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The following pages are the Pool and Spa Ordinances for the City of Branson, Missouri. These ordinances ***include*** all changes proposed and accepted by the Board of Aldermen.

The Taney County Health Department enforces these ordinances at all Pool and Spas inside the city limits of Branson, Missouri. If you have any questions, please feel free to contact one of our inspectors at (417) 334 – 4544.

POOL AND SPA ORDINANCE

Sec. 46-3. - Definitions.

ASME/ANSI standard means a standard accredited by the American National Standards Institute and published by the American Society of Mechanical Engineers.

Automatic pump shut-off system means a device designed to sense a drain blockage and shut off the pump system.

Bathhouse means the dressing, shower and sanitary facilities that shall be provided for all swimming pools.

Drain disablement means a device or system that disables the drain. Physical removal of submerged suction outlet from the bottom of the pool as long as there is another source of water for the suction side of the pump available.

Gravity drainage system means a system that utilizes a separate storage collector tank from which the pool circulation pumps draw water and remove the need for direct suction at the pool.

Health official means the health officer of the city or his duly authorized agent.

Imminent health hazard means a significant threat or danger to health that is considered to exist when there is evidence sufficient to show that a product, practice, circumstance, or event creates a situation that requires immediate correction or cessation of operation to prevent illness or injury based on the following:

(1) Number of potential illnesses or injuries;

(2) Nature, severity, and duration of the anticipated illness or injury;

(3) Effect on the environment or the surrounding geographical area.

Main drain means a submerged suction outlet typically located at the bottom of a pool or spa that connects to a recirculation pump for water circulation and filtration.

Multiple main drains means a system that consists of, at a minimum, two fully submerged suction outlets per pump.

Pre-open inspection fee means inspections required during plan review process or at the time of change in ownership. These fees are to be charged in addition to all other fees.

Public swimming pool means any place open to the public for swimming or recreative bathing whether or not a fee is charged for use thereof, and shall be classified as pools, outdoor or indoor, which are entirely of artificial construction.

Safety vacuum release system (SVRS) means a release system which ceases operation of the pump, reverses the circulation flow or otherwise provides a vacuum release at a suction outlet when a flow blockage is detected and that has been tested by an independent third party and found to conform to ASME/ANSI standard A112. 19.17.

Single main drain means a submerged suction outlet connected to one pump. A pool may have more than one single main drain if it has multiple suction outlets that are each connected to a single pump.

Spa means a pool designed for recreational and/or therapeutic use and not drained, cleaned and refilled for each individual. It may include, but shall not be limited to, hydrojet circulation, hot water, cold water, mineral baths, air induction systems, or any combination thereof. A pool used under direct supervision of qualified medical personnel is excluded.

Suction-limiting vent system means a pipe teed to suction the side of the circulation system on one end and open to the atmosphere on the opposite end. When a blockage occurs at the main drain, air is introduced into the suction line causing the pump to lose prime and relieve suction at the main drain.

Unblockable drain means a drain of any size and shape that a human body cannot sufficiently block to create a suction entrapment hazard with minimum dimensions of 18 inches by 23 inches or diagonal measure of 29 inches or larger.

Water slide means of one or more flumes, a plunge pool, or dedicated plunge area of a multiple use pool, a pump reservoir, and water treatment facilities. The plunge pool is located at the base of the flume. The pump reservoir is for the flume pump intake.

DIVISION 1. - GENERALLY

Sec. 46-95. - Scope.

(a) *Applicability of state guidelines.* The swimming pool code set out in this article, as adopted by the city, shall be equal to, if not greater than, the current state health department guidelines for the design and operation of a swimming pool, spa or water facility. In the event of a conflict the more stringent shall apply.

(b) *Inspections.* All public pools, spas and water facilities within the city limits, and those outside the city limits that are serviced by the city water and sewer service, shall be inspected for safety and water quality on a routine schedule by the health official.

(c) *Permit.* A pool and spa permit shall be required and displayed in a conspicuous place. The fees for these permits shall be paid according to the city fee schedule.

(d) *Special pool features or uses.* Standards for unique features of spas, wave pools, zero-depth pools and water slides are provided in separate sections. Any pools used for other special purposes, such as therapy or competition, require additional design consideration and should be handled on an individual basis.

(e) *Exemption of private pools.* These standards do not apply to private pools.

Sec. 46-96. - Patron loading.

(a) *Designation of areas.* For purposes of computing patron load within the pool enclosure, those portions of the swimming pool five feet or less in depth shall be designated the "shallow area." Those portions of the swimming pool over five feet in depth shall be designated the "deep area."

(b) *Area loading.*

(1) *Shallow area.* Fifteen square feet of pool water surface area shall be provided for each patron.

(2) *Deep area.* Twenty-five square feet of pool water surface area shall be provided for each patron.

(3) *Diving area.* Three hundred square feet of pool water surface area shall be reserved around each diving board or diving platform, and this area shall not be included in computing the permissible patron load.

(4) *Excess deck allowance.* Additional allowance will be made on the basis of one additional patron allowed per each 50 square feet of pool deck in excess of the minimum area of deck required.

Sec. 46-97. - Design details and structural stability.

All swimming pools shall be designed and constructed to withstand all anticipated loading for both full and empty conditions. A hydrostatic relief valve and/or a suitable underdrain system shall be provided. The designing architect or engineer shall be responsible for certifying the structural stability and safety of the pool in both full and empty conditions.

(1) *Shape.* The shape of any swimming pool shall be such that the circulation of pool water and control of swimmers' safety are not impaired. There shall be no underwater or overhead projections or obstructions which would endanger patron safety or interfere with proper pool operation.

(2) *Minimum depth.* The minimum depth of water in the pool shall be at least 2.5 feet but not more than 3.5 feet except for special purpose pools.

(3) *Bottom slope.* The bottom of the pool shall slope toward the main drain. The slope in water depths less than five feet shall not exceed one foot vertical in 12 feet horizontal.

(4) *Marking of boundary between shallow and deep areas.* The boundary line between the shallow and deep areas shall be marked by a line of contrasting color on the floor and walls of the pool, and by a safety rope and floats equipped with float keepers.

(5) *Pool walls.* Walls of a swimming pool shall be either:

a. Vertical for water depths of at least six feet; or

b. Vertical for a distance of at least three feet below the water level, below which the wall may be curved to the bottom with a radius not greater than the difference between the depth at that point and three feet; provided that vertical is interpreted to permit slopes not greater than one foot horizontally for each five feet of depth of sidewall (11 degrees from vertical).

(6) *Ledges.* Ledges shall not extend into the pool unless they are essential for support of the upper wall construction.

(7) *Diving areas.* The minimum dimensions of the swimming pool and appurtenances in the diving area shall conform to the table in section 46-134. (Note: These diving area dimensions do not meet the

requirements of NCAA or AAU.) Dimensions for diving pools shall be in accordance with the Standards of International Amateur Swimming and Diving Federation (FINA).

a. *Headroom.* There shall be a completely unobstructed clear distance of 16 feet above the diving board measured from the center of the front end of the board. This area shall extend at least eight feet behind, eight feet to each side, and 16 feet ahead of the measuring point.

b. *Diving boards and platforms.* Diving boards and platforms in excess of three meters in height are prohibited except where special design considerations and control of use are provided.

c. *Steps and guard rails for diving boards.* Supports, platforms and steps for diving boards shall be of substantial construction and of sufficient structural strength to safely carry the maximum anticipated loads. Steps shall be of corrosion-resistant material, easily cleanable and of nonslip design. Handrails shall be provided at all steps and ladders leading to diving boards more than one meter above the water. Platforms and diving boards which are one meter high or higher shall be protected with guard rails 36 inches high extending at least to the edge of the water. Boards or platforms three meters or higher shall have an effective side barrier.

(8) *Slides.* Slides for use in swimming pools shall conform to part 1207, Safety Standard for Swimming Pool Slides, of the U.S. Consumer Product Safety Act (15 USC 2051 et seq.).

