PROPOSED REGULATION OF THE STATE BOARD OF HEALTH

LCB File No. R068-10

Chapter 444 – Public Spas

NAC 444 is hereby amended by adding thereto the provisions set forth as sections 1 to 154 inclusive of this regulation.

Definitions

Section 1.

Definitions. As used in in these regulations unless the context otherwise requires, the words and terms defined in these regulations have the meanings ascribed to them in those sections.

Sec. 2

"Abrasion hazard" defined. "Abrasion hazard" means a sharp or rough surface that would scrape the skin by chance during normal use.

Sec. 3

"Air induction system" defined. "Air induction system" means a system activated by a separate air power unit or blower which forces air into hollow ducting built into the spa floor, bench or other part of the spa.

Sec. 4

"Anti-vortex drain" defined. "Anti-vortex drain" means a drain having a raised cover designed to prevent or minimize any suctioning effect on a person that has come into contact with the drain.

Sec. 5

"Approved" defined. "Approved" means acceptable to the health authority based upon a determination concerning conformance with appropriate standards and good public health practices.

Sec. 6

"ASME" defined. "ASME" means the American Society of Mechanical Engineers.

Sec. 7

"Backwash" defined. "Backwash" means the process of thoroughly cleansing the filter medium and/or elements and the contents of the filter vessel by the reverse flow of water through the filter.

Sec. 8

"Barrier" defined. "Barrier" means a fence, wall, building wall or a combination thereof, which completely surrounds or covers the public spa and obstructs access to the public spa.

Sec. 9

"Bather" defined. "Bather" means any person using the spa and deck area for the purpose of therapy, water sports or related activities.

Sec. 10

"Blood-borne pathogen cleanup kit" defined. "Blood-borne pathogen cleanup kit" means a bodily fluid cleanup and disinfection kit that is maintained and completely supplied at all times and located with the first aid kit. The minimum contents of the kit include: a storage and collection bucket with cover; plastic gloves, a face mask; disposable towels, disposable sponges or other absorbent material; chlorine disinfectant in a watertight package; a properly identified bio-hazard disposal bag and; instructions.

Sec. 11

"Brominator" defined. "Brominator" means a device to apply or to deliver a bromine disinfectant to water at a controlled rate.

Sec. 12

"Cartridge" defined. "Cartridge" means a pleated, or surface-type filter component with fixed dimensions that is designed to remove suspended particles from water flowing through the filter.

Sec. 13

"Chemical feeder" defined. "Chemical feeder" means a mechanical device for applying chemicals to spa water.

Sec. 14

"Chlorinator" defined. "Chlorinator" means a device to apply or to deliver a chlorine disinfectant to water at a controlled rate.

Sec. 15

"Clarifier" defined. "Clarifier" means a chemical that coagulates and neutralizes suspended particles in water. There are two types: inorganic salts of aluminum or iron and water-soluble organic polyelectrolyte polymers. Also called coagulant or flocculent.

Sec. 16

"Coping" defined. "Coping" means the cap on the spa wall that provides a finishing edge around the spa. It can be formed, cast in place, pre-cast, or pre-fabricated from metal or plastic materials.

Sec. 17

"Cover" defined. "Cover" means something that protects and/or shelters, a spa.

Sec. 18

"Cross connection" defined. "Cross connection" means an unprotected connection between the piping carrying potable water and the piping or fixtures which carry other water or other substances.

Sec. 19

"Cyanuric acid" defined. "Cyanuric acid" means a chemical that helps reduce the excess loss of chlorine in water because the ultraviolet rays of the sun. It is also called stabilizer, isocyanuric acid, conditioner or triazinetrione.

Sec. 20

"Deck" defined. "Deck" means the unobstructed area around the perimeter of a public spa, adjacent to the water, that is used primarily by bathers for sitting, standing or walking.

Sec. 21

"Disinfectant" defined. "Disinfectant" means energy or chemicals to kill undesirable or pathogenic (disease-causing) organisms that have a measurable residual at a level adequate to make the desired kill.

Sec. 22

"DPD" defined. "DPD" means a reagent, Diethl-p-phenylene diamine (DPD) and test method that specifically measures bromine or free available and total chlorine; producing a series of colors from pale pink to dark red.

Sec. 23

"Effective filter area" defined. "Effective filter area" means total surface area through which the designed flow rate will be maintained during filtration.

Sec.

"Filter" defined. "Filter" means a device that removes undissolved particles from water by recirculating the water through a porous substance (a filter medium or element).

Sec. 24

"Filter element" defined. "Filter element" means a device within a filter tank designed to entrap solids and conduct water to a manifold, collection header, pipe, or similar conduit and return it to the spa. A filter element usually consists of a septum and septum support or a cartridge.

Sec. 25

"First aid kit" defined. "First aid kit" means a kit used to treat injuries until additional help arrives. The kit must be maintained and completely supplied at all times. As a minimum each must contain: First Aid pocket guide,supply checklist,assorted sterile gauze pads (4x4, 3x3, 5x9, etc.) with adhesive tape,antiseptic wipes or hydrogen peroxide, scissors, tweezers, triangular bandages, roller gauze, disposable single use gloves, eye protection, face shields, or goggles, first aid pocket masks as a barrier for rescue breathing or CPR, space blanket, and a small trash bag or bio-hazard bag.

Sec. 26

"Free available chlorine" defined. "Free available chlorine" means that portion of the total chlorine remaining in chlorinated water that has not combined with ammonia or nitrogen compounds and will react chemically with undesirable or pathogenic organisms.

Sec. 27

"Hardness" defined. "Hardness" means the amount of calcium and magnesium dissolved in water; measured by a test kit and expressed as parts per million (ppm) of equivalent calcium carbonate.

Sec. 28

"Health authority" defined. "Health authority" means officers and agents of the Health Division or of the local boards of health.

Sec. 29

"Hydro-jet" defined. "Hydro-jet" means a fitting which blends air and water creating a high velocity turbulent stream of air and water.

Sec. 30

"Hydro-jet pump system" defined. "Hydro-jet pump system" means a system in which one or more hydro-jets are activated by the use of a pump which is completely independent of the filtration and heating system of the spa.

Sec. 31

"Influent" defined. "Influent" means the water entering a filter or other device.

Sec. 32

"Innovative design or feature" defined. "Innovative design or feature" means a design feature, equipment, device,or operative procedure not specifically covered under these regulations.

Sec. 33

"Ladder" defined. "Ladder" means a series of vertically separated treads or rungs connected by vertical rail members or independently fastened to a vertical spa wall.

Sec. 34

"Marking" defined. "Marking" means the placement and installation of visual marking cues to help patrons identify step, bench, depth designations, and other warnings.

Sec. 35

"Multiport valve" defined. "Multiport valve" means a separate switching valve that has a separate position for each of the various filter operations and that combines in one unit the functions of two or more direct-flow valves.

Sec. 36

"NTU" defined. "NTU" means nephelometric turbidity units, a measure of water clarity.

Sec. 37

"Organic matter" defined. "Organic matter" means perspiration, urine, saliva, suntan oil, cosmetics, lotions, dead skin and similar debris introduced to water by users and the environment.

Sec. 38

"Overflow system" defined. "Overflow system" means a system for the removal of spa surface water through the use of overflows, surface skimmers and surface water collection systems of various design and manufacture.

Sec. 39

"Overflow system" defined. "Overflow system" means perimeter-type overflows, surface skimmers, and surface water collection systems of various design and manufacture.

Sec. 40

"Person" defined. "Person" includes governmental agencies.

Sec. 41

"pH" defined. "pH" means a value expressing the relative acidity or basicity of a substance, such as water, as indicated by the hydrogen ion concentration.

Sec. 42

"Plastic" defined. "Plastic" means any of numerous organic, synthetic, or processed materials which are composed mostly of thermoplastic or thermosetting polymers of high molecular weight and which can be molded, cast, or extruded at some stage in manufacture or in processing into finished articles or objects, or can be shaped by flow.

Sec. 43

"Potable water" defined. "Potable water" means any water, such as an approved domestic water supply, which is bacteriologically safe and otherwise suitable for drinking and meets the standards established by the Nevada Division of Environmental Protection as defined in NRS 445A.855.

Sec. 44

"ppm" defined. "ppm" means an abbreviation for parts per million. The unit of measurement used in chemical testing which indicates the parts by weight in relation to one million parts by weight of water. It is essentially identical to the term milligrams per liter (mg/L).

Sec. 45

"Prefabricated spa" defined. "Prefabricated spa" means a public spa that has been designed by a licensed professional engineer to be fabricated at a factory into a packaged unit consisting of all of the required components for a public spa, with construction on-site consisting mainly of assembling the components.

Sec. 46

"psi" defined. "psi" means an abbreviation for pounds per square inch.

Sec. 47

"Public spa" defined.

1. "Public spa" means any spa operated by any person, whether owner, lessee, operator, licensee or concessionaire, for the use of the public or the membership of an organization, whether or not a fee is charged for its use.

2. The term does not include spas at single-family private residences which are controlled by the homeowner, the use of which is limited to swimming or bathing by members of the family or invited guests.

Sec. 48

"Qualified professional" defined. "Qualified professional" means a person who is professional engineer registered in this State, an architect who is registered in this State, or a licensed contractor who holds a classification A license with an A-10 sub-classification issued by the State Contractors' Board.

Sec. 49

"Ramp" defined. "Ramp" means a sloping floor, walk or roadway leading from one level to another, or leading to the spa edge and having a maximum slope of 1:12.

Sec. 50

"Rate of flow" defined. "Rate of flow" means the quantity of water flowing past a designated point within a specified time, such as the number of gallons flowing in one minute (gpm).

Sec. 51

"Recessed steps" defined. "Recessed steps" means a riser and tread or a series of risers and treads extending down into the deck with the bottom riser and tread ending at the spa wall, creating a stair well.

Sec. 52

"Recessed treads" defined. "Recessed treads" means a series of vertically spaced cavities in the spa wall creating tread areas for step-holes.

Sec. 53

"Recirculation equipment" defined. "Recirculation equipment" means the mechanical components that are part of a recirculation system in a spa. Recirculation 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. The components have separate functions, but when connected to each other by piping, perform as a coordinated system for purposes of maintaining spa water in a clear, sanitary and desirable condition.

Sec. 54

"Recirculation system" defined. "Recirculation System" means an arrangement of mechanical equipment or components, connected by piping to a spa in a closed circuit. The function of a recirculation system is to direct water from the spa, causing it to flow through the various system components for purposes of clarifying, heating, purifying and returning the water back to the original body of water.

Sec. 55

"Remodel" defined.

1. "Remodel" means to replace all or part of any structure, recirculation system or appurtenance of a public spa or spa facility or to modify it to the extent that its design, configuration or operating characteristics differ in any respect from those of the original.

2. The term does not include normal maintenance and repair or the replacement of equipment that has previously been approved unless the result of the maintenance or repair is that the type, size or operating characteristics of the equipment are substantially different from those of the original.

Sec. 56

"Removable" defined. "Removable" means capable of being disassembled with the use of only simple tools such as a screwdriver, pliers or wrench.

Sec. 57

"Slip resistant" defined."Slip resistant" means a finish or textured surface with out any abrasion hazards and designed to prevent or reduce slipping by bare skin in contact with it under wet conditions. The surface must not be an abrasion hazard.

Sec. 58

"Shock treatment" defined. "Shock treatment" means the practice of adding significant amounts of an oxidizing chemical to water to destroy ammonia, nitrogenous and organic contaminants in water.

Sec. 59

"Spa" defined.

1. "Spa" means a body of water primarily designed for therapeutic use which is not drained, cleaned or refilled for each user.

2. The term includes units which employ hydro-jet circulation, hot water, cold water, mineral water, air induction bubbles or combinations of them.

Sec. 60

"Spa enclosure" defined. "Spa enclosure" means an effective barrier for excluding unauthorized persons from the spa area and the area inside of the fence or barrier surrounding the spa.

Sec. 61

"Spectator and visitor area" defined. "Spectator and visitor area" means an area approved by the health authority where people may socialize, eat and drink and which does not include the spa deck.

Sec. 62

"Stairs" defined. "Stairs" means a riser and tread or a series of risers and treads extending down from the deck into the spa.

Sec. 63

"Steps" defined. "Steps" means stairs or ladders designed to permit entry and exit to and from the spa.

Sec. 64

"Suction line" defined. "Suction line" means that piping through which water is removed from the spa.

Sec. 65

"Suction outlet" defined. "Suction outlet" means the opening or fitting through which the water under negative pressure is drawn from the spa.

