1** for documentation requirements. If a pool/spa is required to cease operations for other reasons other than the items listed, it shall not resume operations until it is shown on

re-inspection that the conditions responsible for the order to cease operations no longer exist. Opportunity for re-inspection shall be offered within a reasonable time.

## **SECTION 3 STRUCTURE AND DESIGN**

**3.1 Materials of Construction.** - Swimming pools/spas and all appurtenances thereto shall be constructed of materials which are nontoxic to man and the environment; which are impervious and enduring; which can withstand the design stresses; and which will provide a watertight structure with a smooth and easily cleaned surface without cracks or joints, excluding structural joints, or to which smooth, easily cleaned surface finish is applied or attached.

### **3.2 Structural Design.**

- A.** The structural design and materials used shall be in accordance with generally accepted good structural engineering practices.
- B.** Vinyl liners shall not be permitted as an interior finish in a swimming pool/spa.
- C.** In climates subject to freezing temperatures, the pool/spa shell and appurtenances, piping, filter system, pump and motor, and other components shall be so designed and constructed to facilitate protection from damage due to freezing.
- D.** The surfaces within the pool/spa intended to provide footing for bathers shall be designed to provide a slip-resistant surface.
- E.** The colors, patterns, or finishes of the pool/spa interior shall not be such as to obscure the existence or presence of objects or surfaces within the pool/spa and shall be white or light in color.
- F.** The pool/spa shall be built in compliance with the plans as approved unless subsequent written approval of changes has been given by the Baldwin County Health Department at specific, predetermined, stages of construction, and at the time of completion of the pool/spa to permit inspections.

### **3.3 Dimensional Design.**

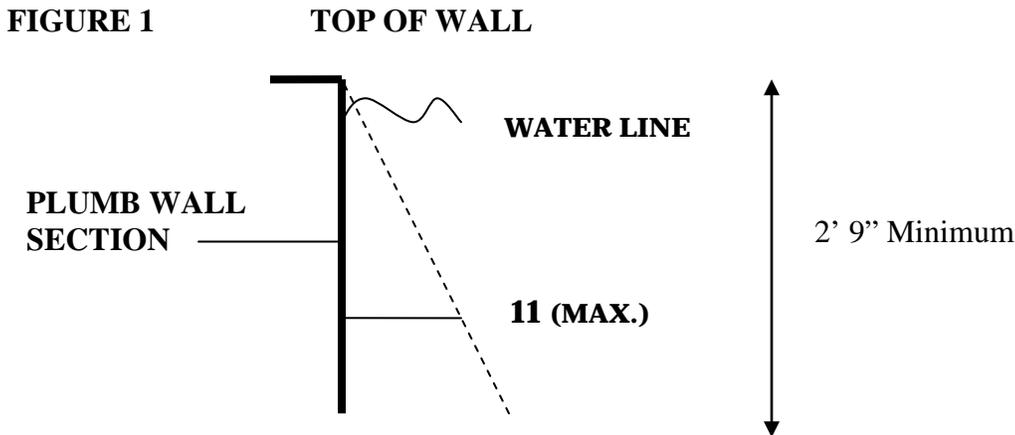
- A.** No limits are specified for the shape of swimming pools/spas except that consideration shall be given to shape from the standpoint of safety and circulation of the swimming pool/spa.
- B.** There shall be no protrusions, extensions, means of entanglement, or other obstructions in the pool/spa area which can cause the entrapment of injury of the bather.
- C.** There shall be construction tolerances allowed on all dimensional designs. Overall length, width, and depth in the deep end may vary plus or minus three inches (3”),

unless otherwise specified (such as in a Class A pool). The design waterline shall have maximum construction tolerance at the time of completion for the work of plus or minus 1/4 inch for pools/spas with adjustable weir surface skimming systems and a plus or minus 1/8 inch for pools/spas with non-adjustable surface skimming systems.

- D. The size of Class A or D pools shall be governed by the requirements of the activities for which the installation is intended.

### 3.4 Walls and Floors.

- A. **Walls.** - Walls in Class B and C pools shall not be greater than 11 degrees from plumb (see Figure 1) for a minimum of depth of two feet nine inches (2'9") from the water line in deep areas, or two feet three inches (2'3") in the shallow area. Below these depths, the wall may be radiused to join the floor. Class A pools, where racing lanes terminate, shall have the plumb walls. (A maximum of 1 degree from plumb construction tolerance shall be allowed). Spas shall not be greater than 11 degrees from plumb.

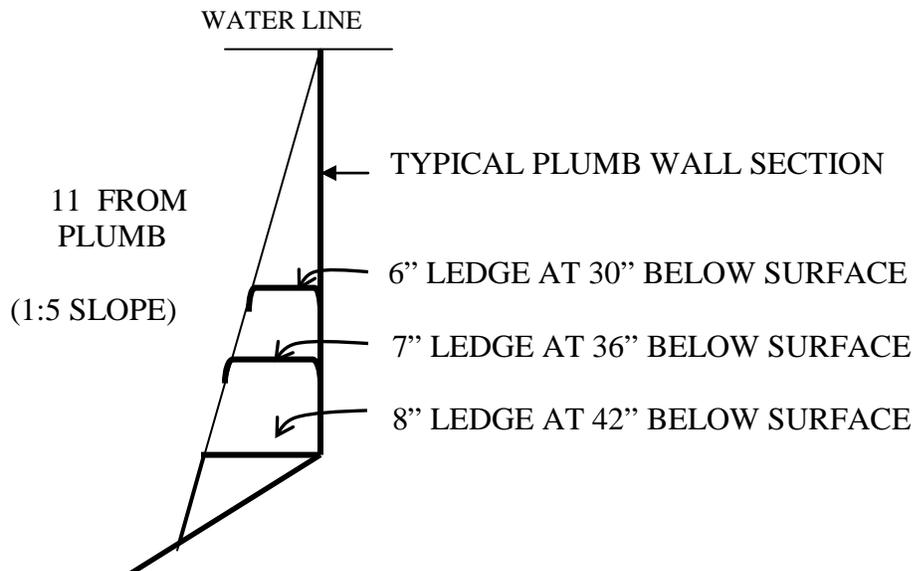


**Figure 1:** Maximum allowable wall slope for Class B and C pools and spas

- B. **Floors.** - All floors slopes shall be uniform.
  - 1. The slope of the floor from the shallow end wall towards the deep end shall not exceed one foot in twelve (1':12') to the point of the first slope change for Class A and B pools and spas, or one foot in ten feet (1':10') for Class C pools.

2. The point of the first slope change shall be defined as the point at which the floor slope exceeds one foot in twelve feet (1':12') for Class A and B pools, or one foot in ten feet (1':10') for Class C pools.
  3. The slope of the floor from the point of the first slope change to the deep end shall not exceed one foot in three feet (1':3'). Such slopes are not intended to provide any less water depth than those specified if the pool is intended for diving.
  4. Transitional radius from wall to floor where floor slope join the wall shall comply with **3.4.B.4a-c**:
    - a. The radius shall have its center no less than two feet nine inches (2'9") below the waterline in deep areas or two feet six inches (2'6") in shallow areas.
    - b. The radius shall be tangent at the point where the radius either meets the wall or the floor.
    - c. The radius shall be at least equal to, or greater than, the depth of the pool minus the vertical wall depth measured from the waterline (or tolerance allowed in **Section 3.4.A**) minus three inches (-3"0) to allow draining the main drain. (R minimum = Pool depth – Vertical wall depth -3")
- A. Offset/Rest Ledges.** - Offset ledges, when provided, shall fall within 11 degrees from plumb starting at the junction of the pool wall and waterline, and shall have a slip-resisting surface and be visually set apart. Maximum width shall be eight inches (8") with at least four feet (4') below the water surface. The typical allowable dimensions are based on the depths shown in Figure 2.

**Figure 2: Offset/Rest Ledges**



- B. Underwater Seat Benches.** - Underwater seat benches, when provided, shall have a maximum horizontal seat bench depth of twenty inches (20") below the waterline

and have a slip-resistant surface. The leading edge of the underwater bench shall be visually set apart. Underwater seat benches shall be located fully outside of the required minimum diving water envelope if the pool is intended for use with diving equipment. Underwater benches are permitted in the deep end of the pool only if they are either completely recessed, shaped to be compatible with the shape of the pool wall, or in a corner of the pool.

- C. **Swimouts.** - Swimouts, when provided, shall have a maximum horizontal depth of twenty inches (20") below the waterline, have a slip-resistant surface and shall be located completely outside of the perimeter shape of the pool. The leading edge of the swimout shall be visually set apart. A swimout shall have a minimum unobstructed surface area equal to that required for the top tread of the pool stairs and may be used as an entry/exit access as long as a step is provided to meet the stair requirements.
- D. **Zero/Beach entries.** - Zero/beach entries used as a pool entrance shall not exceed one (1) foot in ten (10) feet slope, must be slip-resistant and may be used in conjunction with steps and benches. Where benches are used, the vertical riser shall not exceed twelve inches (12"). For stairs, **Section 4.2.H.1-7** apply.