(9) *Ladders, recessed steps and stairs.*

a. *Location.* Recessed steps, ladders or stairs shall be provided at the shallow and deep ends. Recessed steps or ladders shall be provided in the deep portion. If the pool is over 30 feet wide, such steps, ladders or stairs shall be installed on each side.

b. *Ladders.* Pool ladders shall be corrosion-resistant and shall be equipped with nonslip treads. All ladders shall be so designed as to provide a handhold. There shall be a clearance of not more than six inches or less than three inches between any ladder and pool wall.

c. *Recessed steps.* Recessed steps shall be readily cleanable and shall be arranged to drain into the pool. Recessed steps shall have a minimum tread of five inches and a minimum width of 14 inches.

d. *Handrails.* Where recessed steps or ladders are provided, there shall be a handrail at the top of each side thereof extending over the coping or edge of the deck.

e. *Stairs.* Where stairs are provided, they shall be located diagonally in a corner of the pool or be recessed. They shall be equipped with a handrail. Stairs shall be of nonslip design, and have a minimum tread of 12 inches and a maximum rise of ten inches.

(10) *Decks.* A deck shall entirely surround the pool. It shall be not less than five feet wide. The deck shall be of a uniform, easily cleaned, impervious material and be of slip-resistant construction. The deck shall be protected from surface runoff.

a. *Slope.* The deck shall be sloped at least one-fourth inch per foot to deck drains or grade.

b. *Drainage.* Deck drains, when used, shall be spaced and arranged so that not more than 400 square feet of area is tributary to each drain and drains shall not be spaced more than 25 feet apart. There shall be no direct connection between the pool deck drains and the sanitary sewer system, or the pool gutter or recirculation system.

c. *Roll-out gutters.* If the pool is equipped with roll-out deck level gutters, not more than five feet of deck shall be sloped toward the gutters.

d. *Carpeting.* Carpeting shall not be permitted on pool decks unless special design considerations are provided and approved by the health department.

e. *Hose bibs.* Hose bibs shall be provided to facilitate flushing of the deck areas.

f. *Spectator areas.* There shall be an effective separation between spectator areas and swimmer areas.

g. *Pool concessions.* There shall be complete separation between areas where food and drink are served and areas used by pool patrons.

(11) *Fencing.* The deck area must be completely surrounded by walls and/or fencing not less than four feet high and of a design that will control the movement of patrons and restrain the entrance of non-patrons. Any special purpose areas inside the perimeter walls and/or fence must be fenced or constructed to control traffic. These areas shall be designed so they will not drain onto the deck. Any entrance to the pool shall be provided with a self-closing and latching gate capable of being locked. The opening device for the latch on the gate or door shall be at least four feet high, to keep young, unattended children from gaining access to the pool.

Sec. 46-98. - Safety requirements.

(a) *Depth markings.*

(1) *Location of depth markings.* Depth of water shall be plainly marked at or above the water surface on the vertical pool wall and on the edge of the deck, at maximum and minimum points of break between the deep and shallow portions, and at intermediate increments of depth, spaced at not more than 25-foot intervals measured peripherally. Markings shall be on both sides and ends of the pool. Where depth markings cannot be placed on the vertical walls above the water level, other means shall be used so that the markings will be plainly visible to persons in the pool.

(2) *Size of depth markings.* Depth markings shall be in numerals of four inches minimum height and with color contrasting with the background.

(b) *Lifeguard chairs/stations.* Swimming pools, spas and recreational water facilities having an area of more than 3,400 square feet of water surface shall be provided with an elevated lifeguard chair or station. For each additional 2,000 square feet of water surface area, additional elevated chairs or stations shall be provided. Chairs should be placed in locations which will eliminate sun glare on the water, and in positions which will give complete coverage of the pool within a field of view limited to 45 degrees on either side of direct line of sight extending straight out from the chair.

(c) *Lifesaving equipment.*

(1) *Units required.* One unit of lifesaving equipment shall be provided for each 2,000 square feet of water surface area or major fraction thereof. A minimum of one unit shall be provided.

(2) *Unit composition.* One unit of lifesaving equipment shall consist of the following:

a. *Throwable devices.* A federal coast guard-approved ring, 18 inches in diameter, or throwing buoy fitted with a one-fourth-inch diameter line with a length of 1.5 times the maximum width of the pool or 50 feet, whichever is less.

b. *Reaching devices.* A life pole, or shepherd's crook type of pole, having blunted ends with minimum length of 12 feet and able to reach to the center of the bottom of the pool at the deep end.

c. *Location.* Lifesaving equipment shall be mounted in conspicuous places, distributed around the swimming pool deck. Whenever lifeguard chairs/stations are provided, each shall be equipped with one unit of lifesaving equipment.

(d) *First aid equipment.* Every swimming pool shall be equipped with a minimum of a Red Cross standard 16-unit first aid kit, or its equivalent. A spine board should be provided at each pool.

(e) *First aid room.* Swimming pools with a surface area in excess of 4,000 square feet should have a readily accessible room or area designated and equipped for emergency care.

(f) *Emergency exit.* An emergency exit from the pool area shall be provided.

(g) *Attendant alarm.* Any swimming pool, spa, or recreational water attraction which is located such that it is not at all times in direct view of the attendant shall have, in the immediate vicinity of the pool, a clearly labeled alarm device that can be activated when a bather is in trouble and is easily heard throughout the area or building. This alarm shall produce a distinctly different sound than that of the high temperature alarm and the facility shall have a non-pay telephone permanently installed at poolside which is readily accessible and conspicuously located. The telephone shall have signage stating call 911 in case of emergency or connect directly with an attendant. All drowning and injuries requiring hospitalization shall be immediately reported to the health department.

Sec. 46-99. - Ventilation and acoustical requirements.

(a) *Ventilation.* Bathhouses, mechanical equipment rooms, storage areas and indoor swimming pool enclosures shall be adequately ventilated. Room ventilation shall prevent direct drafts on swimmers and shall minimize condensation damage. A heating unit shall be kept from contact with swimmers. A fuel-burning heating unit shall be properly vented to the outdoors.

(b) *Acoustical control.* Acoustical control shall be provided for indoor pools.

Sec. 46-100. - Water supply and wastewater disposal.

(a) *Water supply.* The source and quality of the water supplied to the pool and all plumbing fixtures including drinking fountains, lavatories and showers shall at all times meet the standards of the health department for potable water.

(b) *Cross connection control.* All portions of the water distribution system serving the swimming pool and auxiliary facilities shall be protected against backflow and backsiphonage. Water introduced into the pool, either directly or to the recirculation system, shall be supplied through an air gap or by another method in accordance with chapter 90, article IV, division 3.

(c) *Sanitary wastes.* An approved method for disposing of sanitary sewage shall be provided. Where available, a municipal sanitary sewerage system shall be used. If a private subsurface disposal system or other system must be used, approval of the system must be obtained from the health department and utilities department.

(d) *Pool wastewater.* Pool wastewater shall be discharged in a manner approved by the health department and utilities department.

(e) *Backflow prevention.* The swimming pool and recirculation system shall be protected against backflow.

Sec. 46-101. - Recirculation system.

A recirculation system consisting of pumps, piping, filters, water conditioning and disinfection equipment, and other accessory equipment shall be provided which will clarify, chemically balance and disinfect the swimming pool. A minimum turnover of the entire volume in six hours (four times in 24 hours) is required, except that the recirculation rate shall be increased to provide a two-hour turnover for wading pools.

(1) *Capacity.* The sizing of pipes, fittings and valves of the pool recirculation system shall be based on flow velocities not exceeding six feet per second under suction, ten feet per second under pressure and three feet per second in gravity.

(2) *Pipe marking.* All exposed piping shall be marked. The name of the liquid or gas and arrows indicating direction of flow shall be marked on the pipe.

(3) *Overflow systems.* All pools shall be designed to provide continuous skimming (removal of surface water). Make-up water supply equipment shall be provided to maintain continuous skimming.

a. *Gutters (perimeter overflow systems).* The overflow shall extend completely around the pool. It shall be level within a tolerance of plus or minus one-eighth inch. Piping connections shall be provided to permit water to flow from overflows to waste, as well as to the recirculation system.