Sec. 66

"Test kit" defined. "Test kit" means a device used to monitor specific chemical or agent residuals or demands in spa water.

Sec. 67

"Time clock" defined. "Time clock" means a device that automatically controls the periods that a pump, filter, chlorinator, heater, blower and other electrical devices are running.

Sec. 68

"Total alkalinity" defined. "Total alkalinity" means the ability or capacity of water to resist change in pH; also known as the buffering capacity of water.

Sec. 69

"Total available chlorine" defined. "Total available chlorine" means the sum of both the free available and combined chlorines.

Sec. 70

"Toxic" defined. "Toxic" means a quantity which might produce an adverse physiological effect on a person.

Sec. 71

"Turbidity" defined. "Turbidity" means the cloudy condition of water because of the presence of extremely fine particulate materials in suspension that interfere with the passage of light.

Sec. 72

"Vacuum" defined. "Vacuum" means the reduction of atmospheric pressure within a pipe, tank, pump or other vessel. Vacuum is measured in inches of mercury. One inch (1") of mercury is equivalent to one and thirteen hundreds feet of head. The practical maximum vacuum is thirty inches (30") of mercury or thirty three and nine tenths feet of head.

Sec. 73

"Virginia Graeme Baker Pool and Spa Safety Act " defined. "Virginia Graeme Baker Pool and Spa Safety Act" means a 2008 act of Congress specifically "Public Laws 110–140" which define certain drain requirements pertaining to pool and spa safety.

Sec. 74

"Waterline" defined. "Waterline" means where a skimmer system is in use, the midpoint of the operating range of the skimmer or the height of the overflow rim when an overflow system is used.

Sec. 75

Applicability.

1. The provisions of these regulations referring to construction or modifications apply to all public spas constructed on or after July 1, 2010 and to any other public spa, where, in the opinion of the health authority, enforcement of those provisions is necessary to eliminate a condition hazardous to health or safety.

2. The provisions of these regulations pertaining to maintenance and sanitation apply to all public spas.

Sec. 76

Severability. If any provision of these regulations is declared unconstitutional or invalid for any reason, the remainder of the provisions of those sections are not intended to be affected thereby.

Plans

Sec. 77

Application; plans and specifications.

1. Any person desiring to construct a public bathing or swimming facility or to remodel or add to an existing facility must apply in writing to the health authority on forms furnished by the health authority, giving the name of the facility and its location together with such other

information as may be required. The application must be accompanied by plans and specifications with supporting data prepared by a qualified professional. A licensed professional engineer or a registered architect shall include his seal and signature on any plans and specifications submitted to the health authority. A licensed contractor shall include his signature on any plans and specifications submitted to the health authority.

2. The plans must be drawn to scale, contain a north arrow and must be accompanied by proper specifications so as to permit a comprehensive engineering review of the plans. The plans must include:

(a) Plan and sectional views with all necessary dimensions of the facility.

(b) A piping diagram showing all appurtenances including treatment facilities in sufficient detail, as well as pertinent elevation data, to permit a hydraulic analysis of the system.

(c) Details on all treatment equipment, including catalog identification. If mechanical equipment is specified by the use of a trade name or catalog numbers, individual leaflets, catalogs or other descriptive material must be furnished.

(d) An electrical diagram showing the method of grounding, junction boxes and other pertinent details.

(e) Detailed plans of bathhouses, equipment rooms, dressing rooms, toilet facilities, showers and other appurtenances.

3. The plans and specifications must be submitted in triplicate. Additional copies of the plans must be submitted if requested by the health authority.

4. The submitted plans must be approved in writing before any construction is undertaken.

5. The public bathing or swimming facility must be designed so that bather safety and health are not compromised after the facility is in operation.

Sec. 78

Changes in plans; structural adequacy.

1. The facility must be built in accordance with the plans as approved, unless prior approval of the changes has been given in writing by the health authority.

2. The review of the plans by the health authority will not include a review of the structural design or structural stability of any section or part of the facility. Certification of structural adequacy is the responsibility of the architect or a qualified professional engineer who is licensed by the Nevada State Board of Registered Professional Engineers and Land Surveyors.

Sec. 79

Inspections.

1. The owner or his agent shall notify the health authority at specific predetermined stages of construction and at the time of completion of the facility, to permit inspection of the facility during and after construction.

2. In areas where the health authority cannot provide the inspections and where the local government does not require building inspections, the owner or his agent may be required to hire a third party inspector. The third party inspector may be selected by the owner or his agent upon the approval of the health authority.

3. The facility may not be placed in operation until the inspection shows compliance with the requirements of these regulations.

Construction Standards

General

Sec. 80

Use of equipment and materials not designated by NSF International. The health authority may permit the use of equipment and materials which are not designated by the NSF International as complying with the standards adopted pursuant to these regulations, if the health authority determines that the equipment and materials comply with standards equivalent to the NSF International Standards.

Sec. 81

Alternate equipment, materials, and methods of construction.

1. The health authority may approve an alternative equipment material or method of construction, provided it finds that the proposed design is satisfactory and complies with the provisions these regulations, that the equipment, material, method or work offered is, for the purpose intended, at least equivalent to that prescribed in suitability, strength, effectiveness, fire resistance, durability, safety, and sanitation, or that the methods of installation proposed conform to other acceptable nationally recognized standards, and providing the alternate has been approved and its use authorized by the health authority.

2. The health authority will require that sufficient evidence or proof be submitted to substantiate any claims that may be made regarding its the use of alternate equipment, materials or methods of construction.

3. Whenever there is insufficient evidence of compliance with the provisions of these regulations, the health authority may require tests as proof of compliance to be made at no expense to the health authority.

4. Tests must be made in accordance with approved standards, but in the absence of such standards, the health authority will specify the test procedure.

Sec. 82

Location. A spa must be located where it will not be exposed to undesirable substances or surface drainage from surrounding areas.

Sec. 83

Shape. The shape of any public spa must be such that the recirculation of the water will not be impaired.

Sec. 84

Depth.

1. The maximum water depth for a public spa is 4 feet (1.22 meters), measured from the waterline. Exceptions may be made by the health authority for spas designed for special purposes such as instruction, treatment and therapy.

2. The maximum depth for any seat or sitting bench in a public spa is 2 feet (60.96 centimeters) measured from the waterline.

Sec. 85

Depth markings. Spas must have permanent depth markings plainly and conspicuously posted and located as follows:

1. The maximum water depth must be clearly marked and be in numerals not less than 4 inches (10.16 centimeters) in height and of a color contrasting with the background.

2. Depth markings must be positioned within 18 inches (46 centimeters) of the water's edge.

3. Depth markings must be positioned to be read while standing on the deck facing the water to be plainly visible to persons in the spa and to persons about to enter the water..

4. There must be at least two depth markings per spa regardless of spa size or shape.

Sec. 86

Slope.

1. The slope of the spa floor must not exceed 1 foot (30.50 centimeters) of fall in 12 feet (3.66 meters).

2. The slope must be uniform, and the bottom surface must be smooth but must have a slip-resistant finish.

3. All portions of the spa bottom must have a definite slope toward the spa drains.

Sec. 87

Equipment rooms.

1. Pumps, chlorinators, filters and other electrical equipment must be installed in a protective enclosure such as a room or building and be locked, permitting access only to authorized personnel.

2. If any part of the equipment room is below grade, access by stairway and suitable drainage, by sump pump if necessary, must be provided. If an open stairwell is used, ventilation through a fully louvered door and a permanently open louvered vent on at least one other side of the room is required. Enclosed stairways require louvered vents on three sides of the room or an exhaust fan. The access opening must be at least 3 feet x 6 feet (0.91 x 1.82 meters).

3. Equipment must be installed so that there is adequate clearance to allow for its normal operation and maintenance. An equipment room must have space to only store chemicals and auxiliary equipment necessary for the operation and maintenance of the facility.

4. Equipment rooms constructed after July 1, 2010 must have a floor drain.

5. All equipment rooms must be lighted to properly operate and maintain the equipment.

Sec. 88

Materials.

1. Materials used in components and accessories used in and around public spas must non toxic and not be hazardous to humans or to the environment in which the spa is installed. These materials must be capable of fulfilling the requirements of design, installation and intended use.

2. All materials and accessories to be used in and around public spas must be selected to ensure that all parts with external surfaces and edges which might come in contact with a bather are assembled, arranged and finished so that they will not constitute a hazard to the health or safety of children or adults who are using the spa for its intended purpose.

3. Wood may not be used in a public spa however decks made of wood are allowed if properly sealed and maintained.

Sec. 89

Structural design.

1. The structural design and materials used in constructing a public spa must meet generally accepted structural engineering practice and provide a sound, durable structure which will safely sustain all the dead loads, live loads, liquid, hydrostatic and earth pressures involved. The spa must be watertight and the surfaces must be inert, nontoxic, smooth and easily cleaned, and should be light in color.

2. The strength of the assembled or installed components and accessories used in and around a public spa must be such that no structural failure of any component part can cause the failure of any other part.

3. Innovative spa designs are subject to the review and approval by the health authority.

Sec. 90

Steps, ladders, treads and handrails required.

1. Spa steps, ladders or recessed treads must be provided when the spa is more than 2 feet (60.96 centimeters) deep.

2. A spa must be equipped with at least one handrail (or ladder equivalent) for each 50 feet (15.25 m) of perimeter or portion thereof, to designate the point or points of entry and exit.

Sec. 91

Spa steps and recessed steps. Where required, spa steps and recessed steps must meet the following specifications:

1. Step treads must have a minimum unobstructed horizontal tread depth of 10 inches (25.40 centimeters) and a minimum width of 12 inches (30.48 centimeters). Step treads must have slip-resistant surfaces.

2. Step risers must not be less than 7 inches (17.78 centimeters) high nor more than 1 foot (30.48 centimeters) high. When the bottom tread serves as a bench or seat, the bottom riser must be no more than 1 foot 2 inches (35.56 centimeters) high. The first and last risers need not be uniform in height, but must comply with the requirements of this subsection. The height of the top riser must be measured from the finished deck. Risers between the first and last risers must be uniform in height.

3. The horizontal edge of a step, seat or bench tread must be constructed of a material which contrasts with the color of the steps, and must be clearly visible and evident to bathers. The contrasting material on the horizontal edge must be at least 2 inches (5.08 centimeters) wide.

4. The outside edge of handrails placed to assist bathers to leave the spa must be located not more than 1 foot 9 inches (53.34 centimeters) or less than 1 foot 3 inches (38.10 centimeters) from a line drawn vertically from the bottom riser, away from the spa wall.

5. Seats or benches may be provided as part of the steps.

Sec. 92

Recessed treads. Recessed treads, when provided, must meet the following specifications:

1. Step-holes must be:

(a) Uniformly spaced, not more than 1 foot (30.48 centimeters) nor less than 7 inches (17.48 centimeters) apart at the center-line

(b) At least 5 inches (12.70 centimeters) deep and at least 1 foot (30.48 centimeters) wide.

2. Step-hole treads must be sloped to drain into the spa to prevent accumulation of dirt.

3. The vertical distance between the spa coping edge and the uppermost recessed tread must be 1 foot (30.48 centimeters) or less.

4. Each set of recessed treads must be provided with two handrails which fully serve all treads and risers.

Sec. 93

Ladders. Where required, ladders must meet the following specifications:

1. Spa ladders must be made entirely of corrosion-resistant materials.

2. Ladder treads must have slip-resistant surfaces.

3. All ladders must be designed to provide a handhold and must be rigidly installed.

4. Ladder designs must provide two handholds or handrails which fully serve all treads. The outside diameter of handrails must not be more than 1.9 inches (4.83 centimeters) or less than 1 inch (2.54 centimeters).

5. There must be a clearance between a ladder and a spa wall must not be more than 5 inches (12.70 centimeters), nor less than 3 inches (7.62 centimeters), between any ladder rung and the spa wall.

Sec. 94

Handholds.

1. A public spa must be provided with suitable handholds around the perimeter in areas where the spa is more than 3 feet 6 inches (1.07 meters) deep, measured from the deepest point of the spa floor to the waterline.

2. Handholds must be spaced no farther apart than 4 feet (1.22 meters) and must be provided with a suitable, slip-resistant surface.

3. Handholds may be:

(a) Ledges, radiused flanges, or cantilevered decks along the immediate top edge of the spa, located not more than 1 foot (30.50 centimeters) above the waterline.

(b) A rope or railing placed not more than 1 foot (30.50 centimeters) above the waterline, fastened to the spa wall.