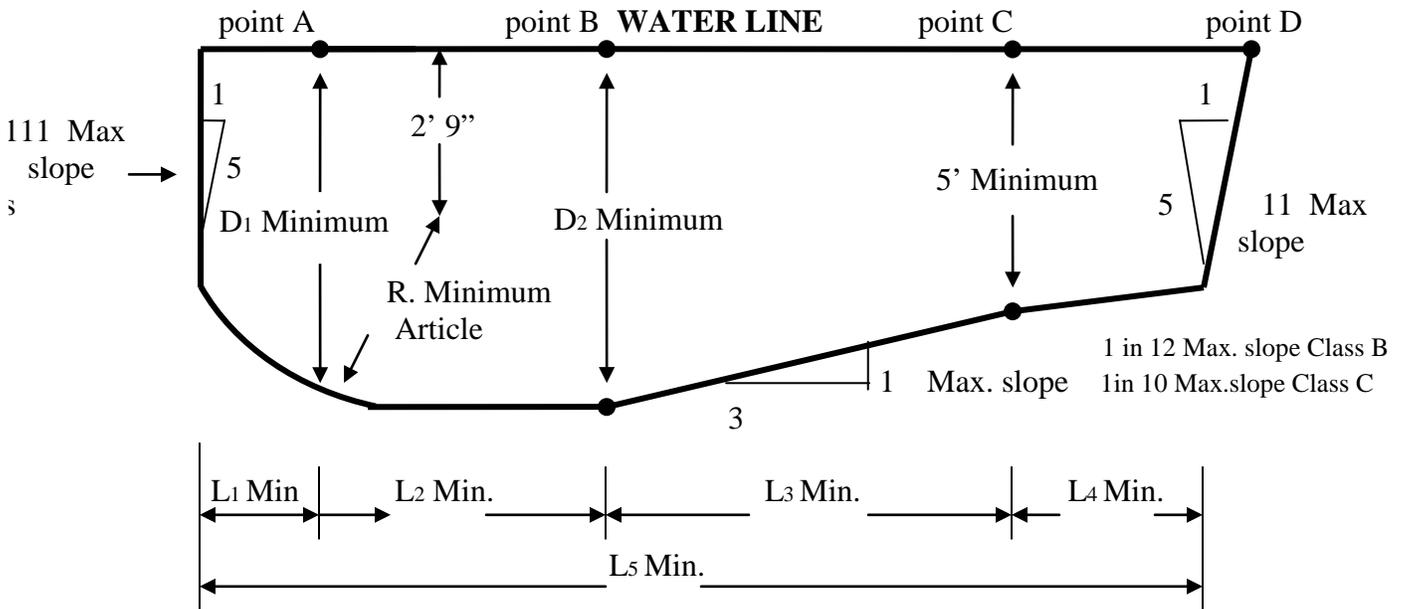
### 3.5 Water Depths.

- A. Water depths at the shallow end of the swimming area shall be three feet (3') minimum with a three feet six inches (3'6") minimum for racing pools. Exceptions may be made in a recessed area of the main swimming pool, outside of the competitive and/or swimming course or when the pool is an irregular shape with the permission of the Baldwin County Health Department. The beginners' area of a pool shall be visually set apart from, but may be adjoined to, the shallow area and shall not adjoin the deep area.
- B. The maximum water depth for a spa shall be four feet (4') measured from the waterline.
- C. The transition point of the pool from the shallow area to the deep area shall be visually set apart with a two inch (2") minimum width row of floor tile, painted line, or similar means of a color contrasting with the bottom. In diving pools with a constant slope, the shallow area shall be visually set apart from the deep area with a rope and float line and four inch (4") minimum width row of floor tile, painted line, or similar means of a color contrasting with the bottom and located at five feet (5') of water depth.
- D. Class A pools intended for competitive diving and swimming shall be designed and constructed so as to provide the water depths specified by the Federation Internationale de Natation Amateur (FINA) and U. S. Swimming and U. S. Diving.

### 3.6 Diving.

- A. Diving intended for Class B and C pools shall conform to the minimum water depths, areas, slopes, and other dimensions shown in **Figure 3**. If a wall exists, then it shall conform with the 3:1 slope in the Point D dimension and the L 1-2-3-4 dimensions.
- B. When diving equipment is installed, it shall conform to the specifications set forth in **Section 3.3.6C-E**, and shall be located in the diving area of the pool so as to provide the minimum dimensions as shown in **Figure 3**. Competitive diving equipment shall not be installed on Class B and C pools.
- C. The tip of the diving equipment shall be located at Point A, which is the reference point of all other dimensions.
- D. There shall be a completely unobstructed clear vertical distance of thirteen feet (13') above any diving board measured from the center of the front end of the board. This area shall extend horizontally at least eight feet (8') to each side and sixteen feet (16') ahead of Point A.
- E. Pools with diving facilities in excess of three (3') meter in height or pools designed for platform diving, shall comply with the dimensional design requirements of FINA, U. S. Diving, National Federation of State High School Association (NFSHSA), etc.

**Figure 3: Minimum Dimensions for Diving Portion of Class B and C pools**  
 (This drawing does not show the shallow portion of the pool.)



### 3.7 Wading Pools.

- A. Wading pools shall meet barrier requirements in **Section 9.4.A-B**. Wading pools constructed prior to these rules shall have two (2) years from the onset of these rules to meet this requirement.
- B. Wading pools shall have a minimum of ten feet (10') wide deck area at least fifty percent (50%) of their perimeter with the remainder of the perimeter deck being at least four feet (4') wide. There shall be at least ten feet (10') between adjacent swimming pools and wading pools. Wading pools constructed prior to the onset of these rules shall be except from this requirement.
- C. Wading pools shall have a maximum depth of twenty-four inches (24"). The water depth at the perimeter shall not exceed eighteen inches (18"). Water depths may be reduced from the above maximums and brought to zero at the most shallow point.
- D. Walls in wading pools shall be vertical or with 11 degrees on vertical except for the lower six inches (6") above the waterline at any point.
- E. Floors of wading pools shall be uniform, sloped to drain with a maximum slope of 1 foot in 12 feet (1':12').

## SECTION 4 DECKS AND DECK EQUIPMENT

These requirements shall be for decks and deck equipment used by bathers and shall apply at the time of construction.

### 4.1 Decks.

- A. Deck(s) shall be designed and installed in accordance with the engineering practices required in the area of installation. This includes the design and quality of subbase when required, concrete mix design, reinforcing, joints, etc. If a concrete deck is selected, in the absence of specific local engineering practices, the work shall be performed in accordance with the recommended practices of the latest edition of American Concrete Institute (ACI) Standard 302.1R-80, "Guide for Concrete Floor and Slab Construction."
- B. Decks, ramps, and coping and similar step surfaces shall be slip-resistant, easily cleanable, and nonabsorbent. Wooden decks are prohibited on new construction or extensive renovations.
- C. Special features in or on deck(s) such as markers, brand insignias or similar shall conform **Section 4.1.A-B**.
- D. Risers for steps for the deck shall be uniform and have a minimum height of three and three-fourths inches (3 ¾") and a maximum height of seven and one-half inches (7 1/2"). The minimum tread depth shall be ten inches (10").

- E.** Excavation areas shall be adequately compacted when they support the deck(s).
- F.** The minimum continuous, unobstructed deck width, including the coping, shall conform to **4.1-G.1.-5.**, as appropriate.
  - 1.** Class A pool-As recommended by the appropriate activity (FINA, U.S. Swimming, U.S. Diving).
  - 2.** Class B pool-Six feet (6') minimum.
  - 3.** Class C pool- Four feet (4') minimum.
  - 4.** Class D pool- Three feet (3') minimum where provided.
  - 5.** Class F wading pool- Four Feet (4') minimum.
  - 6.** Spas- Four feet (4') minimum around at least fifty percent (50%) of the spa.
- H.** A minimum four feet (4') deck width shall be provided on the sides and rear of any diving equipment. A deck clearance of twenty-four inches (24") shall be provided around any other deck equipment that is thirty-six inches (36") or less in height above the deck. A deck clearance of thirty-six inches (36") shall be provided around all other deck equipment.
- I.** The minimum slope of all decks shall be one inch per foot (1":1') except for ramps.
- J.** The maximum voids between and/or within the slab itself, adjoining concrete slabs, and/or between concrete slabs and expansion joint material, shall be three-sixteenths inch (3/16") of horizontal clearance with a maximum difference in vertical elevation of one-fourth inch (1/4").
- K.** Construction joints where pool/spa coping meets concrete deck(s) shall be watertight and shall not allow water to pass to the ground beneath.
- L.** The area where the deck(s) join pool/spa coping shall be designed and installed so as to protect the coping and its mortar bed from damage as a result of reasonable movement of adjoining deck(s).
- M.** Joints in deck(s) shall be provided to minimize the potential for cracks due to change in elevations, separation of surfaces or movement of the slab.
- N.** The area where deck(s) join concrete work shall be protected by expansion joints to protect the pool/spa adequately from the pressures of relative movements.
- O.** Deck(s) shall be edged, have a radius, or be otherwise relieved to eliminate sharp corners.
- P.** Deck(s) shall be sloped to effectively drain either to perimeter areas or to deck drains. Drainage shall remove pool/spa splash water, deck cleaning water, and rain water without leaving standing water.