1. *Size and shape.* The gutter system shall be designed for continuous removal of water from the pool's upper surface at a rate of at least 125 percent of the recirculation rate. The gutter shall be designed to serve as a handgrip and to prevent entrapment of arms or legs. It shall permit ready inspection, cleaning and repair.

2. *Outlets.* Drop boxes, converters, return piping or flumes used to convey water from the gutter shall be designed to handle 125 percent of the recirculation rate. Drainage shall be sufficient to minimize flooding and prevent backflow of skimmed water into the pool.

3. *Surge capacity.* All overflow systems shall be designed with an effective surge capacity of not less than one gallon for each square foot of pool surface area. Surge shall be provided within a surge tank, in the gutter or filter above the normal flow line, or elsewhere in the system. Surge tanks, gutters and filter tanks should have overflow pipes to convey excess water to waste. Surge tanks shall be provided with means for complete draining.

b. *Skimmers.* The use of skimmers shall be limited to pools with widths of 30 feet or less.

1. *Number.* At least one surface skimmer shall be provided for each 500 square feet of surface or fraction thereof. Additional skimmers may be required to achieve effective skimming. At least two skimmers should be provided.

2. *Location.* Skimmers shall be so located as to provide effective skimming of the entire water surface with minimum interference and short-circuiting.

3. *Flow rate.* Skimmers shall be designed for a flow-through rate of at least 30 gallons per minute or 3.75 gallons per minute per lineal inch of weir. The combined capacity of all skimmers in a pool shall be less than the total recirculation rate.

4. *Control.* Skimmers shall have weirs that adjust automatically and operate freely and continuously with variations of at least four inches in water level. All skimmed water shall pass through an easily removable and cleanable basket or screen before encountering control valves or entering the pump suction line. Each skimmer shall be equipped with a device to control flow. If a skimmer is connected directly to the recirculation pump suction pipe, it should include a device to prevent an air lock in the suction line. If equalizer pipes are used, they shall pass an adequate amount of water to meet pump suction requirements should the water in the pool drop below the weir level. The equalizer pipes shall be located at least one foot below the lowest overflow level of the skimmer. A valve or equivalent device that will remain tightly closed under normal operating conditions, but automatically opens when the water level drops below the minimum operating level of the skimmer, shall be provided on each equalizer pipe.

5. *Construction.* Skimmers shall be installed in the pool walls, be sturdy and be constructed of corrosion-resistant materials. Surface skimmers shall be of a type acceptable to the health department.

6. *Handgrips.* Bullnosed coping not more than two inches thick or other handgrip adjacent to the pool wall shall be provided. The handgrip shall not be more than nine inches above the minimum skimmer operating level. When the handgrip is formed by the pool deck, it shall slope away from the pool with a one-inch drop in a one foot distance.

c. *Testing.* Flotation testing should be performed to determine and adjust the recirculation system for optimum skimming.

(4) *Main drain system (outlet).* Main drains of the pool shall be installed in the pool floor at the deepest point.

a. *Single main drain.* Must be equipped with an unblockable drain that meets the ASME/ANSI A112.19.8 standard or anti-entrapment covers certified to meet the ASME/ANSI A112.19.8 standard and one of the following:

1. Safety vacuum release system (SVRS);
2. Suction-limiting vent system;
3. Gravity drainage system;
4. Automatic pump shut-off system;
5. Drain disablement;
6. Other systems as determined by the consumer product safety commission to be equally as effective or better than described in subsection (4)a.1 through 5 of this section.

b. *Spacing.* If dual or multiple main drains, the drains shall not be greater than 20 feet on centers and an outlet shall be provided not more than 15 feet from each side wall and at least three feet apart.

c. *Gratings.* The main drains shall be protected by anti-entrapment covers that are certified to meet the ANSI/ASME A1 12.19.8 standard on every drain/grate. Gratings or drain covers shall not be removable without the use of tools.

d. *Piping.* The piping shall be designed to carry 100 percent of the recirculation rate and shall be equipped with a valve.

e. *Minimum flow.* At least 30 percent of the total recirculation rate should flow through the main drain.

(5) *Pumps and strainers.*

a. *Strainers.* Strainers shall be provided through which all water shall pass before entering the pump. The strainers shall be of rigid construction, fabricated of corrosion resistant material and sufficiently strong to prevent collapsing when clogged. The openings shall be no greater than one-eighth inch in any dimension. The total clear area of all openings shall be at least four times the area of the connecting pipe. The strainer shall have a quick opening cover. Spare strainer baskets shall be provided. In systems where the filter is located on the suction side of the pump, strainers are not required.

b. *Pumping equipment.* The recirculation pump shall have adequate capacity to meet the design requirements of the pool, including filter backwashing. It shall be of a self-priming type if installed above the hydraulic gradient. Multiple pumps should not be provided except for standby purposes. A gauge which indicates both pressure and vacuum shall be installed on the pump suction header and a pressure gauge shall be installed on the discharge side of the pump.

(6) *Flow measurement and control.*

a. *Flow measurement.* A means of continuously measuring rate of flow shall be provided in the recirculation system. For sand filters the flow measuring equipment shall be located where the backwash flow rate can also be determined. The rate of flow indicator shall be of a type approved by the health department. The indicator shall be capable of measuring at least 1.5 times the design flow rate, and shall be accurate within ten percent of true flow. The indicator shall have a range of readings appropriate for the anticipated flow rates, and be installed where it is readily accessible for reading and maintenance and with straight pipe upstream and downstream of any fitting or restriction in accordance with the manufacturer's recommendation.

b. *Flow regulation.* A device for regulating the rate of flow shall be provided in the recirculation pump discharge piping.

(7) *Inlets.* The recirculation system shall have inlets adequate in design, number and location to insure effective distribution of treated water and maintenance of uniform disinfectant residual throughout the swimming pool. All other types of inlet systems not covered in this subsection shall be subject to approval by the health department.

a. *Number.* Wall inlets shall be spaced not over 20 feet apart, with one inlet within five feet of each corner of the pool and one in each recessed step area.

b. *Location.* Wall inlets shall be located at least 12 inches below the design water surface. Bottom inlets shall be uniformly spaced with a separating distance of no greater than 20 feet and with rows of inlets within 15 feet of each side wall. In any pool over 60 feet in width, bottom inlets should be provided.

c. *Type.* Inlet fittings shall be of the adjustable rate of flow type. Directional flow inlets shall be used with skimmer type pools. Inlets shall not extend from the floor or wall to create a hazard.

d. *Testing.* Dye testing (crystal violet or equivalent) should be performed to determine and adjust the recirculation pattern.

Sec. 46-102. - Filtration.

A swimming pool water treatment system shall have one or more filters. A filter shall be of a type approved by the health department. It shall be installed with adequate clearance and facilities for ready and safe inspection, maintenance, disassembly and repair.

(1) *Sand type filters.*

a. *Filter rate.* The design filtration rate of rapid sand filters shall not exceed three gallons per minute per square foot of filter area. High-rate sand filters shall not exceed a filtration rate of 15 gallons per minute per square foot. The sand filter system shall be equipped to backwash each filter at a rate of 15 gallons per minute per square foot of filter bed area or as recommended by the manufacturer. The backwash water shall be discharged to waste through a suitable air gap.

b. *Filter media.* Sand or other media shall be carefully graded and meet the manufacturer's recommendation for pool use.

c. *Accessories.* Accessories shall include influent pressure gauge, effluent pressure gauge, backwash sight glass and air relief valve.

(2) *Diatomaceous earth.* The design filtration rate for pressure or vacuum filters shall be not greater than 1.5 gallons per minute per square foot of effective filter area, except that a maximum filtration rate of 2.0 gallons per minute per square foot may be allowed where continuous body feed is provided.

a. *Precoating.* The filter piping shall be designed to refilter or waste the effluent until a uniform body coat is applied. For pressure type filters, precoat feed equipment shall be provided to apply not less than 0.1 pound of diatomaceous earth per square foot of filter area.

b. *Body feed equipment.* Body feed equipment capable of applying not less than 0.1 pound of diatomaceous earth per square foot of filter area per 24 hours should be provided.

c. *Regenerative type filters.* Regenerative type filters shall meet the same standards as other pressure filters. Bumping by air or manual means must be provided for and provision for inspection of elements shall be provided.

d. *Accessories.* Accessories for vacuum filters shall include a vacuum gauge and a vacuum limit switch interconnected with the pump. Pressure filters require a backwash sight glass, effluent pressure gauge, influent pressure gauge and air relief valve.