(c) Ladders, steps and seat ledges.

(d) A combination of the handholds listed in this section.

4. The overhang for coping or cantilevered decking:

(a) Must not exceed 2 inches (5.08 centimeters) or be less than 1 inch (2.54 centimeters).

(b) Must not exceed 2 1/2 inches (6.4 centimeters) in thickness for a spa for which an operating permit has been issued before January 16, 1996.

(c) Must not exceed 3 1/2 inches (8.89 centimeters) in thickness for a spa for which an operating permit is issued on or after January 16, 1996.

Sec. 95

Miscellaneous requirements.

1. The surface finish of all public spas, including the bottom and sides, must be light-colored material and must present a smooth surface which can be easily cleaned and which has no cracks, openings, seams or expansion joints and not be an abrasion hazard.

2. The finished trim dimension tolerances for prefabricated units must be the manufacturer's stated "rough-in" dimensions ±1/2 inch (±1.27 centimeters).

3. Each prefabricated spa must be supplied by the manufacturer with a copy of the manufacturer's written installation instructions affixed to the spa in a conspicuous place.

4. Each prefabricated spa must be supplied with a copy of the manufacturer's written care and maintenance instructions affixed to the unit in a conspicuous place.

5. The manufacturer's name, trademark, or both, must be permanently and legibly marked on each prefabricated spa so that it is visible after installation.

Sec. 96

Use of manufactured products to resist slipping. A manufactured product may not be used at a public spa or spa facility to provide a slip-resistant finish or surface unless it is intended by the manufacturer to provide resistance to slipping under wet conditions.

Sec. 97

Drinking fountains. A drinking fountain must be provided within 100 feet (30.48 meters) of the spa where it will be readily accessible by the bather. The drinking fountain may be inside or outside the spa enclosure.

Sec. 98

Roofs and canopies. Roofs and canopies over public spas must be constructed so that moisture or condensation from the roof or canopy does not drain into the spa.

Sec. 99

Air induction systems. An air induction system must totally prevent water backup which could cause electrical shock hazards.

Decks

Sec. 100

Decks: Dimensional design.

1. A continuous unobstructed deck at least 4 feet (1.22 meters) wide, including the coping, must be provided around at least half of the perimeter of the spa. Deck and wall junctures must be coved with a minimum of 4 inches (10.16 centimeters). Decks elevated above the

normal walking level of the area must have protective safety barriers at the edge as required by NAC 444.xxx.

2. Risers of steps for the deck must be uniform and be not less than 3.75 inches (9.53 centimeters) nor more than 7.75 inches (19.70 centimeters) high. The minimum tread width is 10 inches (25.40 centimeters).

3. The maximum slope of decks is 0.5 inch per foot (4 centimeters per meter) except for ramps. Ramps may have a slope of not more than 5 percent.

4. The maximum voids between adjoining concrete slabs or between concrete slabs and expansion joint material is .2 inch (.51 centimeters) of horizontal clearance, with a maximum difference in elevation of .25 inch (.64 centimeters).

5. Joints where spa coping meets concrete deck work must be watertight and must not allow water to seep to the ground beneath. Joints in decks must be provided to prevent cracks which may be hazardous because of differences in elevations, separation of surfaces or movement of the deck.

6. Areas where deck work joins concrete work other than the spa must be protected by expansion joints filled with nonrigid material such as mastic to protect the spa from the pressures of relative movements. In the absence of specific local engineering practices, the work must be performed in accordance with recommended practices of the American Concrete Institute.

7. Where deck work joins the spa coping, the joining areas must be designed and installed to protect adequately the spa coping and its mortar bed from damage as a result of reasonable movement of adjoining deck work.

8. Decks must be edged, radiused or otherwise relieved so as to present no exposed sharp corners.

9. Decks must be sloped as required by subsection 3 to drain to perimeter areas or to deck drains. Deck drains must not be greater than 25 feet (7.62 meters) apart and must not return water to the recirculation system. Drains must remove spa splash water, deck cleaning water, and rainwater at a rate approximately equal to the rate of arrival without leaving excessive puddles.

10. Deck work must be designed and installed in accordance with engineering practices required in the area of installation. This includes, but is not limited to, the design and quality of the sub-base when required, concrete mix design, and reinforcing. In the absence of specific local engineering practices, the work must be performed in accordance with recommended practices of the American Concrete Institute.

Sec. 101

Decks: Surfaces.

1. Except as otherwise provided in this subsection and in these regulations a clear, unobstructed deck must be provided around the entire perimeter of a spa. In no case may the width of the deck be less than 4 feet (1.22 meters).

2. Decks, ramps and similar surfaces, including step treads, must be slip resistant without an abrasion hazard.

3. Special features in or on decks, such as depth markings, spa brand insignia or similar markings, must conform to the requirements of these regulations.

4. The ground on which any spa structure rests must be adequately compacted to properly support the structure.

5. The paved area of the deck must extend not less than 4 feet (1.2 meters) from both sides and rear of any diving board or its appurtenances.

6. Deck drainage is required and must meet the following requirements:

(a) The surface of the paved deck must not drain into the spa or the overflow gutter;

(b) Drainage must be conducted from the deck in a manner that will not create muddy, hazardous or objectionable conditions;

(c) Decks must slope on a minimum slope of 1/4 inch (0.64 centimeter) per foot (30.48 centimeters) or 2 percent to the drains to points at which the water will have a free, unobstructed flow to points of disposal at all times;

(e) If deck drains are provided, they must be spaced or arranged so that not more than 400 square feet (37.16 square meters) of area is tributary to each drain and drains must not be more than 25 feet (7.62 meters) apart and

(f) Drainage from the decks must not be returned to the recirculation system.

7. The deck must have a slip-resistant surface that can be cleaned by hosing and causes no discomfort or injury to bare feet.

8. Provision must be made to prevent the drainage of materials from lawns or landscaped areas onto the spa decks or into the spa.

9. Decks and walkways must be maintained free of standing water and must have non-slip surfaces free of abrasion hazards.

10. Wooden decks, walks or steps must be sealed and free of rot or water damage.

11. Steps serving decks must meet the following requirements:

(a) Risers of steps for the deck must be uniform and have a minimum height of 3-3/4 inches, (9.53 centimeters), and a maximum height of 7-3/4 inches, (19.69 centimeters);

(b) The minimum run of steps must be 10 inches (25.4 centimeters) and

(c) Steps must have a minimum width of 18 inches (45.72 centimeters).

12. Wood decking, carpeting or artificial turf deck surfaces are prohibited within 4' (1.22 meters) of spas or within the limits of the deck drainage. Spas previously approved with deck surfaces not complying with these requirements must comply at such time when the surface requires repair or is replaced.

11. Joints between concrete deck slabs must be watertight and must be designed so as to protect the spa, coping and its mortar bed from movement of the deck.

12. Decks must be provided with expansion joints where needed.

13. Voids between adjoining concrete deck slabs must be no greater than 3/16" (5 millimeters).

14. Adjoining deck surface elevations must vary no more than 1/4" (6 millimeters).

Barriers

Sec. 102

Barriers; exclusion of unauthorized persons.

1. Provision must be made to exclude unauthorized persons from any spa or spa area. A spa must be surrounded by a fence, wall, building or other barrier that completely encloses the spa area and otherwise complies with the requirements of this section. No part of a spa enclosure may be used for common foot traffic.

2. An emergency fire exit must be provided in the fence or structure enclosing the spa area, and this exit must be plainly marked. A suitable fire extinguisher must be maintained in the checking stand or other easily accessible location clearly marked.

3. The barrier must be impenetrable for small children and must not offer any external handholds or footholds.

4. Barriers must be located so as to prohibit permanent structures, equipment or similar objects from being used to climb the barriers.

6. In the case of a spa operated solely for and in conjunction with a hotel, motel or other place of lodging, or a trailer park, apartment, condominium or other facility containing multiple dwellings, the barrier must be not less than 5 feet (1.52 meters) in height.

7. Courtyard-type concepts in which gates or doors open directly into a spa enclosure from a dwelling unit or hotel or motel room are not permitted. In any other case, the barrier must be not less than 6 feet (1.83 meters) in height.

8. Any vertical members in the barrier must not be more than 4 inches (10.16 centimeters) apart.

9. Any opening at the bottom of the barrier must not be more than 4 inches (10.16 centimeters) in height.

10. Any gate or door that opens into the spa area:

(a) Must be equipped with permanent locking devices and self-closing and positive self-latching mechanisms. Self-closing and self-latching mechanisms must be located not less than 3 1/2 feet (1.06 meters) above the ground.

(b) Entrances with self-closing and self-locking devices requiring the use of a key, key card, or combination code to gain access may have controls 36" to 54" (0.91 meter to 1.35 meters) above the exterior ground surface. The gates or doors cannot require a key, key-card or combination to exit the spa area.

(c) Must self-close and positively self-latch from any open position.

(d) Must not be blocked open or otherwise disabled to prevent closing and latching.

(e) Must, in the case of an indoor spa, be made of metal and installed in a metal frame.

12. The operator of the spa shall periodically inspect each gate or door of the facility to ensure that it is operating properly.

13. Facilities, such as large resort hotels, which have continuous, 24-hour-a-day security of the spa area may be exempt from the requirements of this section.

14. Where existing construction prohibits compliance with the requirements of this section, the owner shall file with the health authority an operation procedure which will serve to ensure the exclusion of unattended small children from the spa.

15. When a chain link mesh is use, the maximum mesh size must be one and one- fourth inches (3.18 centimeters) square unless the fence is provided with slats fastened at the top or the bottom which reduce the openings to no more than one and one fourth inches (3.18 centimeters)

16. Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members must be no more than one and one-fourth inches (3.18 centimeters).

17. When a spa is closed to patrons, all entry/exit points must be properly maintained and secured against unauthorized entry.

18. Construction methods and materials must be used that provide a durable and low maintenance structure. The health authority may approve alternate enclosure materials and methods where it finds such materials and methods equivalent to those described.

19. For outdoor spas, a security-type spa cover may only be added as an additional layer of security for the spa, especially during the off season for those spas which maintain water in the spa basin.

Electrical

Sec. 103

Electrical requirements.

1. All new electrical wiring in a public bathing or swimming facility must conform with the design specification submitted by a qualified professional and all equipment, fixtures and wiring must bear an appropriate label issued by Underwriters Laboratories Inc., or an equivalent organization.

2. All electrical devices such as portable announcing systems, radios and soft drink dispensers that might be around the spa deck and immediate environment must not be within the reach of bathers.

3. Ground fault circuit interrupters must be provided on all new facilities for all lighting circuits as well as for motors and other electrical circuits in the area of any spa. These devices are required on an existing facility if the health authority determines it is necessary to protect the safety of bathers.

Sec. 104

Lighting.

1. Artificial lighting must be provided for all facilities, bathhouses, toilet rooms, dressing rooms, and equipment rooms that are to be used at night or that do not have adequate natural lighting.

2. Area lighting must not be installed directly over the spa water surface. Area lights must be shielded.

3. Spas designed and maintained for use at night must be equipped with lighting designed and spaced so that all parts of the spa, including the bottom, may be readily seen without glare.

4. The lighting system for outdoor spas must be designed with sources of illumination located so as to prevent insects attracted by the lights from falling into the water.

5. Where underwater lighting is used, not less than 0.5 watts (10 lamp lumens) must be employed per square foot (.093 square meter) of water surface area.

6. If bathing or swimming at night is permitted and underwater lighting:

(a) Is used, area lighting must be directed toward deck areas to the extent practical and not less than 0.6 watts must be employed per square foot (.093 square meter) of deck area.

(b) Is not used, area and spa lighting must be provided and not less than 2.0 watts must be employed per square foot (.093 square meter) of deck area.

(c) Underwater lighting may be installed on the bottom step or bench riser only.

7. The lenses of spa lights must be clear so that the inside of the light is visible during inspection.

8. If lighting is not provided as required by this section, the operator of the facility:

(a) Must not permit any use of the facility or bathing place after dark.

(b) Must post a sign stating "NO SWIMMING, BATHING OR OTHER USE OF FACILITY ALLOWED AFTER DARK," in contrasting characters not less than 4 inches (10.16 centimeters) in height, near each entrance to the facility or bathing place.

9. The health authority may deny the installation and use of any electrical appliance, device, or fixture, if its power service is routed under a spa or within the area extending 5 feet (1.52 meters), horizontally from the inside wall of the spa, except in the following circumstances;

(a) For underwater lighting or

(b) Electrically powered automatic spa shell covers

Sanitary Facilities

Sec. 105

Required facilities.