- Q. Site drainage shall be provided so as to direct all perimeter deck drainage as well as general site and roof drainage away from the pool/spa. When required, yard drains shall be installed to prevent the accumulation or puddling of site water in the general area of the deck(s) and related improvements.
- R. Circulation system piping, other than that integrally included in the manufacture of the pool, shall be subject to an induced static hydraulic pressure test (sealed system) at twenty-five (25) pounds per square inch (psi) for thirty (30) minutes. This test shall be performed before the deck is poured, and the pressure shall be maintained through the deck pour.
- S. Valves installed in or under any deck(s) shall provide a minimum ten inches (10") diameter access cover and valve pit to facilitate servicing.
- T. A hose bibb and a vacuum breaker shall be provided for washing down the entire deck area.

**4.2 Entry/Exit. (Interactive Water Features are exempt from 4.2-4.3)**

- A. All pools shall have a least two (2) means of entry/exit located so as to serve both ends of the pool. These shall consist of ladders, stairs, or recessed treads, beach or zero depth entries, swimouts, and may be used in combination. All treads shall have slip-resistant surfaces.
- B. Where water depths are twenty-four inches (24") or less at the pool wall, such areas shall be considered as providing their own natural mode for entry/exit.
- C. For pools or water areas over thirty feet (30') in width, both sides of the deep portions shall have entries/exits provided.
- D. A means of entry/exit for the shallow end shall be located between the shallow end wall and the cross section at Point D, while a means of entry/exit for the deep end shall be between the deep end wall and the cross section at Point B.(Refer to Figure 3 page 22)
- E. A means of entry/exit shall be provided at a minimum of every seventy-five (75') linear feet of pool wall or fraction thereof. Final determinations of pools with irregularity will be made by the Baldwin County Health Department.
- F. Spas shall be provided with steps, ladders, or recessed treads for entry/exit where water depths are greater than twenty-four inches (24"). Spas shall also be equipped with at least one handrail (or ladder) for each fifty feet (50') of perimeter or a portion thereof, to designate the point of entry/exit.
- G. Stairs, ladders, and recessed treads shall be located so as not to interfere with racing lanes of a pool, if applicable.
- H. **Stairs.** - The design and construction of protruding and recessed pool/spa stairs shall conform to following:

1. Step treads shall have a minimum unobstructed horizontal depth of ten inches (10") and a minimum unobstructed surface area of two hundred forty (240) square inches.
2. Risers at the centerline of the treads shall have a maximum uniform height of twelve inches (12"), with the bottom riser height allowed to vary up to a maximum uniform height of twelve inches (12").
3. Each set of stairs shall be provided with at least one (1) handrail to serve all treads and risers centered and equally spaced. Stairs greater than twelve linear feet (12') wide shall have additional handrails for each twelve additional feet.
4. Handrails, if removable, shall be installed in such a way that they cannot be removed without the use of tools.
5. The leading edge of handrails facilitating stairs and pool/spa entry/exit shall be no more than eighteen inches (18") plus or minus three inches (+-3"), horizontally from the vertical plane of the bottom riser.
6. The outside diameter of handrails shall be between one inch (1") and one and nine-tenths inches (1.9").
7. Underwater seats, benches or swimouts may be provided as part of the stairs or recessed treads.
8. Pools/spas constructed after the onset of these rules shall have stairs visually set apart.

**I. Ladders.** - The design and construction of ladder(s) shall conform to **Section 4.2.H.1-6.**

1. Ladders shall be of the cross-braced type and shall be made entirely of corrosion-resistant materials. Pools/spas constructed prior to these rules have 2 years from the onset of these rules to come into compliance with **Section 4.2.H.1.**
2. Ladders shall provide two (2) handholds or two (2) handrails.
3. Below the water level, there shall be a clearance of not more than six inches (6") nor less than three inches (3") between any ladder tread edge, measured from the pool wall side of the tread, and the pool/spa wall.
4. The clear distance between ladder handrails shall be a minimum of seventeen inches (17") and a maximum of twenty-four inches (24").
5. There shall be a uniform height between ladder treads, with a seven inch (7") minimum distance and a twelve inch (12") maximum distance.
6. Ladder treads shall have a minimum horizontal depth of two inches (2").

**J. Recessed Treads.** - The design and construction of recessed treads in the pool/spa wall shall conform to **Section 4.2.J.1-5.**

1. Recessed treads at the centerline shall have a uniform vertical spacing of twelve inches (12") maximum and seven inches (7") minimum.
2. The vertical distance between the pool/spa coping edge, deck or step surface and the uppermost recessed tread shall be a maximum of twelve inches (12").
3. Recessed treads shall have a minimum depth of five inches (5") and a minimum width of twelve inches (12").
4. Recessed treads shall drain into the pool/spa to prevent accumulation of dirt.
5. Each set of recessed treads shall be provided with a set of handrails/grabrails or handholds to serve all treads and risers.

### **4.3 Supports for Diving Equipment.**

- A. Supports, platforms, stairs, and ladders for diving equipment shall be designed to carry the anticipated loads. Stairs and ladders shall be of corrosion-resistant materials, easily cleanable and with slip-resistant tread. All diving stands higher than twenty-one inches (21") measured from the deck to the top butt end of the board shall be provided with stairs and/or a ladder. Step treads shall be self-draining.
- B. Platforms and diving equipment of one (1) meter or less shall be protected with guard rails which shall be at least thirty inches (30") above the diving board and extend to the edge of the pool wall. All platforms or diving equipment higher than one (1) meter shall have guard rails which are at least thirty-six inches (36") above the diving board and extend to the edge of the pool wall.
- C. **Diving Equipment.**
  1. Diving equipment shall be designed for swimming pool use and shall be installed in accordance with the manufacturer's recommendations.
  2. Diving equipment manufacturers shall provide installation instructions and specifications with each unit.
  3. A label shall be permanently affixed to the diving equipment or jump board and shall include:
    - a. manufacturer's name and address,
    - b. board equipment length,
    - c. identification as to diving or jumping board,
    - d. fulcrum setting specifications (if applicable),

- e. reference to the current year of the applicable SNIP standard,
  - f. Reference to the applicable article(s) in this standard.
4. Diving equipment suitable for installation on a lower pool type may be installed on any higher pool type providing no less water envelope is provided from the tip of the board than called for in the lower type. Diving equipment of a greater type, e.g., Type VIII, shall not be installed on a pool of lesser type, e.g., Type VII. Should diving equipment be installed at any greater height than specified for the lower type pool, water surface area and geometry shall be provided for the type pool which permits board installation at that height.
  5. Diving equipment shall have slip-resistant tread surfaces.
  6. Diving equipment shall be permanently anchored to the pool deck. The edge of the board at the tip end shall be level with the water surface. The tip end of the board over the pool water surface may be higher than the butt end of the board. Refer to manufacturer's recommendations.
  7. Maximum board height over the water shall have plus three inches (+3") tolerance to allow for construction variances only on Class B and C pools.
  8. The maximum construction tolerance of the tip of the board from Point A shall be plus or minus three inches (+-3") on Class B and C pools. The tip of the diving equipment shall be located at Point A, which is the reference point of all other dimensions.
- D.** The Requirements of the U.S. Consumer Product Safety Commission (CPSC) Standard for Swimming Pool Slides as published in the Code of Federal Regulations, 10 CFR, Part 1207, shall be used for standards relating to swimming pool slides. Installation and use instructions shall be provided with each unit by the manufacturer.

## **SECTION 5 CIRCULATION SYSTEMS**

A circulation system consisting of pumps, piping, return inlets and suction outlets, filters, and other necessary equipment shall be provided for complete circulation of water through all parts of the pool/spa.

### **5.1 Circulation Equipment.**

- A.** The equipment shall be of adequate size to turn over the entire pool water capacity at least once every six (6) hours. Spa equipment shall be of adequate size to turn over the entire spa water capacity at least once every thirty (30) minutes and wading pools every hour. Pools permitted prior to the effective dates are exempt from this rate but in no case, shall they exceed the eight (8) hour turnover and wading pool shall not exceed two (2) hour turnover. (If these pools do major rehabilitation or

remodeling, they must then meet the current requirements for the turnover rate) This system shall be designed to give the proper turnover rate based on the manufacturer's recommended maximum pressure flow of the filter in clean media condition of the filter. Water clarity shall be maintained. Clarity is a function of proper filtration and maintenance of proper chemical operational parameters. See **Appendix A**. When standing at the pool's edge at the deep end, all portions of the pool floor shall be visible.