(3) *Other type filters.* Acceptance shall be determined on an individual basis by the health department.

Sec. 46-103. - Disinfection.

Swimming pools shall be designed to provide for continuous disinfection of the pool water with a chemical which is an effective disinfectant and which imparts an easily measured, active residual.

(1) *Disinfectant feeders.* An automatic feeder which is easily adjustable shall be provided for the continuous application of disinfectant.

a. *Construction.* Feeders shall be of sturdy construction and materials which will withstand wear, corrosion or attack by disinfectant solutions or vapors, and which are not adversely affected by repeated, regular adjustments or other normal use conditions.

b. *Maintenance.* Feeders shall be capable of being easily disassembled for cleaning and maintenance.

c. *Operation.* The design and construction shall be such as to minimize stoppage from chemicals intended to be used or foreign materials that may be contained therein.

d. *Safeguards.* The feeders shall incorporate antisiphon safeguards so that the disinfectant cannot continue to feed into the swimming pool, the pool piping system, or the swimming pool enclosure if any type of failure of the pool equipment occurs.

e. *Capacity.* Feeders shall be capable of supplying disinfectant to the pool in the range up to ten ppm chlorine or equivalent.

(2) *Gas chlorination.* When compressed chlorine gas is used, the following features shall be provided:

a. *Location.* The chlorinator room shall be located on the opposite side of the pool from the direction of the prevailing winds.

b. *Chlorine room.* This room shall be at or above grade. Chlorinating equipment shall be in a separate room.

c. *Venting.* The chlorine room shall have an airtight duct beginning near the floor and terminating at a safe point of discharge to the out-of-doors. A louvered air intake shall be provided near the ceiling. A ventilating fan, capable of one air change per minute and operated from a switch outside the door, shall be provided in conjunction with the airtight duct.

d. *Lighting.* Adequate lighting shall be provided with the switch located outside the room, adjacent to the door.

e. *Door.* The door of the chlorinator room shall not open to the swimming pool, and shall open outward to the out-of-doors. The door shall be provided with a shatterproof inspection window and should be provided with panic hardware.

f. *Chlorine cylinders.* Chlorine cylinders shall be anchored. The cylinders in use shall stand on a scale capable of indicating gross weight with one-half pound accuracy. Storage space shall be provided so that chlorine cylinders are not subjected to direct sunlight.

g. *Injection location.* The mixing of the chlorine gas and water shall occur in the chlorine room, except where vacuum type chlorinators are used.

h. *Backflow.* The chlorinators shall be designed to prevent the backflow of water or moisture into the chlorine gas cylinder.

i. *Breathing apparatus.* A self-contained breathing apparatus designed for use in a chlorine atmosphere, and of a type approved by the health department, shall be provided. A closed cabinet shall be provided to house the breathing apparatus. It shall be accessible without a key and be located outside of the chlorinator room.

j. *Leak detection.* A plastic bottle of ammonia for leak detection shall be provided.

k. *pH adjustment.* Mechanical feed equipment for the purpose of adding a chemical for pH adjustment shall be provided.

(3) *Hypochlorinators.* Where hypochlorinators are used, the following requirements shall apply:

a. *Feed.* Feed shall be continuous under all conditions of pressure in the recirculation system without constriction of the recirculation pump suction.

b. *Solution tanks.* If calcium hypochlorite is used, two solution tanks, each with minimum capacity of one-day supply, should be provided.

(4) *Chemical feed equipment.* Equipment and piping used to apply chemicals to the water shall be of such size, design and material that they may be cleaned. All material used for such equipment and piping shall be resistant to action of chemicals to be used therein.

(5) *Test kit.*

a. *Standards.* Every pool shall be equipped with a DPD (Diethyl-P-Phenylene Diamine) test kit to measure free and combined chlorine or bromine concentrations, total chlorine, pH, alkalinity, and cyanuric acid, if used. The DPD test kit shall be capable of measuring the minimum and maximum allowable ranges for chemical operation parameters. Reagents within the DPD test kit shall be date marked with the date of purchase and held according to the manufacturer's guidelines. The use of orthotolidine (OTO) test kits and test strips is prohibited.

Sec. 46-104. - Bathhouse.

(a) *Exceptions.* Omission of part or all of the poolside shower and toilet facilities may be approved by the county health department when adequate facilities are conveniently available.

(b) *Design criteria.*

(1) *Bathhouse routing.* Unless approved as in subsection (a) of this section, location of the bathhouse shall be such that the patrons must pass through the bathhouse to enter the pool. The layout of the bathhouse shall be such that the patrons on leaving the dressing room pass the toilets, then the showers, en route to the swimming pool.

(2) *Bathhouse design.* The floor of the bathhouse shall be of smooth-finished material with nonslip surfaces, impervious to moisture, easily cleanable and sloped at least one-fourth inch per foot to drains. Carpeting shall not be permitted in shower and toilet areas. Junctions between walls and floors shall be coved. Walls and partitions shall be of smooth, impervious materials, free from cracks or open joints. Partitions between dressing cubicles shall terminate at least ten inches above the floor or shall be placed on continuous raised masonry or concrete bases at least four inches high. Lockers shall be set either on solid masonry or concrete bases at least four inches high or on legs with the bottom of the locker at least ten inches above the floor. Lockers shall be properly vented.

(3) *Fixture requirements.*

a. *Generally.* Unless exempted by subsection (a) of this section, bathhouse facilities shall be provided based on maximum patron load according to the table set out in section 46-135.

b. *Showers.* Showers shall be supplied with water at a temperature of at least 90 degrees Fahrenheit and no more than 115 degrees Fahrenheit and at a rate of at least 1.5 gallons per minute per shower head. All plumbing shall conform to national and local plumbing codes. Liquid or powdered soap dispensers should be provided. Glass dispensers are not acceptable.

(4) *Suits and towels.* Where towels and/or swimming suits are provided, facilities shall be provided to adequately launder, store and sanitize these items after each usage.

(5) *Footbaths.* The use of footbaths is prohibited.

(6) *Hose bibs.* Hose bibs shall be provided within the bathhouse to enable the entire area to be flushed with a 50-foot hose. All hose bibs shall be provided with approved backsiphonage devices to protect the water distribution system for the pool and appurtenant facilities at all times against cross connection.

(7) *Ventilation.* Bathhouse facilities shall be provided with mechanical ventilation in accordance with current codes.

(8) *Electrical receptacles.* All bathhouse electrical outlets shall be protected by ground fault circuit interrupters.

Sec. 46-105. - Miscellaneous requirements.

(a) *Pool cleaning system.* A cleaning system shall be provided to remove dirt from the bottom of the pool. When a vacuum system is used as an integral part of the recirculation system, the connection shall be located in the walls of the swimming pool at least eight inches below the water line, and at such points that the floor of the pool can be cleaned with not more than 50 feet of suction hose. Nothing in this section shall prohibit the use of surface skimmers for vacuum cleaning purposes.

(b) *Manual.* A manual for operation of the pool shall be provided. It shall include instructions for each filter, pump or other piece of equipment, drawings, illustrations, chart operating instructions, and a parts list to permit proper installation, operation, winterization and maintenance.

(c) *Starting blocks.* Starting blocks shall be located where the water depth is at least five feet. They shall be of a removable design.

(d) *Sand area rinse showers.* Sand areas shall not be allowed inside of the pool enclosure unless separated by an effective barrier to control access to the swimming pool deck and provided with continuous supervision to enforce the showering requirement. Persons entering the swimming pool area from the sand area shall pass through a water spray or shower which effectively removes sand from the bathers.