1. Dressing facilities, shower facilities and drinking fountains conforming to the minimum requirements of this section must be provided for each public bathing or swimming facility except where the users of the facility have access to showers, toilet and dressing facilities in adjacent living quarters or such facilities are otherwise available for use by all persons who may use the facility.

2. No difference in elevation, requiring steps, may exist in the interior of male or female dressing areas.

3. No steps are permitted between the bathhouse and the adjoining deck areas. If it is necessary that the bathhouse floor be at a different elevation than the deck, ramps must be provided at the access doors. Where ramps are used between the bathhouse and the deck, the slope may not exceed 3 inches per foot (7.62 centimeters per 30.48 centimeters) or 25 percent and must be positively slip-resistant.

4. The entrances and exits to the dressing areas must be screened to break the line of sight.

5. These facilities must be under the general supervision of the owner of the public bathing or swimming facility.

6. As used in this section:

(a) "Adjacent" means that not more than 10 percent of bathers will have to travel more than 300 feet (91.4 meters) to sanitary facilities.

(b) "Living quarters" includes any hotel, motel or other place of lodging, or a trailer park, apartment, condominium or other facility containing multiple dwellings.

7. For distances greater than that provided in paragraph (a) of subsection 6, the following minimum sanitary facilities must be provided in the bath house:

Men: 1 water flush toilet	*Women: 1 water flush toilets*
1 lavatory	*1 lavatory*
1 shower	*1 shower*

8. Potable water must be provided at all shower heads. Water heaters and thermostatically controlled mixing valves must be inaccessible to bathers and must be capable of providing 2 gallons per minute (7.57 liters per minute) to each shower head for each bather.

9. Soap must be dispensed at all lavatories and showers. Soap dispensers must be constructed of metal or plastic. Use of bar soap is prohibited.

10. Fixtures must be designed so that they may be readily cleaned. Fixtures must withstand frequent cleaning and disinfecting.

11. At least one covered waste can must be provided in each restroom.

Sec. 106

General requirements.

1. The rooms of bathhouses must be well lighted, drained, ventilated and of good construction, with impervious materials employed in general. They must be finished in light colors and so developed and planned that good sanitation can be maintained throughout the building at all times.

2. Every bathhouse must be provided with separate facilities for each sex with no interconnection between the provisions for male and female.

3. No food, drink or glass containers are permitted in the dressing room or bath areas.

Sec. 107

Ventilation.

1. Indoor spas, shower rooms, dressing rooms, and toilets of all public bathing or swimming facilities and natural bathing places must be properly ventilated. The ventilating system for indoor spas must be so designed as to prevent direct drafts on the bathers.

2. All interior rooms must be ventilated so that they do not remain excessively damp.

3. Toilet rooms must be ventilated to the outside so that no odor nuisance may develop.

Sec. 108

Floors.

1. Floors of the bathhouse must be of smooth finished material with a slip-resistant surface and impervious to moisture. Junctions between walls and floors must be coved.

2. Floor drains must be provided to ensure positive drainage of all parts of the building with a slope in the floor of not less than 1/4 inch per foot (2 percent) (64millimeters per 30.48 centimeters) toward drains. Carpeting may not be installed on dressing room floors.

3. Where rubber or impervious mats are used they must be kept clean and dry between uses.

Sec. 109

Furnishings.

1. All furniture must be easily cleanable. Locker compartments, furniture, partitions and other appurtenances in dressing rooms must be installed to permit thorough cleaning and flushing of the floor.

2. All partitions between portions of the dressing room areas, screen partitions, shower, toilet and dressing room booths must be of durable material not subject to damage by water and must be designed so that a water way is provided between the partitions and floor to permit thorough cleaning of the floor area with hoses and brooms or similar equipment.

3. Mirrors of unbreakable material must be provided over each lavatory, and toilet paper holders, with toilet paper, must be provided at each water closet combination.

4. All light fixtures must be adequately shielded to prevent injury to bathers.

5. Lockers must be set either on solid masonry bases 4 inches (10.16 centimeters) high or on legs elevating the bottom locker at least 10 inches (25.4 centimeters) above the floor and have louvers for ventilation.

6. Shower stall floors must be non-slip, impervious surface without any abrasion hazard.

7. Glass bath or glass shower doors must use safety glass.

Sec. 110

Steps not permitted

1. No difference in elevation, requiring steps, may exist in the interior of male or female dressing areas.

2. No steps are permitted between the bathhouse and the adjoining deck areas. If it is necessary that the bathhouse floor be at a different elevation than the deck, ramps must be provided at the access doors. Where ramps are used between the bathhouse and the deck, the slope may not exceed 3 inches per foot (7.62 centimeters per 30.48 centimeters) or 25 percent and must be positively slip-resistant.

Plumbing, Water Supply and Wastewater Disposal

Sec. 111

Connections for supply and disposal of water.

1. No direct mechanical connection (cross connection) with a domestic water supply may be made to a public bathing or swimming facility, a chlorinator or the system of piping for the facility, unless it is protected against back-flow in a manner approved by the health authority. All spas must be equipped with acceptable provisions, such as over fall fill-spouts, surge tanks or receptors, for adding makeup water.

2. Water used to fill any spa must be supplied by an overfall fill-spout providing an air-gap of not less than 6 inches (15.24 centimeters) between the flood level at the spa and the lowest point of the fill-spout, or an overfall supply to a surge tank or receptor wherein the water will freely overflow at deck level or the top of the surge tank or receptor before coming in contact with the water supply outlet.

3. Sanitary sewage from the bathhouse or similar facilities must discharge into a sewage system approved by the health authority.

Sec. 112

Hose bibs. At least one hose bib must be provided within 50 feet (15.24 meters) of the spa and in additional locations where necessary to enable thorough hosing down of all walks, floors and appurtenances. They must be located so they do not constitute a safety hazard.

Sec. 113

Disposal of wastewater.

1. Provision must be made to dispose of material cleaned from filters and of backwash water in a manner that will not create a nuisance. The backwash water must be disposed of in accordance with applicable local law and regulation.

2. If drainage to a sanitary sewer or storm sewer is permitted, an air gap must be provided which will positively preclude against surge or back-flow introducing contaminated water into the spa or the recirculation system.

3. Diatomaceous earth must be disposed of so that no solids appear in the wastewater. This may be done by using a separation tank, receiving chamber, or any other method approved by the health authority.

Sec. 114

Connections for supply and disposal of water.

1. No direct mechanical connection (cross connection) with a domestic water supply may be made to a public bathing or swimming facility, a chlorinator or the system of piping for the facility, unless it is protected against back-flow in a manner approved by the health authority. All spas must be equipped with acceptable provisions, such as over fall fill-spouts, surge tanks or receptors, for adding makeup water.

2. Water used to fill any spa must be supplied by an overfall fill-spout providing an air-gap of not less than 6 inches (15.24 centimeters) between the flood level at the spa and the lowest point of the fill-spout, or an overfall supply to a surge tank or receptor wherein the water will freely overflow at deck level or the top of the surge tank or receptor before coming in contact with the water supply outlet.

3. Sanitary sewage from the bathhouse or similar facilities must discharge into a sewage system approved by the health authority.

Sec. 115

Water piping.

1. The water velocity in the piping of a public bathing or swimming facility must not exceed 10 feet (3.04 meters) per second for discharge piping, except that the velocity for copper pipe must not exceed 6 feet (1.82 meters) per second. Suction velocity for piping must not exceed 6 feet (1.82 meters) per second for both. If velocities exceed these rates, summary calculations must be provided to show that rated flows are possible with the pump and piping provided.

2. Piping must be of a nontoxic material, resistant to corrosion and able to withstand operating pressures. All plastic piping and fittings used in the recirculation system must be imprinted with the name of the manufacturer and the potable water mark of the National Sanitation Foundation, or its equivalent, and must:

(a) Comply with all applicable requirements established by the NSF International.

(b) In the absence of an applicable standard, be approved by the health authority.

3. Pipes must be clearly identified by color code or tags.

4. All piping must be supported on piers or other substantial means to prevent possible settlement which will either provide dirt traps or air pockets.

5. All pressure and suction lines must have a uniform slope in one direction of not less than 3 inches per 100 feet (7.63 centimeters per 30.48 meters) or 0.25 percent. Gravity waste lines around any spa, 6 inches (15.24 centimeters) or smaller must have a minimum slope of one-quarter of an inch per foot (6.4 millimeters per 30.48 centimeters) or 2 percent. Lines larger than 6 inches (15.24 centimeters) and all outfall main lines must be designed with a size of pipe and slope to carry freely the maximum flows.

6. Piping around the spa which is subject to damage by freezing must be sloped for adequate drainage and supported at sufficiently close intervals so that sagging between supports will not trap water. Provisions must be made for expansion and contraction of pipes.

Sec. 116

Inlets.

1. Spa inlets must be rounded and smooth and installed not less than 18 inches (45.72 centimeters) below the normal operating level and located to produce a uniform recirculation, without the existence of dead spots. In the case of a shallow spa, an exception to this requirement may be granted by the health authority if inlets cannot be installed at the depth otherwise required.

2. Inlets must not extend from the spa wall or floor so as to create a hazard.

3. Each set of stairs must have an inlet positioned to provide good recirculation over the stairs.

4. If wall inlets are used, the spacing between adjacent inlets must not exceed 15 feet. The spacing may be varied if the number of inlets is not reduced below a number equal to one-fifteenth of the spa's perimeter in feet.

5. Any spa having a width greater than 30 feet (9.14 meters) must have floor inlets located to provide general recirculation and not direct flow to floor drains. If floor inlets are used, the spacing between adjacent inlets must not exceed 15 feet and the spacing between inlets and the adjacent wall must not exceed 10 feet (3.04 meters).

6. A combination of wall and floor inlets may be used if the design can be shown to produce a uniform recirculation of water to maintain a uniform residual of disinfectant throughout the spa.

7. Spas greater than 30 feet (9.14 meters) in width must have floor inlets which comply with the spacing requirements of subsection 4 or with a combination of wall and floor inlets which comply with the spacing requirements of subsections 3 and 4.

8. Grates must be designed so as to prevent entrapment of fingers.

9. All recirculation inlet fittings must be adjustable for rate of flow. Wall inlet fittings must be directional.

10. Inlet fittings must have tamper-proof screws that cannot be removed except with tools. Grates, anti-vortex plates and inlet fittings must be in place whenever the spa is in use.

11. Direct potable water spa inlets must:

(a) Be over-the-rim fill spouts with air gaps located under a diving board or beside grab rails; or

(b) Be through-the-wall fill lines located above the water level and equipped with an appropriate back-flow prevention device installed; or

(c) Be directly connected to the recirculation water supply and equipped with reduced pressure device installed on the potable water supply adjacent to the connection with the spa recirculation water.

Sec. 117

Drains.

1. All spas must be provided with a main drain, with an anti-vortex design at the lowest point of the floor of the spa to permit the spa to be completely and easily drained.

2. The distance of each main drain from:

(a) The nearest main drain must not exceed 20 feet (6.09 meters) on the centers.

(b) Any side wall must not exceed 15 feet (4.57 meters).

3. The sump of each main drain must be covered with a suitable protective cover or grate securely fastened in a way that it cannot be removed without the use of tools. The openings in the grate must not exceed 1/2 inch (1.27 centimeters) in diameter. Except as otherwise provided in this subsection, the velocity of water through the grate must not exceed 1.5 feet (0.457 meters) per second. If only one main drain in the spa is connected to a pump:

(a) The drain must be of anti-vortex design and meet the requirements of the "Virginia Graeme Baker Pool and Spa Safety Act".

(b) The velocity of water through the grate must not exceed 6 feet per second.

(c) A hydro-jet booster system that includes no fewer than two main drains separated by not less than 4 feet (1.21 meters) and connected to pipes of equal diameter. The system must not permit either drain to be cut off from the suction line. Drains for hydro-jet booster systems must have anti-vortex covers as approved by the health authority.

4. The recirculation system must be designed to guard against outlet entrapment. Any of the following means may be employed:

(a) The system must include no fewer than two main drains, separated by not less than 4 feet (1.22 meters), and connected to pipes of equal diameter. The system must not permit any cutoff of either drain from the suction line.

(b) The system must include one or more anti-vortex outlet drains. Any drain installed at a depth of 4 1/2 feet (1.37 meters) or less must not present a tripping hazard to the bather.

(c) Any other system, approved by the health authority, that guards against outlet entrapment and comply with the requirement of the "Virginia Graeme Baker Pool and Spa Safety Act".