- B. Circulation system components which require replacement or servicing shall be accessible for inspection, repair, or replacement, and shall be installed in accordance with the manufacturer's instructions.
- C. Where equipment sizing falls within the scope of National Sanitation Foundation (NSF) testing, materials and equipment used for the circulation system shall comply with the appropriate requirements of NSF Standard 50.
- D. Pool/spa equipment shall be properly supported to prevent damage from misalignment, settlement, etc. The equipment shall be mounted so as to minimize the potential for the accumulation of debris and moisture, following manufacturer's instruction.

**5.2 Equipment Storage Area.** Storage area shall be enclosed by fencing or walls and shall be secured to prevent easy access. Enclosed equipment rooms shall be ventilated by forced draft cross ventilation. All below grade equipment rooms shall have forced draft ventilation or a fully louvered door or vent on at least one side.

**5.3 Piping and Fittings.**

- A. The circulation system piping and fittings shall be nontoxic, shall be considered to be process piping, and shall be of material able to withstand operating pressures and operating conditions. All piping used for pool circulation must be listed in the current edition of "Seal of Approval Listing of Plastic Materials, Pipe Fittings and Appurtenances for Potable Water Supplies", National Sanitation Foundation (NSF). All pool piping shall bear the N.S.F. seal for potable water and be schedule 40 or greater.
- B. Pool/spa piping subject to damage by freezing shall have a uniform slope in one direction equipped with valves for adequate drainage. Pool/spa piping shall be supported at sufficient intervals to prevent entrapment of air, water or dirt. Provision shall be made for expansion or contraction of pipes.

**5.4 Water Velocity.**

- A. The water velocity in the pool/spa piping shall not exceed ten feet (10') per second for discharge piping (except for copper pipe where the velocity should not exceed eight feet (8') per second), and six feet (6') per second for suction piping, unless summary calculations are provided to show that the greater flow is possible with the pump and piping provided. Pool piping shall be sized to permit the rated flows for filtering and cleaning without exceeding the maximum head of the pump.

- B. Equipment shall be designed and fabricated to drain the pool/spa water from the equipment, together with exposed face piping, by removal drain plugs and manipulating valves, or by other methods. Refer to manufacturer's recommendations for specific information on draining the system.

#### 5.5 **System Condition.**

- A. A pressure or vacuum gauge or other means of indication system condition shall be provided in the circulation system in an easily readable location.
- B. The pressure gauge shall be installed on the face piping ahead of the filter or on the top of the filter in the area of greatest filter pressure.
- C. The vacuum gauge shall be installed as close to the pump return inlet as possible and still maintain an accurate reading.
- D. All pools/spas shall be provided with a flowmeter that measures the flow rate through the filter system with an appropriate range readable in gallons per minute and accurate within ten (10) percent actual flow.

#### 5.6 **Water Clarity and Chemistry.** The circulation system shall be capable of maintaining water clarity and water chemistry requirements in accordance with **Appendix A.**

#### 5.7 **Instructions.** Operation and maintenance instructions shall be provided for the circulation system posted conspicuously and shall include emergency shut off procedures.

#### 5.8 **Filters.**

- A. Filters shall be designed so that filtration surfaces can be inspected and serviced.
- B. **Internal Pressure:** On pressure-type filters, a means shall be provided to permit the release of internal pressure.
- C. Any filter incorporating an automatic internal air release as its principle means of air release shall have lids which provide a slow and safe release of pressure as a part of its design.
- D. Any separation tank used in conjunction with any filter tank shall have a manual means of air release or a lid which provides a slow and safe release of pressure as it is opened as part of its design.

#### 5.9 **Pumps and Motors.**

- A. A pump and motor shall be provided for circulation of the pool/spa water. Performance of all pumps shall meet or exceed the conditions of flow required for filtering and cleaning (if applicable) the filters against the total dynamic head developed by the complete system.

- B.** With all pressure filter systems, a cleanable strainer or screen shall be provided upstream of the circulation pump(s) to remove solids, debris, hair, lint, etc.
- C.** Pump(s) and motor(s) shall be accessible for inspection and service.
- D.** The design and construction of the pump(s) and component parts shall provided safe operation.
- E.** Where a mechanical pump seal is provided, components of the seal shall be corrosion-resistant and capable of operating under conditions normally encountered in pool/spa operation.
- F.** All motors shall have as minimum an open, drip-proof enclosure (as defined by the latest National Electrical Manufacturers Association [NEMA] Standard ANSI/NEMA-MGI) and be constructed electrically and mechanically to perform satisfactorily and safely under the conditions of load and environment normally encountered in swimming pool/spa installations.
- G.** Motor(s) shall be capable of operating the pump under full load with a voltage variation of plus or minus ten (+-10) percent from the nameplate rating. If the maximum service factor of the motor is exceeded (at full voltage), the manufacturer shall indicate this on the pump curve.
- H.** All motors shall have thermal or current overload protection, either built in or in the line starter, to provide locked rotor and running protection.
- I.** When the pump is below the waterline, valves shall be installed on permanently connected suction and discharge lines, located in an accessible place outside the walls of the pool/spa, where they shall be readily and easily accessible for maintenance and removal of the pump.

#### **5.10 Return Inlets and Suction Outlets.**

- A.** Return inlet(s) and suction outlet(s) shall be provided and arranged to produce a uniform circulation of water and maintain a uniform disinfectant residual throughout the pool/spa. Where skimmers are used, the return inlet(s) shall be located so as to help bring floating particles within range of the skimmers.
- B.** Suction outlet(s) shall be provided with a cover that has been tested and approved by a nationally recognized testing laboratory and comply with ANSI/ASME A112.19.8M-1987, Suction Fittings For Use in Swimming Pools, Wading Pools, Spas, Hot Tubs, and Whirlpool Bathtub Appliances.
- C.** A pool/spa shall have a minimum of two (2) return inlets regardless of size. The number of return inlets shall be based on either two (2) inlets per six hundred (600) square feet of pool surface area, or two (2) inlets per twenty feet (20') of spa perimeter or fraction thereof.
- D.** Return inlet(s) from the circulation system shall be designed so as not to constitute a hazard to the bather.

- E.** The pool/spa shall not be operated if the outlet grate is missing, broken or secured in such a way that it can be removed without the use of tools.
- F.** All pools shall be provided with main drain suction outlet(s) in the lowest point of the pool floor. The spacing of the main drain(s) for suction outlet(s) shall not be greater than twenty feet (20') on centers nor more than fifteen feet (15') from each side wall.
- G.** All wading pools and spas constructed after the onset of these rules shall have a minimum of two (2) main drain outlets per pump with approved covers as outlined in **H.1-3**.
- H.** If the suction outlet system, such as a filtration system, booster system, automatic cleaning system, solar system, etc., has a single suction outlet, or multiple suction outlets which can be isolated by valves, each suction outlet shall protect against user entrapment by either:
  1. An antivortex cover,
  2. A twelve inch by twelve inch (12"x12") grate or larger,
  3. Other means as approved by the Baldwin County Health Department.
- H.** Where provided, the vacuum cleaner fitting(s) shall be located in an accessible position(s) at least six inches (6") and no greater than eighteen inches (18") below the minimum operating water level or as an attachment to the skimmer(s). A vacuum fitting cover shall be provided on each vacuum fitting and installed flush with the pool wall, or the vacuum outlet must be covered with an approved mechanism which automatically closes and automatically latches, and can only be opened with an appropriate tool.

**5.11 Surface Skimmer Systems.**

- A.** A surface skimming system shall be provided on all swimming pools/spas, and shall be designed and constructed to skim the pool/spa surface when the water level is maintained within operational parameters of the system's rim or weir device.
- B.** Skimming devices shall be designed and installed so as not to constitute a hazard to the bather.
- C.** Where automatic surface skimmers are used as the sole overflow system, at least one (1) surface skimmer shall be provided for each five hundred (500) square feet or fraction thereof of the water surface area for pools and one (1) skimmer per one-hundred and fifty (150) square feet or fraction thereof of surface area for spas. Nominal recessed areas such as stairs, swimouts, spas, etc., shall not be considered in the calculation. When skimmers are used, they shall be located to maintain effective skimming action over the entire surface of the pool/spa.

- D. Where perimeter-type surface skimming system is used as the sole surface skimming system, this system shall extend around a minimum fifty (50) percent of the perimeter of the pool.
- E. Where perimeter surface skimming systems are used, they shall be connected to the circulation system with a system surge capacity of not less than one (1) gallon for each square foot of pool surface and not less than two and one half (2 ½) gallons per square foot of spa surface.
- F. The hydraulic capacity of the overflow system shall be capable of handling one hundred (100) percent of the circulation flow.

## **SECTION 6 ELECTRICAL REQUIREMENTS AND HEATERS**

The requirements of the latest National Electrical Code (NEC), as published by the National Fire Protection Association, shall be followed.