(e) *Spray and water features.* Waterfalls, fountains, mushrooms, spray pads and spray pools, or similar features shall be permitted only in water depths not exceeding two feet. Such features shall be of a nonclimbable design, unless specifically manufactured and marketed as a climbing structure. Each feature where bathing takes place shall have a separate sanitizing feeder installed. The feeder shall be of appropriate design with one chlorinator per activity flow pipe, and be capable of supplying sufficient sanitizing to meet the minimum residual required by these regulations. Turnover shall be no greater than every 15 minutes. If the features are part of a larger system that uses surge tanks with chemical controllers, and there are separate feed lines to each feature, then separate chlorinators are not required as long as the chlorine residual is maintained at each feature.

Sec. 46-106. - Spas.

(a) *General standards.* Requirements for conventional swimming pools may be modified or waived for spas at the discretion of the health official. Except as modified by this article, compliance is required with all other applicable sections and standards of this Code.

(b) *Patron load.* The patron load shall not exceed one person per three lineal feet of inner edge of seat or bench.

(c) *Maximum depths.* The maximum water depth shall be four feet measured from the water line. The maximum depth of any seat or sitting bench shall be two feet measured from the water line.

(d) *Handholds.* A spa shall have one or more suitable, slip-resistant handholds around the perimeter, located no farther apart than four feet. The handholds may consist of any one or a combination of bullnosed coping, ledges or decks along the immediate top edge of the spa and not over 12 feet above the water line; ladders, steps, or seat ledges; and ropes or railings not over 12 inches above the water line.

(e) *Stairs, ladders and recessed treads.* Stairs, ladders, or recessed treads shall be provided where spa depths are greater than two feet. A spa shall be equipped with at least one means of egress with handrail for each 50 feet of perimeter or portion thereof.

(f) *Deck width.* A five-foot minimum width continuous unobstructed deck, which may include the coping, shall be provided on two sides or 50 percent or more of the spa. When the spa is adjacent to another pool, the spa shall be located at the shallow end, with a minimum distance of five feet between the pools.

(g) *Water temperature controls.* Controls shall be provided to prevent water temperatures in excess of 104 degrees Fahrenheit. The controls shall be accessible only to the pool operator. Each spa shall have an approved spa thermometer on site.

(h) *Electrical equipment.* Electrical switches, outlets, and equipment shall be at least 15 feet from the edge of the spa.

(i) *Spa drainage.* A means to drain the spa shall be provided to allow frequent draining and cleaning.

(j) *Entrapment protection.* Outlets shall be designed so that each pumping system prevents patron entrapment. Acceptable means include the use of unblockable drains that meet the ASME/ANSI A112.19.8 or a certified ASME/ANSI A112.19.8 drain cover on every drain/grate, and one of the following:

(1) Safety vacuum release system (SVRS);

(2) Suction-limiting vent system;

(3) Gravity drainage system;

(4) Automatic pump shut-off system;

(5) Drain disablement;

(6) Other systems as determined by the consumer product safety commission to be equally as effective or better than described in subsection (k)(1) through (5) of this section, if a single main drain.

(k) *Surface skimmers.* One surface skimmer shall be provided for each 100 square feet or major fraction thereof of surface area.

(l) *Inlets.* One wall inlet shall be provided for each 20 feet of pool perimeter, and a minimum of two wall inlets shall be provided.

(m) *Air induction systems.* An air induction system, when provided, shall prevent water backup that could cause electrical shock hazards. Air intake sources shall not permit the introduction of toxic fumes or other contaminants.

(n) *Disinfectant feeders.*

(1) *Capacity.* Feeders shall be capable of supplying at least 20 ppm chlorine or equivalent.

(2) *Gas chlorinators.* Gas chlorinators shall not be used.

(o) *Recirculation flow rates.* The recirculation flow rate shall be 30 gallons per minute per skimmer or provide a 30-minute turnover, whichever is greater.

(p) *Agitation systems.* The agitation system shall be separate from the water treatment recirculation system. The agitation system shall be connected to a ten-minute timer located out of reach of a person in the spa.

(q) *Caution signs.* A legible sign visible from the spa shall be provided. It shall state: "Caution. Any person having an acute or chronic disease such that use of the spa might adversely affect their health should consult a physician before using this spa. Do not use the spa immediately following exercise or while under the influence of alcohol. Do not use the spa alone or without supervision. Do not use the spa longer than ten minutes. Children shall be accompanied by an adult."

Sec. 46-107. - Water slides.

(a) *General standards.* Water slides require special consultation with the regulatory agency for consideration of design variations and areas where potential problems may exist. Requirements for conventional swimming pools may be modified or waived for water slides at the discretion of the health department. Except as modified by this article, compliance is required with all other applicable sections and standards of this Code.

(b) *Flumes.*

(1) *Position.* A flume shall be perpendicular to the plunge pool wall for a distance of at least ten feet from the exit end of the flume.

(2) *Clearances.* The distance between the side of a flume terminus and a plunge pool side wall shall be at least four feet. The distance between sides of adjacent flume terminuses shall be at least six feet. The distance between a flume exit end and the opposite side of the plunge pool, excluding steps, shall be at least 20 feet.

(3) *Elevation.* A flume shall terminate either at a depth of at least six inches below the plunge pool operating water surface level or at, or no more than two inches above, the water surface level provided the flume is level for a distance of at least ten feet from its exit end.

(c) *Plunge pools.*

(1) *Depths.* The plunge pool operating water depth at the end of a flume shall be three feet. This depth shall be maintained in front of the flume for a distance of at least ten feet, from which the plunge pool floor may have a constant slope upward to a minimum water depth of two feet.

(2) *Decks.*

a. *Width.* The deck along the exit side of the plunge pool shall be at least ten feet wide. The deck along the side opposite the pump reservoir shall be at least four feet wide.

b. *Slope.* Plunge pool decks may slope to the plunge pool and/or the pump reservoir or to drains which discharge to them.

(d) *Pump reservoirs.*

(1) *Volume.* The pump reservoir shall have sufficient volume to contain two minutes of combined flow from all water treatment and flume pumps.

(2) *Accessibility.* All of the reservoir area shall be accessible by three-foot minimum width decks for cleaning and maintenance.

(3) *Security.* The pump reservoir shall be secured to prevent unauthorized access.

(4) *Flume pumps.*

a. *Intakes.* The flume pump intakes shall be in the pump reservoir. The intakes shall enable cleaning and shall prevent patron entrapment.

b. *Checkvalves.* Each flume pump discharge pipe shall have a checkvalve.

(e) *Walkways.* A four-foot minimum width surfaced walkway or steps shall be provided between the plunge pool deck and the top of the flume.

(f) *Water treatment.*

(1) *Main drains.* The plunge pool and the pump reservoir shall each have a main drain with piping to the water treatment system with unblockable drains or anti-entrapment covers that are certified to meet the ASME/ANSI A112.19.8 standard and one of the following:

a. Safety vacuum release system (SVRS);

b. Suction-limiting vent system;

c. Gravity drainage system;

d. Automatic pump shut-off system;

e. Drain disablement;

f. Other systems as determined by the consumer product safety commission to be equally as effective or better than described in a. through e., if a single main drain.

(2) *Overflow systems.* The plunge pool and the pump reservoir shall each have either a surface skimmer system or a perimeter overflow system, with piping to the water treatment system.

a. *Surface skimmers.* Each surface skimmer system shall have at least two surface skimmers.

b. *Perimeter overflow systems.* Perimeter overflows are not required directly under flumes or along weirs which separate the plunge pool and the pump reservoir.

(3) *Turnover.* The water shall be recirculated and treated in a turnover of one hour or less.

(g) *Caution signs.* A legible sign shall be posted at the top of the flume. The sign shall state: "Do not use this slide while under the influence of alcohol or drugs. Only one person allowed at a time. Follow the instructions of the supervisor and lifeguard. No running, standing, kneeling, rotating, tumbling or stopping in the flumes or tunnels. Keep your hands inside the flume. No diving from a flume. Leave the plunge pool promptly after entering it."

Sec. 46-109. - Wave pools.

(a) *Consultation with health department; applicability of requirements for conventional pools.* The design architect or engineer shall consult with the health department prior to preparation and submission of engineering plans and specifications for wave pools. Requirements for conventional swimming pools may be modified or waived for wave pools at the discretion of the health department. Except as modified by this section, compliance is required with all other applicable sections of these standards.