5. Valves or pumps used for draining spas must be sized to prevent the surcharging of the receiving drain. Multiport valves must:

(a) Comply with all applicable requirements of NSF International.

(b) In the absence of an applicable standard, be approved by the health authority.

6. The main drains must be capable of taking at least 50 percent of the circulated flow.

Sec. 118

Drains: "Virginia Graeme Baker Pool and Spa Safety Act" compliance.

1. Each bathing place must have a minimum of two outlets . All spa outlets must meet the following design criteria:

(a) The grates or covers of all submerged outlets in spa must conform to the standards of ANSI/ASME A112.19.8a-2008.

(b) The outlets must be constructed so that if one of the outlets is completely obstructed, the remaining outlets and related piping will be capable of handling 100 percent of the maximum design recirculation flow.

(c) All spa outlets must connect to pipes of equal diameter.

(d) The outlet system must not allow any outlet to be cut out of the suction line by a valve or other means.

(e) At least one of the recirculation outlets must be located at the deepest point of the spa and must be piped to permit the spa to be completely and easily emptied.

(f) The center of the outlet covers or grates of multiple main drain outlets must not be spaced more than 30 feet (9.14 meters) apart nor spaced closer than 3 feet (0.914 meters) apart.

(g) Multiple pumps may use the same outlets only if the outlets are sized to accommodate 100 percent of the total combined design flow from all pumps and only if the flow characteristics of the system meet the requirements of this section.

(h) No feature or recirculation pump must be connected to less than two outlets unless connected to an anti-entrapment outlet system that the operator demonstrates to the health authority as being effective in preventing entrapment.

(i) There must be one main drain outlet for each 30 feet (9.14 meters) of spa width. The centers of the outlet covers or grates of any outermost main drain outlets must be located within 15 feet (4.57 meters) of a side wall.

(j) Devices or methods used for draining spas must prevent overcharging the sanitary sewer.

(k) No operator shall allow the use of a spas with outlet grates or covers that are broken, damaged, missing, or not securely fastened.

2. Notwithstanding Section 3, all public spas must comply with the remaining sections of these regulations. The spa operator shall not install, allow the installation of, or operate a spa with a drain, drain cover, or drain grate in a position or an application that conflicts with any of the following mandatory markings on the drain cover or grate under the standard required in in this section:

(a) Whether the drain is for single or multiple drain use;

(b) The maximum flow through the drain cover; and

(c) Whether the drain may be installed on a wall or a floor

3. The spa operator shall not install, allow the installation of, or operate a spa with a drain cover or drain grate unless it is over or in front of:

(1) The sump that is recommended by the drain cover or grate manufacturer;

(2) A sump specifically designed for that drain by a professional engineer who is registered in this State, an architect who is registered in this State; or

(3) A sump that meets ASME standards.

4. Notwithstanding Section 3, all public spas must comply with this section. The spa owner shall retrofit by December 31, 2010 each spas recirculation system on existing spas that do not meet the requirements of this section. The owner or operator shall meet the retrofit requirements of this subsection by any of the following means:

(a) Meet the requirements of this section and install a safety vacuum release system which ceases operation of the pump, reverses the recirculation flow, or otherwise provides a vacuum release at a suction outlet when it detects a blockage; that has been tested by an independent third party; and that conforms to ASME or ASTM International standards;

(b) To ensure proper operation, the spa operator shall inspect and test the vacuum release system at least once a week but no less often than established by the manufacturer. The spa operator shall test the vacuum release system in a manner specified by the manufacturer. The spa operator shall log all inspections, tests and maintenance and retain the records for a minimum of two years for review by the health authority upon request.

(c) The vacuum release system must include a notification system that alerts patrons and the spa operator when the system has inactivated the recirculation system. The spa operator shall submit to the health authority for approval the design of the notification systems before installation. The system must activate a continuous clearly audible alarm that can be heard in all areas of the spa or a continuous visible alarm that can be seen in all areas of the spa. An easily readable sign must be posted next to the sound or visible alarm source. The sign must state, "DO NOT USE THE SPA IF THIS ALARM IS ACTIVATED." and provide the phone number of the spa operator.

(d) Install an outlet system that includes no fewer than two suction outlets separated by no less than 3 feet (0.91) meters, on the horizontal plane as measured from the centers of the drain covers or grates or located on two different planes and connected to pipes of equal diameter. The outlet system must meet the requirements of these regulations.;

(e) Meet the requirements of these regulations regarding the installing (or having an existing) gravity drain system where, rather than drawing directly from the drain, the pump draws from a surge or collector tank wherein the contained water surface is maintained at atmospheric pressure;

(f) Install a drain of a size and shape that a human body cannot sufficiently block to create a suction entrapment hazard that meets the requirements of these regulations; or

(g) Any other system determined by the federal Consumer Products Safety Commission to be equally effective as, or better than, the systems described in the "Virginia Graeme Baker Pool and Spa Safety Act" at preventing or eliminating the risk of injury or death associated with spa drainage systems.

Water quality and sampling

Sec. 119

Water quality.

1. Water entering a public spa for the first time must be potable and meet the bacteriological standards set forth in the primary drinking water standards adopted pursuant to NRS 445A.855, except the health authority may approve the use of water from natural sources including saline water. Fresh water must be added to spas that depend upon the flow of a stream, lake, well or other source which has been diverted to flow in and out of the spa, at a rate of not less than 1,000 gallons (3,785.41 liters) per hour for each 20 bathers using the spa during each hour.

2. All public spas must have a uniform flow-through of water in the volume and quality described in subsection 1, or recirculation and filtration equipment provided for water purification in accordance with the requirements of these regulations.

3. The equipment must provide water which meets the following standards:

(a) The water must be continuously disinfected by a chemical or method which imparts an easily measured, freely available residual effect. Except as otherwise provided, adequate disinfection must be accomplished by one of the following:

(1) Normal chlorination of 1.0 to 5.0 ppm chlorine at pH 7.0 to 8.0;

(2) Chlorinated cyanurate chlorination of 1.0 to 5.0 ppm at pH 7.2 to 8.0; or

(3) Normal bromination of 3.0 to 5.0 ppm at pH 7.0 to 8.0.

(b) The health authority may accept other disinfecting materials or methods if they have been adequately demonstrated to provide a satisfactory residual effect which is easily measured, and otherwise to be equally as effective under conditions of use as the chlorine concentration required in this section.

(c) The maximum permissible concentration of cyanuric acid is 100 ppm.

4. The chemical quality of water used in the facility must not cause irritation to the eyes or skin of the bathers, or have other objectionable physiological effects on bathers.

5. The water must have sufficient clarity at all times so that the pattern of the main drain in any spa is clearly visible from the walk at the deep end. Failure to meet this requirement constitutes a ground for the immediate closing of the facility.

Sec. 120

Water sampling.

1. Facilities maintaining approved operating records and having dependable disinfection and filtration are not required to submit bacteriological samples for testing.

2. If sampling is required, not more than 15 percent of the samples must either:

(a) Contain more than 200 bacteria per milliliter, as determined by the standard (35°C) agar plate count; or

(b) Show positive test (confirmed test) for coliform organisms in any of the five 10 milliliter portions of a sample or more than 1.0 coliform organisms per 50 milliliter if the membrane filter test is used.

3. All samples must be collected, dechlorinated and examined in accordance with the procedures outlined in the latest edition of Standard Methods for the Examination of Water and Wastewater (APHA).

Water Recirculation

Sec. 121

System for recirculation.

1. Except as otherwise provided in these regulations a recirculation system, consisting of pumps, filters, water conditioning, disinfection equipment and other accessory equipment, must be provided at each public spa or spa facility which will recirculate, clarify and disinfect the volume of water used in the facility every 30 minutes or less and must be capable of returning the spa water to a turbidity of 1.0 NTU's at least once during the 4 hours following the use of the spa by the largest number of bathers which its size permits..

2. The patterns of recirculation developed in any spa must be partial flow through the main drain and the remainder through the overflow gutters or skimmers.

3. The recirculation system must include a vacuum gauge located on or immediately before the pump on the suction side of the system and a pressure gauge immediately after the pump on the pressure side of the system.

4. The recirculation system must be operated at all times the facility is open for use and for not less than 3 hours after the facility is closed. If the system is shut down for periodic maintenance and repair, no person who is not an employee of the facility may be allowed into the facility.

5. In climates in which freezing temperatures can be expected, the spa shell and appurtenances, piping, filter system, pump and motor, and other components must be designed and constructed to be protected from damage from freezing.

6. A spa which does not have a water recirculation system for purification may be used by only one person, after which the spa must be drained and the walls scrubbed and disinfected.

7. If time clocks are used to govern the operation of the recirculation system, they must be:

(a) Used to govern the operation of any equipment, such as chemical disinfectant feeders, slurry feeders or heaters, dependent upon the flow of water within the system;

(b) Reset immediately after any interruption in power and

(c) At least one complete water turn over is required before the next period of operation.

8. Equipment must be provided with installation and operation instructions by those who furnish the equipment.

Sec. 122

Pumps and motors.

1. A pump and motor unit must be provided for the recirculation of water which has been selected for performance and will meet the conditions of quantity required for filtering and cleaning the filters with the total dynamic head developed by the complete system.

2. The requirements for filtration must be based upon the maximum head loss developed immediately before washing the filters.

3. With all pressure filter systems, a suitable removable strainer or screen must be provided before circulation pumps to remove debris, hair, lint and other solids. Water entering the pump must first pass through the screen.

4. Pumps must be designed to perform the functions for which they are intended. Units must be accessible for inspection and service. Replacement parts must fit with existing parts in the pump without the need for re-drilling mounting holes or otherwise altering the replacement part of the pump.

5. The pump and component parts must be designed and constructed to operate safely.

6. Proper direction of rotation for the pump must be clearly indicated by an arrow on the pump data plate, on a separate plate attached to the pump, or cast into the pump itself.

7. The motor must be non-overloading in continuous operation for filtration under all conditions, but may be overloaded within the service factor for conditions of backwash and for emptying any spa.

8. A pump performance curve for the unit to be installed must be provided with the plans submitted for approval.

9. A pump used in a recirculation system must:

(a) Comply with all applicable requirements of the NSF International.

(b) In the absence of an applicable standard, be approved by the health authority.

10. All motors must have as a minimum an open drip-proof enclosure, as defined by National Electrical Manufacturers' Association standards, and be constructed electrically and

mechanically so they will perform satisfactorily and safely under the conditions of load and environment normally encountered in spa installations.

11. Motors must be capable of operating pumps under full load, and must have as a minimum a 1.15 service factor. If the maximum service factor of the motor is exceeded at full voltage, the manufacturer shall indicate this on the pump curve.

12. All motors must have thermal overload protection and locked rotor protection, or equivalent, built in or in the line starter, to provide locked rotor and running protection.

13. The motor frame must include adequate provisions for proper grounding.

14. Hydrotherapy pumps and piping systems must be independent and must not be interconnected with the filtration plumbing system.

Sec. 123

Valves.

1. When a pump is installed below the overflow rim of the spa, valves must be installed on permanently connected suction and discharge lines and located in an accessible place outside the walls of the spa.

2. All valves must be located where they will be readily and easily accessible for maintenance and removal.

3. Multiport valves must be designated by the NSF International as complying with all applicable requirements and be approved by the health authority.

Sec. 124

Overflow systems.

1. An overflow system must be provided unless the spa does not have a water recirculation system and the procedures required by these regulations.

2. The overflow system must be designed and constructed so that the water level of the spa is maintained at the operating level of the rim or weir device.

Sec. 125

Skimmers.

1. When surface skimmers are used as the sole overflow system, at least one surface skimmer must be provided for each 100 square feet (9.03 square meters), or fraction thereof, of the surface area of the water. When two or more skimmers are used in a spa, they must be located to maintain effective skimming action over the entire surface area of the water.

2. The total capacity of all skimmers must be at least two-thirds of the required recirculation flow.

3. In outdoor spas, one skimmer must be placed at a point away from the direction from which prevailing winds blow, if the surface area of the water is greater than 100 square feet (9.03 square meters).

4. Skimmers must comply with all applicable requirements of NSF International or, in the absence of any current or applicable standards, be approved by the health authority.

5. All skimming devices must be equipped with an approved equalizer valve and equalizer line with an inside diameter of at least 2 inches (5.08 centimeters) installed at least 12 inches (30.48 centimeters) below the normal operating level of the water. The inlet to the equalizer line or lines must be designed to prevent the creation of a holding force whenever the body or limb of a bather comes into direct contact with the inlet. The inlet must be protected by a grill or shroud that will prevent a bather or any limb of a bather from entering the inlet.