### **6.1 Lighting.**

- A. During periods of operation sufficient lighting shall be provided to allow visibility of all portions of the pools/spa including the bottom and may be provided by natural or artificial means.
- B. Electrical wiring, fixtures, and installation shall conform with the National Underwriters Laboratory, National Electrical Code, and local building code requirements.

### **6.2 Heaters.**

- A. This section pertains to appliances using either fossil fuels such as natural gas, propane (LGP), and #2 Fuel Oil, or electric heating equipment for heating a pool/spa.
- B. Heaters shall be tested and comply with the requirements of ANSI-Z21.56a-1990 for gas application, or US 1261 for electrical applications. Heat pumps shall comply with the UL 559 specifications and be accepted by a recognized testing facility.
- C. Owner/operator shall routinely check the in-pool/spa water to ensure that the temperature does not exceed 104 degrees F. If adjustments are necessary, those adjustments shall be performed in accordance with manufacturer's instructions or by a qualified technician.
- D. **Sizing:** For efficient and economical operation, it is important that the heater be properly sized. Determine the proper size heater by first determining the area of swimming pool/spa in square feet. Then select from the manufacturer's charts the heater that is properly sized for that particular pool/spa.

- E. Installation:** The heater(s) shall be installed in accordance with all federal, state, and local codes as well as the manufacturer's recommendations.
- F. Support:** Heater shall be installed on a surface with sufficient structural strength to support the heater when it is full of water and operating. The heater shall be level and not able to move after plumbing, gas and/or electrical connections are completed.
- G. Combustible Surfaces:** If the heater requires a non-combustible surface per the manufacturer, it shall be placed on cement or other accepted surface per ANSI-Z21.56.1990 or federal, state, and local codes.
- H. Clearance:** When installing a heater, adequate clearances shall be maintained on all sides and over the top of the unit. Consult manufacturer's instructions for proper clearances.
- I. Ventilation:** The heater shall have adequate ventilation in order to assure proper operation.
- J. Make Up Air:** When installing fossil fuel heater indoors, proper openings to the room are a necessity. The heater shall be installed in accordance with federal, state, or local codes and the manufacturer's recommendations.
- K. Heater Circulation System:** Water flow through the heater, any bypass plumbing installed, and back-siphoning protection, and the use of heat sinks shall be done in accordance with the manufacturer's recommendations and local codes, if any.

### 6.3 Heating Energy Source.

- A. Natural Gas Energy Supply:** The heater gas supply piping shall comply with the manufacturer's recommendations and ANSI/NFPA 54-1984.

**IMPORTANT SAFETY NOTE:** Install a gas cock, properly sized and readily accessible outside the jacket, to stop the flow of natural gas at the heater for service or emergency shutdown.

- B. Propane Energy Supply:** Whenever a propane (LPG) appliance is installed, special attention shall be given to ensure that the Storage Tank, Supply Piping, and Regulator shall be adequately sized to ensure operating fuel pressures as specified by the appliance manufacturer. Consult the fuel supply company and ensure that the system is installed in accordance with the National Fuel Gas Code (ANSI-Z223.1/NFPA 58-1989).

**IMPORTANT SAFETY NOTE:** Propane gas is heavier than air and therefore can create an extreme hazard of suffocation or explosion if the heater is installed in a pit or enclosed area. NFPA 58-1989 contains provisions for installing valves and other controls in pits and similar areas.

**IMPORTANT SAFETY NOTE:** Install a gas cock, properly sized and readily accessible outside the jacket, to stop the flow of natural gas at the heater for service or emergency shutdown.

- C. Electrical Energy Supply:** Electric heating appliances shall be installed in accordance with the National Electrical Code (NEC) and any federal, state, or local codes.

**IMPORTANT SAFETY NOTE:** Grounding and Bonding- The requirements for grounding and bonding are particularly important and shall be adhered to if the hazard of electrical shock is to be reduced.

**SPECIAL CONSIDERATION:**

Some manufacturers recommend that the heater be turned off prior to stopping the water flow. Mechanisms such as a “fireman’s switch” adapted to the time clock will turn the heater off long enough for it to cool down before the time clock turns the pump off.

NOTE: The “fireman’s switch” does not protect against a manual override or a system shut down in the event of power failure.

## **SECTION 7 WATER SUPPLY AND WASTE WATER DISPOSAL**

### **7.1 Water Supply.**

- A.** The potable water source serving the pool/spa shall meet the requirements of **Appendix A** before the bather uses the pool/spa.
- B.** No direct mechanical connection shall be made between the potable water supply and the swimming pool/spa, chlorinating equipment, or the system of piping for the pool/spa, unless it is protected against backflow and back-siphonage in a manner approved by the (state or local) authority, or through an air gap required by local plumbing codes and visually accessible for inspection.
- C.** An over-the-rim spout, if used, shall be located under a diving board, adjacent to a ladder, or otherwise properly shielded so as not to create a hazard. Its open end shall have no sharp edges and shall not protrude more than two inches (2”) beyond the edge of the pool.

### **7.2 Waste Water Disposal.**

- A.** Backwash water may be discharged into a sanitary sewer through an approved air gap, or into an approved subsurface disposal system or by other means required by local plumbing codes.

## SECTION 8 DISINFECTANT EQUIPMENT AND CHEMICAL FEEDERS

Disinfectant equipment and chemical feeders, hereafter referred to jointly as “equipment”, shall comply with the requirements of ANSI/NSF-50 *Circulation system components and related materials for swimming pools, spas/hot tubs*. The disinfection equipment shall be capable of precisely introducing a sufficient quantity of an approved disinfecting agent to maintain the appropriate recommended guidelines as outlined in **Appendix A**.

Every pool/spa shall be required to have at least one unit of disinfectant dispensing equipment in compliance with **Section 8.1.A-C**. Additional units may be required to maintain chemical and physical parameters of the pool/spa water.

The pool/spa shall be continuously disinfected by a disinfecting agent that imparts an easily measured residual. The disinfecting agent used shall be subject to field testing procedures that are simple and accurate. Gaseous chlorine, chlorine compounds, bromine compounds, or other bactericidal agents shall be acceptable when meeting the disinfectant level parameters outlined in **Appendix A**. Bactericidal agents shall be registered by the U.S. Environmental Protection Agency (EPA).

- 8.1 Chemical Feeders.** The installation and use of chemical feeders shall conform to Section **8.1.A-C**.
- A.** When using chemical feeders, it is extremely important that they be installed downstream from the filter and heater. Erosion-type feeders shall be allowed to feed their solution in the suction side of the pump.
  - B.** If the chemical feeder is equipped with its own pump, it shall be installed so it introduces the gas or solution downstream from the heater, and if possible, at a position lower than the heater outlet fitting.
  - C.** Chemical feed pumps shall be wired so they cannot operate unless the filter pump is running. If the chlorinator has an independent timer, the filter and chemical feed pump timers shall be interlocked.
- 8.2 Training.** Personnel responsible for the daily operation of the disinfection agent and chemical feeder equipment shall be properly trained in the operation of that equipment, the procedure for performing and interpreting the necessary chemical field tests, and the appropriate emergency procedures (**see Appendix B, Use of Elemental Chlorine**).
- 8.3 Test Kit.** Every public pool/spa shall have a chemical test kit available for the determination of pH, chlorine or bromine residuals, cyanuric acid (if used), total alkalinity, and calcium hardness. The test kit shall be capable of at least measuring pH and disinfectant residual ranges, as detailed in **Appendix A**. The method used in determining the free available chlorine residual shall be such that chloramines or other chlorine compounds that may be present in the pool/spa do not affect the determination. A DPD kit must be used, no OTO.
- 8.4 Chemical safety.**

- A. No disinfectant chemical or any other treatment chemical that is toxic or irritating to humans may be added to the pool/spa from the deck of the pool/spa while it is in use. If chemicals additions are made from the deck, the pool/spa shall be closed from use for at least one-half hour. The operator shall test the pool/spa water as appropriate before allowing use of the swimming pool/spa. The chemical addition and test results shall be recorded in the pool/spa records.
- B. Chemicals shall be stored and handled in accordance with the manufacturer's recommendations.
- C. Material Safety Data Sheets (MSDS) for the chemicals used at the pool/spa shall be at the facility in a location known and readily accessible to the facility staff.
- D. Chemical storage containers shall be clearly labeled.
- E. A warning sign shall be placed on the door of rooms where chemicals are used or stored, or where bulk containers are located.

## **SECTION 9 SPECIFIC SAFETY FEATURES (Interactive water features are except from Section 9)**

### **9.1 Handholds.**

- A. A public pool shall be provided with a suitable handhold around its perimeter in areas where depths exceed three feet six inches (3'6"). Handholds shall be provided no further apart than four feet (4') and shall consist on any one (1) or a combination of the items listed in **Section 9.1.A.1-3.**
  - 1. Coping, ledge, or deck along the immediate top edge of the pool which provides a slip-resistant surface of at least four inches (4") minimum horizontal width and located at or not more than twelve inches (12") above the waterline; or
  - 2. Ladders, stairs, or seat ledges; or
  - 3. A secured rope or rail placed at or not more than twelve inches (12") above the waterline.