(b) *Shape and design generally.* Wave pools shall be of such shape and design as to be operated and maintained in a safe and sanitary manner.

(c) *Depth.* The water depth may be reduced to zero at the shallow end to allow for safe access and for dissipation of the waves.

(d) *Gutters.* Overflow gutters shall be provided, but may be omitted along the side of the pool with the wave generating equipment if effective skimming devices are provided instead. Continuous skimming shall be provided during the quiescent period over the entire length of the gutter. The zero-depth end shall have a continuous trench with a grate.

(e) *Recirculation-filtration system.* The recirculation-filtration system of wave pools shall be capable of providing a two-hour turnover.

(f) *Decks and ladders.*

(1) *Barriers.* A safety railing or other effective barrier at least 42 inches in height shall be provided to prevent swimmers from entering the pool at any location other than the zero-water-depth end. It shall have at least one intermediate-height rail or rope.

(2) *Runout.* Runout areas sloping down toward the zero-depth trench should not exceed four feet.

(3) *Access.* Deck areas accessible to swimmers may be omitted along the side of the pool with the wave generating equipment.

(4) *Ladders.* Ladders shall be of a recessed design.

(g) *Waves.*

(1) *Magnitude.* The wave generating equipment shall not be capable of producing waves of a magnitude which could cause swimmers to have contact with the pool bottom in the deep end.

(2) *Emergency shutoff.* An emergency shutoff for the wave generating equipment shall be provided at every lifeguard chair or station at a minimum. At least four emergency shutoffs shall be provided.

(h) *Openings.*

(1) *Inlets.* The zero-depth area shall have bottom inlets. They shall be located as required by the health department.

(2) *Openings to wave generating equipment.* Openings to wave generating equipment shall be designed to prevent entrapment of swimmers.

Sec. 46-109. - Zero-depth pools.

(a) *Generally.* This section applies to zero-depth pools other than wading pools. Except as modified by this section, zero-depth pool facilities must comply with all other applicable provisions of these standards.

(b) *Lifeguarding requirement.* Zero-depth pools are permitted only where continuous lifeguard service is provided.

(c) *Surface skimming.* A gutter or trench with a grate cover is required along all zero-depth areas. It shall be at an elevation which allows effective skimming at the trench at all times.

(d) *Runout.* Runout areas sloping toward the zero-depth trench should not exceed four feet.

(e) *Recirculation rate.* The recirculation rate shall provide a turnover of two hours or less for areas of less than three feet of water depth, and a turnover for other areas as specified elsewhere in these standards.

(f) *Bottom inlets.* A system of bottom inlets must be provided in the shallow end, designed to provide the equivalent of a two-hour turnover for that area.

Secs. 46-110—46-126. - Reserved.

DIVISION 2. - OPERATIONAL STANDARDS

Sec. 46-127. - Water quality standards.

(a) *Disinfection.* Swimming pool water shall be continuously disinfected. The disinfecting materials and methods shall not be dangerous to public health, create objectionable physiological effects, or impart toxic properties to the water. All disinfecting materials and methods shall be used only with the approval of the health department.

(1) *Chlorine.* When chlorine is the disinfectant, a free chlorine residual of at least 1.0 mg/l shall be maintained throughout the pool. The free chlorine residual shall not exceed 10 mg/l.

(2) *Bromine.* When bromine is the disinfectant, a residual of at least 3.0 mg/l shall be maintained throughout the pool. The residual shall not exceed 10 mg/l.

(3) *Other disinfectants.* Another disinfecting material or method may be used when it has been demonstrated to provide a satisfactory residual which is easily measured and is as effective under conditions of use as the chlorine concentrations required in this section.

(b) *pH and alkalinity.*

(1) *pH.* The swimming pool water pH shall be maintained at a level between 7.2 and 8.2.

(2) *Alkalinity.* The alkalinity of the water should be maintained at a level between 60 and 180 mg/l as calcium carbonate.

(c) *Clarity.* The water shall have sufficient clarity that a black and white disc, six inches in diameter, is readily visible when placed at the deepest point of the swimming pool and viewed from the side of the swimming pool. A black two-inch circle around the drain cover or a highly contrasting drain cover suffices.

(d) *Algae control.* An algaecide may be used provided it is acceptable to the health department and is used in accordance with the directions on the label.

(e) *Superchlorination.* If the concentration of combined residual chlorine is greater than 0.2 mg/l, the swimming pool water should be superchlorinated to reduce the concentration of combined residual chlorine to less than 0.2 mg/l. Swimmers shall not be allowed in the swimming pool during superchlorination. Swimmers may be allowed in the pool when the free chlorine residual is between 1 mg/l and 10 mg/l.

(f) *Temperature.* The pool water temperature should be maintained between 72 degrees Fahrenheit and 85 degrees Fahrenheit.

Sec. 46-128. - Routine operations.

(a) *Pool cleaning.* The swimming pool and deck areas shall be cleaned, the pool water surface skimmed, and the pool walls and bottom vacuumed or brushed, all on a daily basis and while the pool is closed from use.

(b) *Bather preparation facilities.* The bather preparation facilities, including the floors, showers, and toilet facilities, shall be cleaned and disinfected daily and while the pool is closed from use. Public lockers shall be inspected and be cleaned as necessary. All facilities shall be maintained in an operable condition.

(c) *Water analyses.* Water quality analyses shall be performed at a frequency and at such locations as established by the health department. Test kits shall be properly maintained. Reagents shall be renewed semi-annually for indoor pools and prior to opening for outdoor pools.

(d) *Mechanical system.* All items of mechanical equipment and all parts of the mechanical system shall be inspected daily.

(e) *Recirculation system.* The recirculation system shall be inspected daily.

(1) *Overflow system.* Surface skimmers and perimeter overflow systems shall be cleaned daily and shall be adjusted as necessary.

(2) *Main drains.* Broken main drain grates shall be repaired or replaced immediately.

(3) *Inlets.* Inlet flow rates and direction shall be checked and shall be adjusted as necessary.

(4) *Surge tanks.* Surge tank controls shall be adjusted as necessary for operation in the design range of water levels. Surge tanks shall be drained and cleaned at least annually.

(5) *Water level.* Water shall be added as needed to keep the pool water at the overflow level.

(f) *Other equipment.* All safety equipment, deck equipment, and signs shall be checked daily and shall be properly maintained.

(g) *Records.* Daily operating records shall be maintained by the owner or operator on forms furnished by the health department. The records should contain such information as disinfectant residual, pH, water temperature, amount of chemicals used, flow rate, filter backwashing, equipment breakdowns, amount of makeup water, number of patrons, breathing apparatus usage, and personal accidents. Unusual problems or occurrences should be reported immediately to the health department. Changes made to meet the ASME/ANSI A112.19.8 standards shall be documented with information sheets of anti-entrapment drain covers and systems installed with drawings of any recirculation changes. These documents shall be available on-site and provided to the health department.

(h) *Chemicals.* All chemicals shall be handled and stored properly in accordance with the manufacturer's recommendations.

Sec. 46-129. - Equipment maintenance.

(a) *Equipment operation.*

(1) *Instructions.* All equipment shall be operated and maintained in accordance with the manufacturer's instructions. A manual of operation provided by the consultant and manufacturer's instructions for operation and maintenance of the equipment shall be maintained and kept available. When such instructions are not available, the health department should be contacted for advice and consultation.

(2) *Continuous operation required.* Pumps, filters, disinfectant feeders, flow indicators, gauges, and all related components of the pool water recirculation system shall be kept in continuous operation, 24 hours per day.

(b) *Recirculation pumps.* The pump and motor shall be checked at regular intervals. The pump shall not be throttled on the suction side during normal operation.

(c) *Filters.*

(1) *Sand filters.*

a. *Air release.* The filter air release valve shall be opened daily, or more frequently if necessary, to remove air which collects in the filter.

b. *Backwashing.* Filters shall be backwashed at a proper flow rate in accordance with the manufacturer's recommendations. The loss of head at the time of backwashing gravity filters shall not exceed eight feet. The pressure differential at the time of backwashing standard rate sand filters should not exceed five pounds per square inch and shall not exceed seven pounds per square inch.

c. *Internal components.* Inspection of the internal components of pressure filters shall be conducted annually or at any time the filters fail to produce clear effluent. Deficiencies shall be corrected.