Sec. 126

Filters.

1. Any filter used in a spa must meet NSF International requirements or in the absence of applicable requirements, be approved by the health authority.

2. Separate filter, recirculation and chlorination systems must be provided for each spa and must be independent of any adjacent swimming pool or spa.

3. The filter must be provided with influent pressure gauge.

4. The filter must be provided with a means for draining all filter units and piping, so that all parts of the system may be drained to prevent damage from freezing where so required.

5. A means must be provided to permit release of air which enters the filter tank. This may be automatic, manual, or, when up-flow design is used, air must be expelled through the filter tank. Any filters incorporating an automatic internal air release as the principal means of air release must have lids which provide a slow and safe release of pressure as a part of its design.

6. Filter elements which require servicing must be accessible and available for inspection and repair.

7. Filters must be designed so that filtration surfaces can be easily inspected and serviced.

8. Separation tanks or settling sump are required with diatomaceous earth filters. Separation tanks must:

(a) Be provided with a manual means of air release or a lid which provides a slow and safe release of pressures and

(b) Have a precautionary statement affixed warning the user that the air release must be opened before starting the recirculation pump.

9. Piping furnished with the filter must be of suitable material capable of withstanding three times the working pressure. The suction piping must not collapse when there is a complete shutoff of flow on the suction side of the pump.

Water Heating

Sec. 127

Heating units. If a spa is heated, the heating unit must be isolated or installed in a manner which ensures that bathers will not be injured because of its placement. The heating unit must be equipped with a thermostat which controls the temperature of the water. All of the parts of the heating unit must be easy to remove for cleaning.

1. Fired water heaters installed after the effective date of these rules, used exclusively for heating water for spas are considered spa boilers and are exempt from the requirements of Boiler and Pressure Vessel Law if:

(a) Units are equipped with a flow switch or pressure switch set at a minimum of 1-1/2 psi;

(b) No intervening stop valves are installed on the discharge side of the unit;

(c) Discharge piping is not reduced from the engineering sizing of the fired heater;

(d) All units are equipped with an ASME approved pressure and temperature relieving device set at 50 psi;

(e) The unit has a maximum of 10 gallons (37.85 liters) capacity contained within the unit; and

(f) The burner is wired in series with the recirculation pump.

2. Where fuel burning spa heaters are provided they must:

(a) Be situated so that the pilot light, if present, is readily accessible;

(b) Be provided with an adequate supply of combustion air; and

(c) Be equipped with metal or chlorinated polyvinyl chloride pipe (CPVC) for a minimum of 18 inches (45.74 centimeters) upstream and downstream of the heating equipment. However, where manufacturer's recommended installation allows shorter lengths of CPVC, installation according to manufacturer's recommendations is allowed in lieu of 18 (45.74 centimeters) inches of CPVC if documentation of manufacturer's recommendations is provided.

3. Where electrical heaters are provided, they must be installed in accordance with applicable state laws. When required by Underwriters Laboratory, metallic current collectors must be installed on the inlet and outlet of the heater. The current collectors must be grounded and must be at least 5 pipe size diameters in length.

Sec. 128

Solar Heating Installations. Solar heating systems must approved in writing by the health authority before they are installed.

Water Treatment

Sec. 129

Disinfectants: Approval of use of chemical feeders and other disinfecting materials and methods.

1. A public bathing or swimming facility must be equipped with a chlorinator, brominator hypochlorinator or other disinfectant feeder which can effectively remove or neutralize organic matter in water. Except as otherwise provided in subsections 2 and 3, chemical feeders and process equipment, other than compressed chlorine gas feeders, must meet NSF International requirements.

2. The health authority may approve other feeders if the operator of the facility demonstrates to the health authority that the required residual concentrations of disinfectant can be maintained using the feeder.

3. The health authority may approve other disinfecting materials or methods if the operator of the facility demonstrates to the satisfaction of the health authority that they provide a satisfactory residual effect which is easily measured and are as effective at disinfecting as the use of the chlorine concentrations required in these regulations.

4. Disinfectant feeders must be installed to ensure that the flow of the chemical disinfectant will stop immediately if there is an interruption in the flow of water to the spa or through the disinfection system.

Sec. 130

Disinfectants: Use of chlorine gas. An owner of a public spa or spa facility who obtained his operating permit on or after January 16, 1996, may not use compressed chlorine gas to sanitize or disinfect the facility. An owner of a public bathing or swimming facility who obtained his operating permit before January 16, 1996, may use compressed chlorine gas to sanitize the facility if the following features are provided:

1. The cylinders of chlorine, the scale required by subsection 15 and the chlorinator must be kept above grade in a separate, well-ventilated, reasonably gas tight and corrosion-resistant enclosure.

2. The enclosure must be provided with vents near the floor which terminate outdoors through an airtight duct at a point where chlorine gas will not sink into spaces below the surface of the ground. Mechanical ventilation must be used. The exhaust system must be capable of providing not less than two air changes per hour in the enclosure and comply with applicable building and fire codes.

3. The door to the enclosure must not open into the spa enclosure and must open outward. All enclosures must be equipped with a quick exit door push bar. The enclosure must be equipped with a key locked latch, with the key lock located on the outside of the enclosure. The enclosure must be locked at all times except when personnel are inside.

4. An observation window must be provided in the wall or door of the enclosure that provides a good view of the inside of the enclosure and is not less than 18 square inches (116.14 square centimeters) in size. Artificial illumination of at least 20 foot-candles must be provided to permit the observation and maintenance of the equipment in the enclosure.

5. Switches for the operation of the exhaust fan and the artificial illumination must be located on the outside of the enclosure and near the door.

6. The floor area of the enclosure must be of adequate size to house the chlorinator.

7. The chlorinator must be of rugged design, capable of withstanding wear without developing leaks.

8. Chlorine cylinders must be anchored to prevent their falling over. A valve stem wrench or valve handle must be maintained on the chlorine cylinder so the supply of gas can be shut off quickly in the case of an emergency. The valve protection hood must be kept in place except when the cylinder is in operation.

9. The chlorine feeding device must be vacuum operated and designed so that during accidents or interruptions of the water supply, or break in the system, the feeder positively and automatically shuts off the supply of chlorine gas and vents any leaking gas outside the enclosure at a safe point of discharge. The enclosure must be equipped with an acceptable and properly functioning device, with an audible alarm, to detect chlorine leakage. A leakage test kit consisting of ammonia water and a sponge swab must also be provided.

10. The chlorinator must be a solution feed type, capable of delivering chlorine at its maximum rate without releasing chlorine gas into the equipment room. Pressure vacuum relief vents must discharge to the outside atmosphere in a safe area.

11. The temperature of the chlorine metering equipment must not fall below 55°F (12.8°C). A means to keep the temperature above that level must be provided and used.

12. The chlorinators must be designed to prevent the back-flow of water into the chlorine solution container.

13. A gas mask designed for use in a chlorine atmosphere and of a type approved by the appropriate federal agency must be located outside of the enclosure in a closed, unlocked cabinet. A replacement canister for use with the mask and a record book for recording any use of the mask must also be kept in the cabinet.

14. A placard must be posted on the outside of the enclosure that describes the first-aid measures for treating victims of chlorine exposure and includes the telephone number of the supplier of chlorine gas.

15. A scale or other suitable device must be provided so that the amount of chlorine gas contained in the cylinder can be determined.

16. A sign or placard stating "CAUTION - CHLORINE GAS" must be placed on the door to the chlorinator room in a location where it is readily visible to any person approaching the door.

17. Chlorine or chlorination equipment must not be located in a building which houses sleeping guests.

18. Facilities that use gas chlorination must employ personnel trained to the satisfaction of the health authority in the safe handling of chlorine and in the operation and maintenance of chlorination equipment. These personnel must be available at all times that the facility is open to ensure the safety of employees and visitors.

19. Gas chlorine cylinders must not be stored in areas where they are exposed to direct sunlight or are readily accessible to unauthorized persons or in buildings where sleeping guests are housed.

Sec. 131

Disinfectants: Handling; storage; toxicity.

1. The hand dosing of disinfectant or the introduction of disinfectant at a public bathing or swimming facility by means other than through a chemical feeder which has been approved by the health authority is not permitted except for shock treatment, super-chlorination, super-bromination or for bringing the residual of the disinfectant up to required levels when the facility is closed. No swimmers may use the facility until the residual of the disinfectant has dropped to the level required by these regulations.

2. Adequate facilities for storing chemicals must be provided at all public bathing or swimming facilities. Chemicals must be stored in accordance with the instructions of the manufacturer or, in the absence of instructions, as directed by the health authority.

3. Chemicals used in controlling the quality of water must be demonstrated to impart no toxic properties to the water. Chemicals used for the control of algae must be approved for that use by the health authority.

4. If the water in a facility cannot be maintained at a pH of 7.0 to 8.0, equipment for the feeding of chemicals to maintain the required pH must be provided. Equipment and piping used to apply chemicals to the water must be of size, design and material that they may be cleaned and be free from clogging. All material used for such equipment and piping must be resistant to the action of the chemicals to be used in them.

Sec. 132

Water testing equipment.

1. Every public bathing or swimming facility must have an approved test kit for the determination of pH, the determination of pH, free available chlorine, total available chlorine if chlorine is used, bromine or other chemical disinfectant residuals, cyanuric acid (if used), total alkalinity, calcium hardness, and copper and silver if a copper or copper/silver ionization unit has been installed.

2. The use of orthotolodine for determining the level of residual disinfectant is not approved. The use of the DPD method for determining the level of residual chlorine or bromine is approved.

Operation and Management

Sec. 133

Operating permits.

1. No public bathing or swimming facility or natural bathing place may operate unless the operator has a current operating permit from the health authority.

2. The health authority will exercise the right to close facilities and bathing places not operating in conformity with those regulations.

3. The permit must be posted in a conspicuous place at or near the office of each facility or bathing place.

Sec. 134

Fees for permits and review of plans.

1. The Health Division shall charge and collect $332 for each annual permit to operate a public spa, except in areas where the laws and regulations governing public spas are administered by local health authorities.

2. The Health Division shall charge and collect $370 for reviewing plans for a new public spa, except in areas where the laws and regulations governing public spas are administered by local health authorities.

3. The Health Division shall charge and collect $285 for reviewing plans for a remodeled public spa which has a permit, except in areas where the laws and regulations governing public spas are administered by local health authorities.

Sec. 135

Records.

1. A written record of all data pertaining to the operation and sanitation of each public bathing or swimming facility and natural bathing place must be maintained for at least two operating seasons. The records must be kept available to the health authority at all times.

2. The operator shall initial the record and the record must include, as appropriate for the facility or bathing place:

(a) The amounts and types of various chemicals used daily;

(b) The approximate amount of fresh water added daily;

(c) The disinfectant residuals and pH measured at least upon opening of the facility and at a frequency to insure the they meet the requirements of these regulations;

(d) The results of chemical and bacteriological tests;

(e) The time and date of emptying and cleaning the spa or back-washing filters;

(f) Recirculation operating time;

(g) The recirculation rates recorded at least once a day;

(h) The date and time of any chemical "shock treatments";

(i) The use of clarifiers or other agents; and

(j) Any other information which the health authority may require.

3. If oxidation reduction potential technology is used in accordance with these regulations, the operator may reduce water testing to once per day minimum.

Sec. 136

Heating and temperature requirements.

1. Water temperature in a spa or therapy pool must not be artificially heated above 104°F (40.0°C).

2. Signs must be posted which state that:

EXTENDED EXPOSURE TO HOT WATER OR VAPORS MAY BE DETRIMENTAL TO THE HEALTH OF ELDERLY PERSONS AND PERSONS WITH HEART CONDITIONS, DIABETES, OR HIGH OR LOW BLOOD PRESSURE.

Sec. 137

Emergency Plans. Every permitted facility must develop emergency plans including but not limited to:

(a) Injuries, bathers in trouble, drownings;

(b) Equipment breakdowns;

(c) Chemical release;

(d) Severe Weather;

(e) Fire; and

(f) Threats to personnel, patrons, or the facility.

(g) Water contamination.

Sec. 138

Safety requirements.

1. The spa must be free of protrusions, extensions, means of entanglement or other obstructions which might cause submerged entrapment of, or injury to, a bather.

2. Except as otherwise provided in these regulations, no person may use a spa alone. No children 12 years of age or younger who are not supervised by an adult may use a spa.