### **9.2 Depth Markers.**

- A. Depth of water in feet shall be plainly and conspicuously marked at or above the waterline on the vertical pool/spa wall and on the top of the coping or edge of the walk next to the pool/spa.
- B. Spas shall have a minimum of two (2) permanent depth markers (One of the spa wall and one on the spa deck) regardless of spa size and shape. Spa depth markers shall comply with **Section 9.2.C-F.**

- C. Depth markers on the vertical pool/spa wall shall be positioned to be read from the water side.
- D. Depth markers on the deck shall be within eighteen inches (18") of the water edge and positioned to be read while standing on the deck facing the water.
- E. Depth markers shall be slip-resistant and have a four inch (4") minimum height. Numbers shall be of contrasting color to the background on which they are applied, and the color shall be of a permanent nature.
- F. Depth markers shall be installed at intermediate increments of water depth not to exceed two feet (2'), nor spaced at distances greater than twenty-five feet (25') intervals.
- G. Depth markers shall be installed at the maximum and minimum water depths and at all points of slope change.
- H. Depth markers shall be arranged uniformly on both sides and both ends of the pool.
- I. Depth markers on irregularly shaped pools shall designate depths at all major deviations in shape as well as conform to the foregoing Section.
- J. Depth markers for pools/spas shall have units of measurement spelled out in "feet" or "inches" or abbreviated as "FT", "IN", or feet and fractions of a foot. In addition to feet and inches, the unit of measurement must also be spelled out in "meters" or abbreviated as "M". Pools/spas permitted prior to these regulations shall have 2 years from the commencement of these regulations to comply with the meter depth marker requirement.
- K. Pool/spa depths of five feet (5') or less shall display the "No Diving" wording and symbol with a four inch (4") minimum height and slip-resistant surface. No diving markers shall be placed on the deck at intervals of no more than twenty-five feet (25'). Pools/spas permitted prior to these regulations shall have 2 years from the commencement of these regulations to comply with the no diving marker requirement.

**9.3 Lifesaving Equipment.** Lifesaving equipment shall be available at the pool side and conform to **Section 9.3.A.-D.**

- A. A light, non-telescoping, strong pole not less than twelve feet (12') long, including the body hook. (INTERACTIVE WATER FEATURES ARE EXEMPT)
- B. A minimum one-fourth inch (1/4") to three-eighth inch (3/8") diameter throwing rope as long as one and one-half (1 1/2) times the maximum width of the pool or thirty feet (30'), whichever is less, to which has been firmly attached a ring buoy with an outside diameter of approximately fifteen inches (15") or a similar flotation device. (INTERACTIVE WATER FEATURES ARE EXEMPT)

- C. Rules and regulations for pool safety shall be easily readable, simply stated, conspicuously posted, printed with a minimum of one-half inch (1/2") lettering and shall include but not be limited to the following:
1. *No glass in the pool area.*
  2. *No animals allowed in the pool area.*
  3. *The maximum bathing load.*
  4. *Bathers with diarrhea, skin diseases, open lesions, etc. shall be excluded from the pool.*
  5. *Hours of operation.*
  6. *All bathers must shower before entering the pool.*
- D. Rules and regulations for spa safety shall be posted near the spa and shall include but is not limited to the following:
1. Risk of Fetus Injury-Hot water exposure limitations vary from person to person. Pregnant women and small children should not use spa prior to medical consultation.
  2. Risk of Drowning- Persons suffering from heart disease, diabetes, high or low blood pressure and other health problems should not enter the spa without prior medical consultation and permission from their doctor.
  3. Risk of Drowning- Do not use the spa while under the influence of alcohol narcotics, or other drugs that cause sleepiness, drowsiness, or raise/lower blood pressure.
  4. Risk of Child Drowning- Unsupervised use of spa by children is prohibited.
  5. Risk of Injury- Before entering, check spa water temperature. Do not use the spa if the temperature is above 104 degrees F.
  6. Risk of Drowning- Use caution when bathing alone. Overexposure to hot water may cause nausea, dizziness and fainting. Lower water temperatures are recommended for extended use (exceeding 10-15 minutes) and for young children.
  7. Risk of Injury- Enter and exit slowly.
  8. Risk of Injury- Keep all breakable objects out of the spa area.
  9. Risk of Shock- Never place electrical appliances (telephone, radio, etc.) within five feet (5') of the spa.

10. Risk of Shock- The spa shall not be operated during severe weather conditions, i.e. electrical storms, tornadoes, etc.

11. Secure the facility against unauthorized access.

12. Risk of Drowning- Do not allow the use of or operate spa if the suction outlet cover is missing, damaged, or loose.

E. A telephone for the pool/spa with posted names and phone numbers of the nearest available police, fire, ambulance service and/or rescue unit, and/or 911, if available. The use of a cellular phone or a portable wireless phone for an emergency phone is prohibited.

#### 9.4 **Barriers.** (Interactive water features are excluded from this requirement.)

A. Swimming pools and wading pools shall be protected by a fence, wall, building, enclosure, or solid wall of durable material of which the pool itself may be constructed, or any combination thereof. Artificial barriers shall be provided so as to afford no external handholds or footholds, be at least four feet (4') in height, and be equipped with a self-closing and positive self-latching closure mechanism at a height of at least forty-five inches (45") above the ground and provided with hardware for locking.

B. The barrier shall have no opening that allows the passage of a sphere of four inches (4") in diameter.

C. Wading pools shall be physically separated from the main pool by barriers addressed in **Section 9.4.A-B**. Wading pools constructed prior to adoption of these rules shall comply with this rule within two (2) years of the onset of these rules.

## **SECTION 10 DRESSING FACILITIES FOR CLASS A AND B PUBLIC POOLS**

### 10.1 **Dressing Facilities Requirements.**

A. Dressing and sanitary facilities shall be provided unless these facilities are provided in connection with the general development for other purposes and are of adequate capacity and number and in close proximity to the pool.

B. Where there is a requirement for the dressing and sanitary facility to be made available to the handicapped, the design of the structure shall be in accordance with (state or local) authority handicap ramp, handrail and door size requirements.

C. Dressing and sanitary facilities shall be provided with separations for each sex with no interconnection. The rooms shall be well-lighted, drained, ventilated, and of good construction, with impervious materials. They shall be developed and planned so that good sanitation can be maintained throughout the buildings at all times.

- D. Partitions between portions of the dressing room area, screen partitions, shower, toilet, and dressing room booths shall be of durable material not subject to damage by water and shall be designed so that a waterway is provided between partitions and floor to permit thorough cleaning of the walls and floor areas with hoses and brooms.
- E. Shower and dressing booths shall be provided in female dressing space. Dressing booths shall be provided with curtains or other means of seclusion. This condition may be subject to variation for schools and other institutional use where a pool may be open to one (1) sex at a time.
- F. Floors of the dressing facility shall be free of joints or openings and shall be continuous throughout the areas. Floors shall have a slip-resistant surface that shall be relatively smooth to insure complete and ease in cleaning. Floor drains shall be provided, and floors shall be sloped not less than one-fourth inch (1/4") per foot toward the drains to insure positive drainage.

## **10.2 Lavatories, Showers and Toilets.**

Lavatories, showers, and toilets for Class A and B public pools shall meet or exceed the following general requirements:

- A. The minimum criteria for bathhouse sanitary facilities shall be based upon dressing and the anticipated maximum attendance of users and their sexes in accordance with local applicable building codes.
- B. One (1) water closet combination, and one (1) lavatory, and one (1) urinal shall be provided for the first one hundred (100) male users. One (1) additional water closet, lavatory, and urinal shall be provided for each additional two hundred (200) male users or major fraction thereof.
- C. Two (2) water closets and two (2) lavatories shall be provided for the first one hundred (100) female users. One (1) additional water closet and lavatory shall be provided for each additional one hundred (100) female users or major fraction thereof.
- D. A minimum of two (2) shower heads shall be provided for each sex. One (1) additional shower head for each sex shall be added for each additional fifty (50) male or female users.
- E. Soap dispensers and sanitary towels or hand drying devices shall be provided at each lavatory.
- F. Fixtures shall be installed in accordance with local plumbing codes and shall be properly protected against back-siphonage.
- G. Fixtures shall be designed so that they may be readily cleaned. Frequent cleaning and disinfecting shall not cause damage.

- H. Adequately sized, covered, lined trash receptacles shall be provided in the men's and women's sanitary facility area.

**10.3 Visitor and spectator areas.** There shall be a separation between the spaces used by visitors in street clothes and those spaces used by bathers. Toilet facilities may be shared by spectators and pool users when the facility is designed to accommodate the total capacity of both groups.