(2) *Diatomaceous earth filters.*

a. *Precoat amount.* The amount of diatomaceous earth precoat shall be at least 0.1 pound per square foot of element surface area.

b. *Precoat operation.* During precoating, the filter effluent shall be recirculated through the filter until the effluent is clear, or the initial filter effluent shall be discharged to waste until clear water is produced.

c. *Body feed.* When continuous body feed is issued, it should be applied at a rate of 0.5 to 1.5 ounces per square foot of surface area per day or as needed to extend filter cycles.

d. *Backwashing.* Pressure filters shall be backwashed when the pressure differential between the filter influent and effluent lines reaches the manufacturer's recommended maximum pressure differential, or when the rate of flow drops below the design flow rate, whichever occurs earlier. When the recirculation pump stops or is shut off, the filter shall be backwashed. The elements shall be precoated before placing the pump back into operation. Vacuum filters shall be washed when the pump suction gauge reaches the manufacturer's recommended maximum vacuum, or the flow rate drops below the design flow rate, whichever occurs first.

e. *Internal components.* A pressure filter shall be opened for inspection at least once a year, and whenever it fails to produce a clear effluent. Deficiencies shall be corrected.

f. *Extra supplies.* An extra supply of septa and at least two weeks' supply of diatomaceous earth should be available.

(d) *Strainers.* Strainer baskets shall be removed and replaced by clean baskets frequently. The pump shall be stopped before a strainer is opened. In the case of a diatomaceous earth filter, the dirty strainer basket should be replaced with a clean one when the filter is backwashed.

(e) *Valves.* Valves shall be operated through their entire operation range occasionally to prevent corrosion and dirt from sealing them. Valve stem packing glands shall be tightened or repacked as necessary to prevent leakage.

(f) *Flow meters.* Flow meters shall be maintained in an accurate operating condition. The glass and the connecting tubes shall be kept clean.

(g) *Gauges.* The lines leading to gauges shall be bled occasionally to prevent blockage.

(h) *Positive displacement feeders.*

(1) *Inspection.* Positive displacement feeders shall be periodically inspected and serviced.

(2) *Intake.* The suction intake should be suspended at least six inches above any sludge layer in the solution tank.

(3) *Cleaning.* A small amount of mild acid solution (as vinegar) should be fed through the feeder each week to dissolve sludge accumulations.

(i) *Erosion feeders.*

(1) *Inspection.* Erosion feeders shall be periodically inspected and serviced.

(2) *Chemicals.* Only chemicals recommended by the feeder manufacturer shall be used in the feeder.

(j) *Gas chlorinators.* Gas chlorinators shall be serviced or repaired only by qualified personnel.

(k) *Pool structure and decks.*

(1) *Cracks.* Cracks in the pool walls, floors, perimeter overflow systems and decks shall be repaired as soon as possible and prior to the pool cleaning.

(2) *Painting.* The pool walls, floor, and deck equipment shall be painted as often as necessary to keep them in good condition and free of corrosion. Paint for the pool structure shall be white or a light color. Steps which lead into a pool should be painted to contrast with the rest of the pool.

(3) *Electrical systems.*

(4) *Repairs to be made by qualified electrician.* Repairs to any electrical system shall be made only by a qualified electrician.

(5) *Lights.* Defective underwater and overhead lights, including their lenses, shall be immediately repaired or replaced.

(6) Code *requirements.* All repairs shall be made in strict compliance with the National Electrical Code and all applicable state and local codes.

Sec. 46-130. - Patrons, spectators and staff.

(a) *Patrons.*

(1) *Disease.* A person having an infectious or communicable disease shall not be permitted in a swimming pool.

(2) *Showers.* A person using a swimming pool shall shower before entering the pool enclosure. A person leaving the pool to use a toilet shall shower before returning to the pool.

(3) *Apparel.* Only clean apparel shall be worn in a swimming pool.

(b) *Patron load limit.* The number of patrons within the swimming pool enclosure shall not exceed the approved design capacity.

(c) *Spectators.*

(1) *Street clothes.* A person in street clothes or shoes shall not be permitted on the swimming pool deck.

(2) *Food and drink.* No food, drink, gum, tobacco, or glass shall be permitted at the pool deck or in the pool/spa.

(d) *Staff.*

(1) *Supervisor.* Every pool shall be under the supervision of a responsible supervisor or lifeguard. This person shall require careful observance of sanitary and safety regulations.

(2) *Lifeguards.*

a. *Number.* All required lifeguard chairs/stations shall be occupied by lifeguards. Additional lifeguards shall be provided, the number to be determined by the health department, based on anticipated usage and design characteristics A proposed lifeguard staffing plan for a swimming pool, spa, or water recreation attraction shall be submitted, in writing, to the health department for approval.

b. *Additional lifeguards.* At least one lifeguard shall be provided for swimming pools, spas, and recreational water attractions equal to or greater than 3,400 square feet of pool surface area. One additional lifeguard shall be provided for each additional 2,000 square feet of pool surface area thereafter. For pools with depths of five-foot or less, every other lifeguard requirement (additional 2,000 square feet) may be substituted with a trained attendant. Pool operators may limit the portions of the pool open to bathers and provide the required lifeguard staff consistent with the pool area open.

c. *Certification.* Each lifeguard shall have a valid and current advanced lifeguard certificate from the American National Red Cross, National YMCA or equivalent.

d. *Dress.* Each lifeguard on duty shall be appropriately dressed and identifiable.

e. *Attention.* A lifeguard on duty shall not engage in activities which would distract his attention from the lifeguard duties.

f. *First aid.* A person trained in first aid shall be available on the premises whenever the swimming pool is open for use. A person trained in cardiopulmonary resuscitation (CPR) also should be available.

g. *Operator.* A person knowledgeable in poolside testing of the water and in operating the water treatment equipment shall be available whenever the pool is open for use.

(3) *Attendants.* A qualified attendant is required at regulated facilities with 2,000—3,400 square feet of surface area, regardless of pool depth. The pool shall have the attendant on duty at all times when the pool is open. If an attendant who is working alone must leave poolside, for whatever reason, he shall take whatever steps are necessary to ensure that no one remains in or enters the water in his absence. Copies of training/certification documentation for all attendants currently employed by the pool's management shall be present at the pool when it is open.

a. *Qualifications.* No person shall serve as an attendant unless he meets all of the following training requirements and can produce the appropriate documentation upon request of the health department.

b. *CPR.* Current certification in American Red Cross, American Heart Association or NSC Cardiopulmonary Resuscitation (CPR), or approved equivalent that includes training in: one person adult CPR, child CPR and infant CPR.

c. *Airway.* Current certification in American Red Cross First Aid, or approved equivalent, that includes training in: obstructed airway, artificial breathing, control of bleeding, and treatment of shock.

(4) *Table of required lifeguard and attendants.*

	2,000 sq. ft.	2,000—3,400 sq. ft.	3,400 sq. ft.	5,400 sq. ft. Depth 5 feet or less	5,400 sq. ft.
Lifeguard	No	No	1	2 or 1 [1]	2
Attendant	No	1 or Poseidon	No	1	No
[2] Alarm or telephone	Yes (one year)	No	No	No	No
No lifeguard signage	Yes	Yes	No	No	No
First aid kit	Yes	Yes	Yes	Yes	Yes

[1] For pools five feet or less, every other lifeguard requirement (additional 2,000 square feet) may be substituted with a trained attendant.

[2] Pools, spas, or recreational water attractions that are not at all times in direct view of an attendant.

Sec. 46-131. - Closure.

Any of the following conditions shall constitute sufficient grounds to order an immediate closure of the swimming pool, spa or water facility:

(1) Failure to comply with the disinfectant residual levels established in section 46-127(a)(1) through (5).

(2) Failure to comply with the water clarity requirement in 46-127(c).

(3) Inoperable pump, filter, or disinfectant feeder.

(4) Presence of bare electrical wires or other obvious electrical deficiency.