3. A sign with at least 4-inch (10.16 centimeters) letters on a contrasting background must be posted near the spa which indicates that children 12 years of age or younger must be supervised by an adult and that the maximum recommended time for children to use the spa is 10 minutes.

4. The spa must not be operated during severe weather conditions. (e.g., electrical storms)

Sec. 139

Instructions on operation and maintenance of facilities and equipment.

1. Upon the completion of any public spa, the owner and his operators must be given complete written instructions by the contractor in the operation of the facility and all of its equipment, in the maintenance of the water used in the facility, and specifically in the details of maintenance of the equipment.

2. All valves must be permanently tagged and a valve operating schedule must be provided for every operation.

3. The public spa owner and his operators shall develop an operation, maintenance and sanitation plan for the spa that will assure that the spa water meets the sanitation and quality standards required by these regulations.

4. The plan must be in writing and available for inspection by the health authority. At a minimum the plan must include the frequency of measurements of disinfectant residuals, pH and water temperature that will be taken. The plan must also specify who is responsible to take and record the measurements.

Sec. 140

Supervision and maintenance of facilities

1. Every public spa including those owned by a homeowner's associations, those located by apartment buildings or hotels must be maintained under the supervision of a person who is responsible for the sanitation and safety of the facility and for the maintenance of its equipment and records.

2. The operator must knowledgeable about public spas and demonstrate to the health authority that he is familiar with the function, operation and maintenance of the equipment in the facility and is capable of maintaining the water chemistry within the required limits.

Sec. 141

First aid.

1. Each spa or spa facility must be equipped with a first aid kit and a blood borne pathogen clean-up kit as defined in these regulations which must be kept filled and ready for use at a convenient place near the spa.

2. The person who is in charge of the spa must have completed a course in standard first aid which is acceptable to the health authority.

3. Every public spa must have two or more blankets reserved for emergency use and a "Blood-borne pathogen cleanup kit".

Sec. 142

Posting information on artificial respiration and emergency services.

1. Placards directing behavior of bathers must be prominently posted in locker rooms, offices, showers, toilets or elsewhere about the spa enclosure.

2. Except as otherwise provided in this section, the location and telephone number of the nearest ambulance, hospital, fire or police rescue service, physician and facility operator must be kept similarly posted together with instructions that, in case of need, manual or mouth-to-mouth artificial respiration should be started immediately and continued until a physician arrives or mechanical resuscitators are applied.

3. At least one telephone must be located in the vicinity of the spa enclosure, but outside of the enclosure.

4. Emergency telephone numbers must be provided in a form that can be taken to a telephone.

5. In lieu of the emergency telephone numbers described in this section, the number for the emergency 911 service may be posted if that emergency service is available in the geographical area of the public bathing or swimming facility.

Sec. 143

Bathers: Requirements; prohibitions.

1. All bathers at a public spa shall take a cleansing shower before entering or reentering the spa enclosure.

2. Persons not dressed for bathing must not be allowed in the spa.

3. Persons suffering from colds, fever, coughs, sore, including open blisters, cuts, or other lesions or inflamed eyes, any skin disease or any communicable disease or open sores or bandages must be excluded from the public spa.

4. Spitting, soiling, or in any way contaminating the water, walkways, or dressing room floors in the facility is prohibited.

5. Except as otherwise provided in these regulations, eating, drinking and smoking within the spa enclosure are prohibited.

6. Bringing or throwing into the water or onto walkways any objects that may in any way carry contamination, endanger safety of bathers or produce unsightliness must be prohibited.

7. No boisterous activity or horse play may be permitted in the water, on the walkways, floors or platforms, or in the dressing rooms or showers.

8. Persons under the influence of liquor or drugs must not be permitted in or about the facility.

9. Public spas or facilities are for use of people only; animals must be excluded from the spa and enclosure.

10. A person who has or has had diarrhea within the last two weeks caused by an unknown source or from any communicable or fecal-borne disease may not enter any public spa.

11. Any child under three years old, any child not toilet trained, and anyone who lacks control of defecation shall wear a water resistant swim diaper and waterproof swimwear. Swim

diapers and waterproof swimwear must have waist and leg openings fitted such that they are in contact with the waist or leg around the entire circumference.

12. Diapers must be changed only in restrooms or changing stations and must not be changed at spa side. The person or persons who change the diaper must wash their hands thoroughly with soap before returning to the spa. The diapered person must undergo a cleansing shower before returning to the spa.

13. Since high temperature, the presence of excess oil on the skin and difficulties of maintaining a chlorine residual enhance the possibility of microbial growth and disease transmission, no person may be allowed to enter a spa which maintains less than 1.0 ppm (1.0 mg/l) of free chlorine.

Sec. 144

Bathers: Failure to comply with rules and regulations. Any person who refuses to comply with any regulation governing a public spa or spa facility or any rule of that facility must be excluded from the premises, and the owner or operator shall promptly bring any action which may be necessary to prosecute or eject from the premises any such person.

Sec. 145

Capacity.

1. The number of persons allowed to enter a spa must be limited to a number which allows 10 square feet (0.93 square meters) of water surface area for each person using the spa.

2. A sign must be posted within the spa area which states the maximum number of people allowed in the spa at one time.

3. The number must be based on the area of the facility or on the sanitary facilities which are provided. The most restrictive regulation applies.

4. The health authority may make additional allowance in cases of facilities with extensive deck areas used by patrons for lounging or sunbathing.

5. The owner of the facility is responsible for seeing that the maximum capacity is not exceeded.

Sec. 146

Fecal Incidents: Fecal incidents must be reported to the health authority at the time the incident is noticed. The spa will be closed then drained and all surfaces disinfected before the public is allowed to enter.

Sec. 147

Restrictions on animals. Spa owners shall prevent animal access to a spa, except service animals in the deck area accompanying users or spectators requiring them.

Sec. 148

Visitor and spectator areas; food and drink.

1. Spaces used by visitors and spectators must be separated from spaces used by bathers.

2. Food or drink must not be permitted in the immediate area of the spa or on the deck which surrounds it.

3. Except as otherwise provided in this section, spectators and non-bathers must be excluded from the toilet rooms provided for the persons using a public spa or spa facility. If the management desires to accommodate spectators and non-bathers, they must be provided with separate toilet facilities. An exception to the requirements of this section may be granted if, in the opinion of the health authority, the toilet facilities provided for bathers are also adequate to accommodate spectators and non-bathers.

Sec. 149

Spa covers and solar blankets.

1. A spa cover or solar blanket may be used only if the spa is closed, unless the cover or blanket:

(a) Is secured around its entire perimeter; and

(b) Is designed to support and is capable of supporting the live load of one adult person.

2. Except as otherwise provided in subsection 1, unauthorized persons must not be permitted in the spa area while a spa cover or solar blanket is in use.

Compliance and Enforcement

Sec. 150

Notice of violation. If the health authority inspects a public spa and finds a violation of any provision of these regulations that does not seriously endanger the public health, he shall issue a written notice of the violation to the owner or his representative and allow a reasonable time for the violation to be corrected.

Sec. 151

Suspension or denial of operating permit.

1. The health authority may order a suspension of an operating permit and may order the owner or operator of a public spa to prohibit any person from using it if he finds one or more of the following:

(a) A failure of the equipment, structure, area or enclosure of the facility or bathing place which jeopardizes the health or safety of the persons using or operating it.

(b) That the facility or bathing place lacks properly functioning equipment or proper material for recirculating, treating or testing the water used for bathing.

(c) A lack of required supervisory personnel required lifeguards.

(d) That the operator of the facility or public spa is not maintaining the required water quality.

(e) That the operator does not possess a valid operating permit.

2. The health authority may deny an application for an operating permit if the applicant fails to:

(a) Notify the health authority before construction and completion of the facility;

(b) Allow inspection of the facility during or after its construction; or

(c) Follow any of the requirements set forth in these regulations.

In lieu of suspension or revocation of a permit, a public spa may be allowed to voluntarily close until the violations are corrected.

Sec. 152

Order for closure; revocation of suspended permit.

1. If the health authority orders the closing of a public spa, he will issue a written order to the owner or operator of the facility or bathing place, or his representative, stating with particularity the reason for the order of closure along with his finding that the condition giving rise to the order represents a serious threat to the public health and safety.

2. The order must state that the facility or public spa is to be closed immediately and must specify the corrective action necessary before the facility or bathing place may be reopened for use.

3. The order must be served upon the owner, operator, representative or a person in charge of the facility or public spa. The person on whom the order is served shall close the facility or bathing place immediately and shall prohibit any person from using it.

4. If the order is served upon a person whose operating permit is suspended, the health authority may take appropriate action to revoke the operating permit unless the operator:

(a) Closes the facility or bathing place immediately; and

(b) Takes any corrective action required by the order within the time therein specified.

Sec. 153

Procedure for review of actions taken by Health Division; appeals.

1. A person who has reason to believe that an action taken by the Health Division pursuant to these regulations, is incorrect or based on inadequate knowledge may, within 10 business days after receiving notice of the action, request an informal discussion with the employee responsible for the action and the immediate supervisor of the employee.

2. If the informal discussion does not resolve the problem, the aggrieved person may, within 10 business days after the date scheduled for the informal discussion, submit a written request to the Health Division for an informal conference. The informal conference must be scheduled for a date, place and time mutually agreed upon by the aggrieved person and the Health Division, except that the informal conference must be held no later than 60 days after the date on which the Health Division received the written request.

3. Except as otherwise provided in subsection 4, the determination of the Health Division resulting from the informal conference cannot be appealed and is the final remedy available to the aggrieved person.

4. An applicant for or holder of a permit or license issued pursuant to these regulations who is aggrieved by an action of the Health Division relating to the denial of an application for or renewal of a permit or license or the suspension or revocation of a permit or license may appeal that action in accordance with these regulations after exhausting the informal procedures set forth in this section, except that the Health Division may waive the informal procedures, or any portion thereof, by giving written notice to the aggrieved person.

Sec. 154

Re-inspection.

1. After the specified corrective action has been taken, the owner or operator or his representative shall notify the health authority that the facility or public spa is ready for re-inspection

2. If upon re-inspection the corrective action is approved, the health authority will order the reinstatement of the operating permit, at which time the facility or bathing place may be opened for use.

3. If upon re-inspection the corrective action is not approved, the operating permit remains suspended and the facility or public spa must be kept closed and out of use until corrective action is approved.

NAC 444.310 through 444.546 are hereby repealed.

General Provisions

NAC 444.310 Definitions. (NRS 439.200**,** 444.070**)** As used in NAC 444.310 to 444.546, inclusive, unless the context otherwise requires, the words and terms defined in NAC 444.315 to 444.416, inclusive, have the meanings ascribed to them in those sections.

(Supplied in codification; A by Bd. of Health, 11-2-88; 1-16-96; 10-30-97)

NAC 444.315 "Air induction system" defined. (NRS 439.200**,** 444.070**)** "Air induction system" means a system activated by a separate air power unit or blower which forces air into hollow ducting built into the spa floor, bench or other part of the spa.

[Bd. of Health, Public Spa Reg. Art. 1 § 1.1, eff. 11-27-79]

NAC 444.317 "**Antivortex drain" defined. (**NRS 439.200**,** 444.070**)** "Antivortex drain" means a drain having a raised cover designed to prevent or minimize any suctioning effect on a person that has come into contact with the drain.

(Added to NAC by Bd. of Health, eff. 11-2-88)

NAC 444.318 "**Approved" defined. (**NRS 439.200**,** 444.070**)** "Approved" means acceptable to the health authority based upon a determination concerning conformance with appropriate standards and good public health practices.

(Added to NAC by Bd. of Health, eff. 11-2-88)

NAC 444.320 "**Bather" defined. (**NRS 439.200**,** 444.070**)** "Bather" means any person using the spa and adjoining deck area for the purpose of therapy, water sports or related activities.

[Bd. of Health, Public Spa Reg. Art. 1, § 1.2, eff. 11-27-79]

NAC 444.330 "**Deck" defined. (**NRS 439.200**,** 444.070**)** "Deck" means the unobstructed area around the perimeter of a spa which is specifically used by bathers.

[Bd. of Health, Public Spa Reg. Art. 1 § 1.3, eff. 11-27-79]—(NAC A 11-2-88)

NAC 444.340 "**Health authority" defined. (**NRS 439.200**,** 444.070**)** "Health authority" means officers and agents of the Health Division or of the local boards of health.