## **SECTION 11 OPERATION AND MANAGEMENT**

**11.1 Records.** - Operators of public pools/spas shall keep records pertaining to the operation and maintenance of the pool/spa which they operate. Such records shall be maintained daily during periods in which the pool/spa is open. Records shall include at least the following information checked daily: test results for sanitizer and pH, flow rate, water temperature of heated facility. The following shall be documented as performed: date and time of filter backwash, maintenance and/or equipment malfunction including filter cleaning. All records and reports shall be kept available for inspection by the health department for a period of at least one (1) year. If a pool/spa is reopened by the Certified Pool Operator after health department closure, the Certified Pool Operator must document date, time, and corrective action(s) of reopening. A Certified Pool Operator may only reopen a pool/spa after health department closure according to **Section 2.5.D.5.**

**11.2 Supervision.** - Public pools/spas shall be maintained under the supervision and direction of a properly trained operator who shall be responsible for the sanitation, safety and proper maintenance of the pool/spa and all physical and mechanical equipment and records. (Training can be obtained by completion of the National Swimming Pool Foundation's Swimming Pool/Spa Operator's Training Course or state or local training course, if approved the Baldwin County Health Department) If, during the term of the Operation Permit, the Certified Pool Operator responsible for the facility changes, then both the pool/spa proprietor and the former Certified Pool Operator shall notify the health department immediately of the change.

**11.3 Accidents.** - Reports of serious accidents or deaths occurring on the pool/spa premises shall be reported to the health department immediately. All records and reports shall be kept available for inspection by the health department for a period of at least one (1) year.

- A. **Fecal and Vomit Accidents:** The Baldwin County Health Department recommends following the procedures for fecal and vomit accidents outlined by the Center for Disease Control. All fecal and vomit accidents shall be reported to the Baldwin County Health Department.

**11.4 Procedures for When Infection is Suspected.** -

- A. **General:** When the Health Officer has reasonable cause to suspect possible disease transmission by any public swimming/spa he shall make any investigation as indicated and shall take appropriate action. The Health Officer may require any or all of the following measures:

1. The immediate closure of the public swimming pool/spa until, in the opinion of the Health Officer, no further danger of disease outbreak exists.

**11.5 Maximum User Load.** –

- A. Maximum bather load at Class B or C pools shall be in accordance with the following table:

<b>Pool/Deck area</b>	<b>Shallow instructional or wading areas</b>	<b>Deep area (not including the diving area)</b>	<b>Diving area (per each diving board)</b>
Pools with minimum deck area (see <b>Section 4.1.F.1-5</b> )	15 sq. ft. per user	20 sq. ft. per user	300 sq. ft.
Pools with deck area at least equal to water surface area	12 sq. ft. per user	15 sq. ft. per user	300 sq. ft.
Pools with deck area at least twice the water surface area	8 sq. ft. per user	10 sq. ft. per user	300 sq. ft.

Where there is an anticipated maximum load in the swimming pool, there shall not be less than fifteen (15) square feet per user. Consideration shall be taken by the designer/operator to make certain that there is adequate room for the bathers.

- B. The maximum user load for spa shall not exceed one (1) person per nine square feet (9 sq. ft.) of surface area.

**SECTION 12 WATER RECREATION ATTRACTIONS**

General, Water recreation attraction projects shall be designed and constructed within the limits of sound engineering practices. Design engineers may consult with the Board in reference to concepts of design variations and to areas where potential problems may exist. In addition to the requirements of this section, compliance is required with all other applicable sections of these Rules.

**12.1 Water Slides.**

- A. **Water Slide Facility.** A recreational water slide facility shall consist of one or more flumes, plunge pool, pump reservoir, filtration, disinfection, and chemical treatment facilities.
- B. **Water Slide Plunge Pool.** Plunge pools are located at the base of slide flumes. They shall be constructed of concrete or other structurally rigid impervious materials with a smooth slip resistant finish. The plunge pool design shall be as follows:

- 1. Plunge pool depth.** The minimum plunge pool operating water depth at the slide flume terminus shall be at least three feet (3'). This depth shall be maintained for a minimum distance of twenty feet (20') in front of the slide terminus to the base of the steps. The plunge pool water depth shall be commensurate with safety and the ease of exit from the plunge pool. Depth markings shall be provided as per the requirements of these rules.
- 2. Plunge pool dimension.** The plunge pool dimension between any slide flume exit or terminus and the opposite side of the plunge pool shall be a minimum of twenty feet (20') excluding the steps.
- 3. Slide flume terminus.**
  - a.** The slide flume terminus shall be at a minimum depth of six inches (6") below the plunge pool operating water surface level or two inches (2") above if water flume is level for a minimum of ten feet (10') before exit end.
  - b.** The minimum distance between any plunge pool side wall and the outer edge of any slide terminus shall be five feet (5'). The minimum distance between adjacent slide flumes shall be six feet (6').
  - c.** A minimum length of slide flume of ten feet (10') shall be perpendicular to the plunge pool wall at the exit end of the flumes.
- 4. Plunge pool main drains.** The plunge pool shall have a minimum of one (1) main drain with separate piping and valve to the filtration system collector tank. The velocity through the openings of the main drain grate shall not exceed one and one-half (1 ½) feet per second at the design flow rate of the recirculation pump. The main drain piping shall be sized to handle one-hundred (100) percent of the design flow rate of the filtration system with a maximum flow velocity of three (3) feet per second.
- 5. Plunge pool floor slope.** The plunge pool floor shall slope to the main drains and the slope shall not exceed one (1) foot in ten (10) feet.
- 6. Stairs and steps.** All steps to the top of the flume shall be a minimum of four feet (4') wide, one foot (1') rise, well-drained, non-slip, and separated from the flume by a physical barrier, set back from the flume so that users cannot contact it on the way down.
- 7. Plunge pool decks.**
  - a. Width.** The minimum width of plunge pool decks along the exit side shall be ten feet (10'). There shall be a pool deck along the side opposite the plunge pool weir, and this deck shall have a minimum width of four feet (4').
  - b. Slope.** Must comply with American National Standard.

- 8. Pump reservoirs.** Pump reservoirs shall be made of concrete or other impervious material with a smooth, slip-resistant finish and shall be connected to the plunge pool by a weir. Pump reservoir design shall be as follows:

  - a.** Pump reservoir volume. The minimum reservoir volume shall be equal to two (2) minutes of the combined flow rate in gpm of all filter and slide pumps for masonry type slides and five (5) minutes of the combined flow in gpm of all filter and slide pumps for non-masonry type slides.
  - b.** Pump reservoir security. Pump reservoirs shall be accessible only to authorized individuals.
  - c.** Pump reservoir maintenance accessibility. Access decks shall be provided for the reservoir such that all areas are accessible for vacuuming, skimming, and maintenance. The decks shall have a minimum width of four feet (4') and shall have a minimum slope of three inches (3") in ten feet (10') away from the reservoir.
  - d.** Pump reservoir slide pump intake. The slide pump intakes shall be located in the pump reservoir and shall be designed to allow cleaning without danger of operator entrapment.
  - e.** Pump reservoir main drains. The pump reservoir shall have a minimum of one (1) main drain with separate piping and valve to the filtration system collector tank and the velocity through the openings of the main drain grates shall not exceed one and one-half (1 ½) feet per second at the design flow rate of the filtration system pump. The main drain piping shall be sized to handle one-hundred (100) percent of the design flow rate of filtration system pump with a maximum flow velocity of three (3) feet per second.
- 9. Perimeter overflow gutter or skimmers.** Plunge pools and pump reservoirs shall have a perimeter overflow gutter system or skimmers which shall be an integral part of the filtration system.

  - a.** Perimeter overflow gutter system. Perimeter gutter systems shall meet the American National Standard, except the gutters are not required directly under slide flumes or along the weirs which separate plunge pools and pump reservoirs.
  - b.** Surface skimmers may be used in lieu of perimeter overflow gutters and shall be appropriately spaced and located according to the structural design. Unless an overflow gutter system is used, surface skimmers shall be provided in the plunge pool and in the pump reservoir and the skimmer shall be designed as stated in the American National Standard.
- 10. Recirculation rate.** The recirculation/filtration system of water slides shall recirculate and filter a water volume equal to the total water volume of the facility in a period of one (1) hour or less.
- 11. Water disinfection and balance** must be in compliance with the American National Standard.

## **12.2 Water Amusement Lagoons.**

- A.** Water amusement lagoons shall be designed and constructed within the limits of sound engineering practice. The design engineer may consult with the Board prior to preparation and submission of engineering plans and specifications for water amusement lagoons.
- B.** Water amusement lagoons shall be constructed of concrete or other structurally rigid, impervious materials with a smooth, slip-resistant finish. These lagoons shall be of such shape and design as to be operated and maintained in a safe and sanitary manner.
- C.** The recirculation/filtration system of water amusement lagoons shall be capable of a minimum of one (1) complete turnover every thirty (30) minutes.

## **12.3 Wave Pools.**

- A.** Wave pools shall be designed and constructed within the limits of sound engineering practice. The design engineer may consult with the Board prior to the preparation and submission of engineering plans and specifications for wave pools.
- B.** Wave pools shall be constructed of concrete or other impervious materials with a smooth, slip-resistant finish. These pools shall be of such shape and design as to be operated and maintained in a safe and sanitary manner.
- C.** The recirculation-filtration system of wave pools shall be capable of a minimum of one turnover every two hours.
- D.** One end of the pool may have a beach-type front with a minimum depth and water walk-out.