(5) Absence of supervisor or required lifeguard.

(6) Existence of any condition creating an immediate danger to health or safety as determined by the health department.

(7) Absence of certified ASME/ANSI A112.19.8 anti-entrapment system and documentation of how standard is met.

Sec. 46-132. - Safety.

(a) *Accident prevention.*

(1) *Decks.* Decks shall be kept slip-resistant and in good repair, without litter, obstructions, tripping hazards, and sharp edges.

(2) *Deck equipment.* Ladders, handrails, diving apparatus, lifeguard chairs, slides, and other deck equipment shall be kept secured and in good repair, without sharp edges.

(3) *Depth markings.* Depth markings shall be maintained to be plainly visible.

(4) *Entrances.* Doors and gates at pool entrances shall be kept closed at all times and locked when the pool is not open for use.

(5) *Glass objects.* Glass objects shall not be permitted in a swimming pool enclosure.

(6) *Horseplay.* Horseplay and running shall not be permitted.

(b) *Safety equipment.*

(1) *Lifesaving equipment.* The lifesaving equipment shall be kept in good repair and ready condition and in a conspicuous location. It shall be kept in its established location and shall be used only for the intended purpose.

(2) *First aid equipment.* The first aid kit shall be kept locked and be readily available at a location identified at the pool. The spineboard shall be kept in good repair and ready condition at the swimming pool.

(3) *Life lines.* Life lines separating shallow and deep areas shall be kept in good repair. They should be kept in place.

(4) *Breathing apparatus.* Self-contained breathing apparatus shall be kept in good repair and in a ready condition.

(5) *Anti-entrapment system.* Must be equipped with an unblockable drain that meets the ASME/ANSI A112.19.8 standard or anti-entrapment covers that are certified to meet the ASME/ANSI A112.19.8 standard and one of the following:

a. Safety vacuum release system (SVRS);

b. Suction-limiting vent system;

c. Gravity drainage system;

d. Automatic pump shut-off system;

e. Drain disablement;

f. Other systems as determined by the consumer product safety commission to be equally as effective or better than described in subsection (b)(5)a through e of this section.

(6) *Drain covers.* All swimming pool, spa, water slide, and water feature drains must be equipped with anti-entrapment covers or devices that comply with the ASME/ANSI A112.19.8 performance standard or any successor standard. Do not paint drain covers.

(c) *Emergency plan.* A plan of action for emergencies should be prepared, put in writing, made known to the staff, and practiced.

(d) *Single main drain.* Must be equipped with an unblockable drain that meets the ASME/ANSI A112.19.8 standard or anti-entrapment covers that are certified to meet the ASME/ANSI A112.19.8 standard and one of the following:

(1) Safety vacuum release system (SVRS);

(2) Suction-limiting vent system;

(3) Gravity drainage system;

(4) Automatic pump shut-off system;

(5) Drain disablement;

(6) Other systems as determined by the consumer product safety commission to be equally as effective or better than described in subsection (d)(1) through (5) of this section.

Sec. 46-133. - Pool rules.

(a) *Location and maintenance.* All pool use rules shall be located at conspicuous places and be legible.

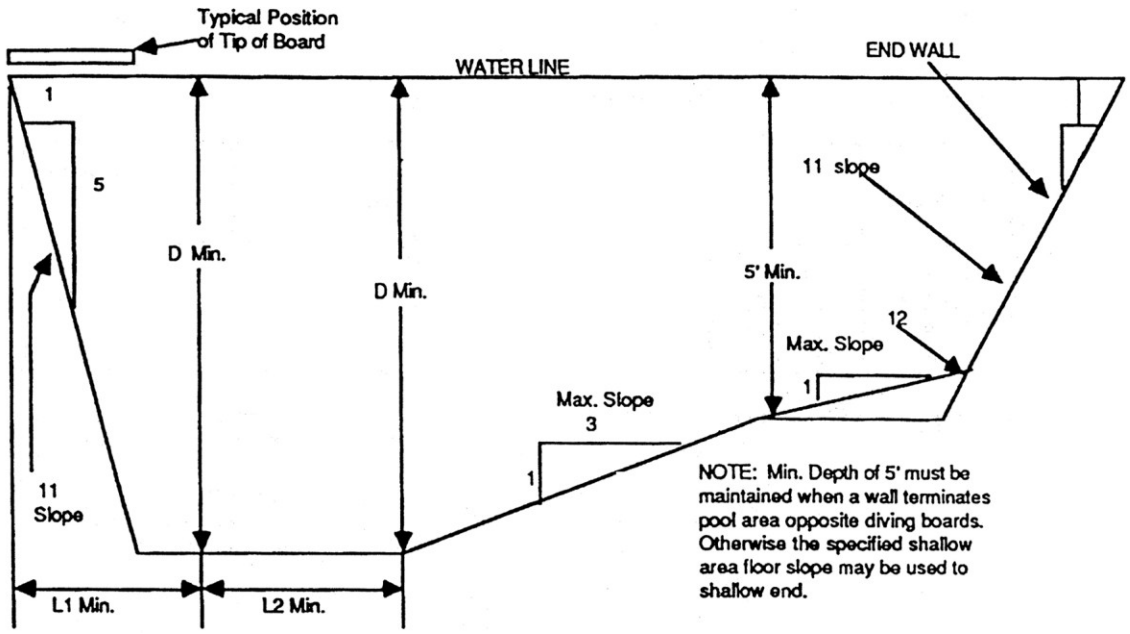
(b) *Contents.* The posted rules shall include: "Persons with infections not permitted. No food, drink, gum or tobacco permitted in pool or on deck. No containers made of glass or shatterable plastic. Shower before entering and after use of toilet facilities. No running or rough play. No pets allowed. Do not leave small or young children unattended."

(c) *Additional rules.* Whenever additional rules are needed to protect the health and safety of patrons, the management shall post and enforce such rules.

(d) *Warning signs.* Whenever the pool area is opened for use and no lifeguard service is required or provided, warning signs shall be placed in plain view to the entrances and inside the pool area which state "WARNING—NO LIFEGUARD ON DUTY" with clearly legible letters at least four inches high. Signage shall also indicate that children shall not use pool/spa without an adult in attendance.

Sec. 46-134. - Minimum dimensions for pools with diving equipment.

(a) Minimum dimensions for pools with diving equipment are as follows:



		Minimum Dimensions			
Maximum Board Height Over Water	Maximum Diving Board Length	D	L1	L2	Pool Width
26" (2/3 meter)	10'	8'6"	2'6"	10'0"	20'0"
30"(¾ meter)	12'	9'0"	3'0"	10'0"	20'0"
1 meter	16'	10'0"	4'0"	12'0"	20'0"
3 meters	16'	12'0"	6'0"	12'0"	20'0"

(b) Placement of boards shall observe the following minimum dimensions. With multiple board installations, minimum pool widths must be increased accordingly.

1 meter or less board to pool side	10'0"
3 meters board to pool side	12'0"
Distance between adjacent boards	10'0"

Sec. 46-135. - Fixtures required.

Fixtures required are as follows:

	Fixtures Required* Male						Fixtures Required* Female			
	Toilets		Urinals				Toilets			
Patron Load>	Dry	Wet	Dry	Wet	Lavatories	Showers	Dry	Wet	Lavatories	Showers
0—50	1		1		1	1	1		1	1
51—100	1		1		1	2	2		1	1
101—150	1		2		1	2	3		1	2
151—200	1		2		1	2	3		1	2
201—250	2		2		1	3	4		2	3
251—300	1	1	1	2	2	4	2	3	2	4
301—400	1	1	1	2	2	5	2	3	2	5
401—500	1	2	1	2	2	6	2	4	2	6
501—1,000	1	2	1	3	2	7	2	5	2	7
1,001—1,500	1	3	2	3	2	10	3	6	2	10
1,501—2,000	2	3	2	4	2	15	4	7	2	15
2,001 or more	2	4	3	4	3	20	5	8	3	20

* For swimming pools at schools, camps or similar locations where patron loads may reach peaks due to schedules of use, the fixture schedules should be increased.

Secs. 46-136—46-154. - Reserved.