## **12.4 Leisure Rivers.**

- A.** A leisure river shall be designed and constructed within the limits of sound engineering practice. The design engineer may consult with the Board prior to the preparation and submission of engineering plans and specifications for leisure pools.
- B.** Entry/exit locations shall be limited to designer/manufacturer/operator established locations to protect the safety and well-being of the users.
- C.** The recirculation/filtration system of leisure rivers shall be capable of a minimum of one turnover every four (4) hours.
- D.** The Board shall require such measures as deemed necessary to assure the health and safety of special purpose pool patrons.

- E. Competition pools meeting National Collegiate Athletic Association (NCAA), Federal Internationale de Natation Amateur (FINA), United States Diving, or United States Swimming requirements are not considered special purpose pools.

## **12.5 Interactive Water Features.**

### **A. Construction.**

1. The bottom of an interactive water feature shall slope a maximum of one foot (1') in twelve feet (12') to an approved drain. The bottom of the feature shall be completely self-draining with no standing water.
2. Surfaces of the feature shall be a slip resistant finish impervious to water.
3. A minimum four feet (4') wide slip resistant walking surface shall extend around the perimeter of the feature sufficient that the spray will not exceed the walkway area in normal conditions.

### **B. Circulation.**

1. The source water for the feature shall be from an approved potable water supply.
2. Water drained to waste shall be disposed in a manner approved by local authorities or the department after use in the feature.
3. The entire volume of water shall circulate through an approved treatment system every thirty (30) minutes or less.
4. Inlets and Outlets. Permit holder must ensure spray nozzles are designed and maintained to not inflict physical damage to bathers. Design and construction shall include evaluation of forces of the spray nozzle including velocity, pressure and total force in proximity to bather's eyes and other body orifices.
  - a. Permit holder shall ensure outlet drains and recirculation drains are designed and maintained to provide sufficient capacity to prohibit water accumulation in each feature.
  - b. Outlet drains must:
    1. be located at the lowest point of the feature;
    2. have at least two (2) main drains;
    3. have openings that prevent the passage of a sphere over one-half inch (1/2") in diameter;
    4. have drain grates that withstand the forces of the bathers; and
    5. have drain grates only removable with specific tools.

- B. Chemical feeders shall be provided in accordance with **Section 8.1.A-C.**

**APPENDIX A**

**CHEMICAL OPERATIONAL PERIMETERS FOR POOLS**

<b>PARAMETER</b>	<b>MINIMUM LEVEL</b>	<b>MAXIMUM LEVEL</b>
CHLORINE	1 PPM	5 PPM
COMBINED CHLORINE	0 PPM	.2 PPM
BROMINE	2 PPM	10 PPM
ORP	650 mV	---
Ph	7.2	7.8
TOTAL ALKALINITY	60 PPM	180 PPM
TOTAL DISSOLVED SOLIDS	300 PPM	3000 PPM
CALCIUM HARDNESS	150 PPM	500 PPM
CYANURIC ACID (IF USED)	10 PPM	100 PPM
TEMPERATURE (HEATED POOLS)	---	104 DEGREES F.
TURBITY	-----	POOL FLOOR MUST BE VISIBLE AT DEEPEST POINT

**WATER CHEMISTRY PERIMETERS FOR SPAS**

<b>PARAMETER</b>	<b>MINIMUM LEVEL</b>	<b>MAXIMUM LEVEL</b>
CHLORINE	1 PPM	10 PPM
COMBINED CHLORINE	0 PPM	.5 PPM
BROMINE	2 PPM	10 PPM
ORP	650 mV	---
Ph	7.2	7.8
TOTAL ALKALINITY	60 PPM	180 PPM
TOTAL DISSOLVED SOLIDS	300 PPM	3000 PPM
CALCIUM HARDNESS	150 PPM	500 PPM
CYANURIC ACID (IF USED)	10 PPM	100 PPM
MAXIMUM TEMPERATURE FOR SPAS	---	104 DEGREES F.
TURBITY	-----	SPA FLOOR MUST BE VISIBLE AT DEEPEST POINT

## **APPENDIX B**

### **USE OF ELEMENTAL CHLORINE**

#### **A. GENERAL**

Chlorine is one of the chemical elements. The gas has a characteristic odor and greenish yellow color and is about two and one-half (2 ½) times as heavy as air. Chlorine is shipped in Department of Transportation specification steel containers. In the cylinder the chlorine has both a liquid and a gas phase. All cylinders are equipped with the Chlorine Institute standard chlorine cylinder valve.

Chlorine is a “hazardous material” subject to Department of Transportation requirements. When used for pool disinfection, chlorine is considered a pesticide and as such is subject to pertinent regulations of the U.S. Environmental Protection Agency, as well as various state agriculture and environmental regulations.

Users of chlorine must be trained as to proper procedures for handling chlorine and as to appropriate emergency procedures.

#### **B. EQUIPMENT AND INSTALLATION**

1. Chlorination equipment should be located so that equipment failure or malfunction will have minimum effect on evacuation of pool/spa patrons in an emergency.
2. Elemental chlorine feeders should be activated by a booster pump using recirculated water supplied via the recirculation system. The booster pump should be interlocked to the filter pump to prevent feeding of chlorine when the recirculation pump is not running.
3. The chlorinator, cylinders of chlorine and associated equipment should be housed in a reasonably gas-tight and corrosion-resisting housing having a floor area adequate for the purpose. Cylinders should always be stored in an upright position and properly secured.
4. All enclosures should be located at or above ground level. The enclosure should be provided with: ducts from the bottom of the enclosure to the atmosphere in an unrestricted area, a motor-driven exhaust fan capable of producing at least one air change per minute, and louvers of good design near the top of the enclosure for admitting fresh air. Warning signs should be posted on the doors. It is recommended that the doors to the chlorine room should open away from the pool/spa.
5. Electrical switches for the control of artificial lighting and ventilation should be on the outside of the enclosure adjacent to the door.
6. Contents of a chlorine cylinder can be determined only by weight; therefore, facilities should include a scale suitable for weighting the cylinders. Changing cylinder(s) should be accomplished only after weighing proves contents of cylinder to be exhausted. Care must be taken to prevent water suck-back into the cylinder when empty by closing the cylinder valve.

7. Connections from the cylinders to the system depend on the type of chlorinator to be used and should comply with the chlorinator manufacturer's recommendation.
8. It is recommended that an automatic chlorine leak detector and alarm be installed in the chlorinator room.
9. Respirators approved by the National Institute for Occupational Safety and Health (NIOSH) should be provided for protection against chlorine. It is recommended that at least one approved self-contained breathing apparatus be provided. Respiratory equipment should be mounted outside the chlorine enclosure. Occupational Safety and Health Administration (OSHA) regulations require training and maintenance programs for respirators.
10. Containers may be stored indoors or outdoors. Full and empty cylinders should be segregated and appropriately tagged. Storage conditions should: (a) minimize external corrosion, (b) be clean and free of trash, (c) not be near an elevator or ventilation system, (d) be away from elevated temperatures or heat sources.

### **C. OPERATIONAL PROCEDURES**

1. A specific person should be made responsible for chlorination operations and should be trained in the performance of routine operations including emergency procedures and leak control procedures.
2. Chlorine cylinders must be handled with care. Valve protection caps and valve outlet caps should be in place at all times except when cylinder is connected for use. Cylinders must not be dropped and should be protected from falling objects. Cylinders should be used on a first-in, first-out basis. New, approved washers should be used each time a cylinder is connected.
3. It is recommended that a safety wall chart be posted in or near the chlorine enclosure and a second chart in the pool/spa office near the phone. Such charts are available for many suppliers and from the Chlorine Institute. The telephone number of the chlorine supplier should be shown on this chart.
4. Although chlorine suppliers make every effort to furnish chlorine in properly conditioned cylinders, chlorine gas leaks may still occur. Pool personnel should be informed about leak control procedures and consideration should be given to providing a Chlorine Institute Emergency Kit A.
5. Chlorine suppliers are equipped with a Chlorine Institute Emergency Kit A, that contains devices for capping leaks at cylinder valves and some leaks that occur in the cylinder wall. Further information on these kits and training slides demonstrating their use are available from the Chlorine Institute.
6. As soon as a container is empty, the valve should be closed and the lines disconnected. The outlet cap should be applied promptly and the valve protection hood attached. The open end of the disconnected line should be plugged or capped promptly to keep atmospheric moisture out of the system.
7. To find a chlorine gas leak, use a plastic bottle containing 26E BE ammonia capable of releasing only vapors when squeezed. A white cloud will result if there is any chlorine leakage. Never use water on a chlorine leak.

For additional information contact The Chlorine Institute, Inc at 703-741-5760.