[Bd. of Health, Public Spa Reg. Art. 1 § 1.4, eff. 11-27-79]

NAC 444.345 "**Hydrojet" defined. (**NRS 439.200**,** 444.070**)** "Hydrojet" means a fitting which blends air and water creating a high velocity turbulent stream of air and water.

[Bd. of Health, Public Spa Reg. Art. 1 § 1.5, eff. 11-27-79]

NAC 444.347 "**Hydrojet pump system" defined. (**NRS 439.200**,** 444.070**)** "Hydrojet pump system" means a system in which one or more hydrojets are activated by the use of a pump which is completely independent of the filtration and heating system of the spa.

[Bd. of Health, Public Spa Reg. Art. 1 § 1.6, eff. 11-27-79]

NAC 444.350 "**Ladder" defined. (**NRS 439.200**,** 444.070**)** "Ladder" means a series of vertically separated treads or rungs connected by vertical rail members or independently fastened to a vertical spa wall.

[Bd. of Health, Public Spa Reg. Art. 1 § 1.17.1, eff. 11-27-79]

NAC 444.353 "**Multiport valve" defined. (**NRS 439.200**,** 444.070**)** "Multiport valve" means a separate switching valve that has a separate position for each of the various filter operations and that combines in one unit the functions of two or more direct-flow valves.

(Added to NAC by Bd. of Health, eff. 11-2-88)

NAC 444.355 "**Nonslip surface" defined. (**NRS 439.200**,** 444.070**)** "Nonslip surface" means a surface which is designed to reduce or prevent slipping of bare feet.

[Bd. of Health, Public Spa Reg. Art. 1 § 1.7, eff. 11-27-79]

NAC 444.360 "**NTU" defined. (**NRS 439.200**,** 444.070**)** "NTU" means nephelometric turbidity units, a measure of water clarity.

[Bd. of Health, Public Spa Reg. Art. 1 § 1.8, eff. 11-27-79]

NAC 444.365 "**Overflow system" defined. (**NRS 439.200**,** 444.070**)** "Overflow system" means perimeter-type overflows, surface skimmers, and surface water collection systems of various design and manufacture.

[Bd. of Health, Public Spa Reg. Art. 1 § 1.9, eff. 11-27-79]

NAC 444.370 "**Person" defined. (**NRS 439.200**,** 444.070**)** "Person" includes governmental agencies.

[Bd. of Health, Public Spa Reg. Art. 1 § 1.10, eff. 11-27-79]

NAC 444.375 "**Plastic" defined. (**NRS 439.200**,** 444.070**)** "Plastic" means any of numerous organic, synthetic, or processed materials which are composed mostly of thermoplastic or thermosetting polymers of high molecular weight and which can be molded, cast, or extruded at some stage in manufacture or in processing into finished articles or objects, or can be shaped by flow.

[Bd. of Health, Public Spa Reg. Art. 1 § 1.11, eff. 11-27-79]

NAC 444.380 "**Prefabricated spa" defined. (**NRS 439.200**,** 444.070**)** "Prefabricated spa" means a public spa that has been designed by a licensed professional engineer to be fabricated at a factory into a packaged unit consisting of all of the required components for a public spa, with construction on-site consisting mainly of assembling the components.

[Bd. of Health, Public Spa Reg. Art. 1 § 1.12, eff. 11-27-79]—(NAC A 1-16-96)

NAC 444.385 "**Public spa" defined. (**NRS 439.200**,** 444.070**)**

1. "Public spa" means any spa operated by any person, whether owner, lessee, operator, licensee or concessionaire, for the use of the public or the membership of an organization, whether or not a fee is charged for its use.

2. The term does not include spas at single-family private residences which are controlled by the homeowner, the use of which is limited to swimming or bathing by members of the family or invited guests.

[Bd. of Health, Public Spa Reg. Art. 1 § 1.13, eff. 11-27-79]

NAC 444.390 "**Ramp" defined. (**NRS 439.200**,** 444.070**)** "Ramp" means a sloping floor, walk or roadway leading from one level to another, or leading to the spa edge and having a maximum slope of 1:12.

[Bd. of Health, Public Spa Reg. Art. 1 § 1.14, eff. 11-27-79]

NAC 444.395 "**Recessed steps" defined. (**NRS 439.200**,** 444.070**)** "Recessed steps" means a riser and tread or a series of risers and treads extending down into the deck with the bottom riser and tread ending at the spa wall, creating a stair well.

[Bd. of Health, Public Spa Reg. Art. 1 § 1.17.2, eff. 11-27-79]

NAC 444.397 "**Recessed treads" defined. (**NRS 439.200**,** 444.070**)** "Recessed treads" means a series of vertically spaced cavities in the spa wall creating tread areas for stepholes.

[Bd. of Health, Public Spa Reg. Art. 1 § 1.17.3, eff. 11-27-79]

NAC 444.398 "Remodel" defined. (NRS 439.200**,** 444.070**)**

1. "Remodel" means to replace all or part of any structure, circulation system or appurtenance of a public bathing or swimming facility or to modify it to the extent that its design, configuration or operating characteristics differ in any respect from those of the original.

2. The term does not include normal maintenance and repair or the replacement of equipment that has previously been approved unless the result of the maintenance or repair is that the type, size or operating characteristics of the equipment are substantially different from those of the original.

(Added to NAC by Bd. of Health, eff. 11-2-88)

NAC 444.399 "Slip resistant" defined. (NRS 439.200**,** 444.070**)** "Slip resistant" means a finish or textured surface designed to prevent or reduce slipping by bare skin in contact with it under wet conditions.

(Added to NAC by Bd. of Health, eff. 11-2-88)

NAC 444.400 "Spa" defined. (NRS 439.200**,** 444.070**)**

1. "Spa" means a pool primarily designed for therapeutic use which is not drained, cleaned or refilled for each user.

2. The term includes units which employ hydrojet circulation, hot water, cold water, mineral water, air induction bubbles or combinations of them.

[Bd. of Health, Public Spa Reg. Art. 1 § 1.15, eff. 11-27-79]

NAC 444.403 "Spa enclosure" defined. (NRS 439.200**,** 444.070**)** "Spa enclosure" means an effective barrier for excluding unauthorized persons from the spa area and the area inside of the fence or barrier surrounding the spa.

[Bd. of Health, Public Spa Reg. Art. 1 § 1.16, eff. 11-27-79]

NAC 444.405 "Stairs" defined. (NRS 439.200**,** 444.070**)** "Stairs" means a riser and tread or a series of risers and treads extending down from the deck into the spa.

[Bd. of Health, Public Spa Reg. Art. 1 § 1.17.4, eff. 11-27-79]

NAC 444.407 "Steps" defined. (NRS 439.200**,** 444.070**)** "Steps" means stairs or ladders designed to permit entry and exit to and from the spa.

[Bd. of Health, Public Spa Reg. Art. 1 § 1.17, eff. 11-27-79]

NAC 444.410 "Toxic" defined. (NRS 439.200**,** 444.070**)** "Toxic" means a quality which might produce an adverse physiological effect on a person.

[Bd. of Health, Public Spa Reg. Art. 1 § 1.18, eff. 11-27-79]

NAC 444.415 "Waterline" defined. (NRS 439.200**,** 444.070**)** "Waterline" means:

1. Where a skimmer system is in use, the midpoint of the operating range of the skimmer.

2. Where an overflow system is in use, the height of the overflow rim.

[Bd. of Health, Public Spa Reg. Art. 1 §§ 1.19-1.19.2, eff. 11-27-79]

NAC 444.416 "Wet deck area" defined. (NRS 439.200**,** 444.070**)** "Wet deck area" means the 4-foot-wide unobstructed area outside a spa's or pool's water perimeter, curb, diving boards, diving towers or pool sides.

(Added to NAC by Bd. of Health, eff. 11-2-88)

NAC 444.417 Applicability. (NRS 439.200**,** 444.070**)**

1. The provisions of NAC 444.310 to 444.546, inclusive, referring to construction or modifications apply to all public spas constructed on or after November 27, 1979, and to any other public spa, where, in the opinion of the health authority, enforcement of those provisions is necessary to eliminate a condition hazardous to health or safety.

2. The provisions of NAC 444.310 to 444.546, inclusive, pertaining to maintenance and sanitation apply to all public spas.

[Bd. of Health, Public Spa Reg. Art. 31, eff. 11-27-79]

NAC 444.419 Severability. (NRS 439.200**,** 444.070**)** If any provision of NAC 444.310 to 444.546, inclusive, is declared unconstitutional or invalid for any reason, the remainder of the provisions of those sections are not intended to be affected thereby.

[Bd. of Health, Public Spa Reg. Art. 32, eff. 11-27-79]

Preliminary Requirements

NAC 444.420 Application; plans, specifications and descriptive material. (NRS 439.200**,** 444.070**,** 444.080**)**

1. Any person who desires to construct a public spa or modify or add to an existing public spa or alter its equipment must apply in writing to the health authority on forms furnished by the health authority, giving the name of the bathing place and its location together with such other information as may be required. The application must be accompanied by plans, specifications and supporting data.

2. Plans and specifications for spas which are not prefabricated must have been prepared by a professional engineer who is registered in this State, an architect who is registered in this State, or a licensed contractor who holds a classification A license with an A-10 subclassification issued by the State Contractors' Board. A licensed professional engineer or a registered architect shall include his seal and signature on any plans and specifications submitted to the health authority. A licensed contractor shall include his signature on any plans and specifications submitted to the health authority.

3. The plans must be drawn to scale, include a north arrow, and be accompanied by proper specifications to permit a comprehensive engineering review. The plans must include:

(a) A plot plan and sectional views with all necessary dimensions of the spa and surrounding area.

(b) A piping diagram showing all plumbing, including treatment facilities with pertinent elevation data, in sufficient detail to permit a hydraulic analysis of the system.

(c) An electrical diagram showing the method of grounding and other pertinent details, which must show lighting and other electrical systems.

(d) Detailed plans of the bathhouse, equipment rooms, dressing rooms, toilet facilities, showers, and other spa structures and facilities.

(e) A hydraulic analysis completed by the applicant or his representative and submitted to the health authority on a form provided by the health authority.

4. Leaflets, catalogs or other descriptive material must be furnished when mechanical equipment is specified by trade name, catalog number or any other designation which identifies the equipment, rather than by specification. This material will be returned to the applicant upon his request after the review of the plans has been completed.

5. The plans must be complete. The plans and specifications must be submitted in triplicate or as otherwise required.

6. The submitted plans must be approved in writing before any construction is undertaken.

[Bd. of Health, Public Spa Reg. Art. 2 §§ 2.1-2.1.5.6, eff. 11-27-79]—(NAC A 1-16-96)

NAC 444.422 Changes in plans; review of plans; structural adequacy. (NRS 439.200**,** 444.070**,** 444.080**)**

1. Public spa facilities must be built in accordance with the plans as approved, unless prior approval of any changes is obtained in writing from the health authority.

2. The review of the plans by the health authority will not include review of structural design or structural stability of any part of a public spa. Certification of structural adequacy is the responsibility of the design engineer, architect, licensed contractor or the manufacturer.

3. The health authority shall review the plans within 30 days after receiving them.

[Bd. of Health, Public Spa Reg. Art. 2 §§ 2.2-2.3, eff. 11-27-79]

NAC 444.424 Inspections. (NRS 439.200**,** 444.070**,** 444.090**)**

1. The owner, or his agent, shall notify the health authority at specific predetermined stages of construction and at the time of completion of the public spa to permit inspection of the public spa and related equipment during and after construction.

2. In areas of the State where the health authority cannot provide the inspection and where local government does not require building inspections, the owner or his agent may be required to hire an independent inspector. The independent inspector may be selected by the owner or his agent upon the approval of the health authority.

3. No public spa may be placed in operation until such inspections show compliance with the requirements of NAC 444.310 to 444.512, inclusive.

[Bd. of Health, Public Spa Reg. Art. 2 §§ 2.4-2.4.3, eff. 11-27-79]

Construction of Spa

NAC 444.428 Adoption of Standards by reference. (NRS 439.200**,** 444.070**)** The State Board of Health adopts by reference NSF International Standards 14, “Plastic Piping Components and Related Materials,” 50, “Circulation System Components for Swimming Pools, Spas/Hot Tubs” and 61, “Drinking Water System Components-Health Effects.” A copy of the Standards may be purchased from the NSF International, P.O. Box 130140, Ann Arbor, Michigan

48113. The cost of Standard 14 is $40. The cost of Standard 50 is $45. The cost of Standard 61 is $65.

(Added to NAC by Bd. of Health, eff. 11-2-88; A 1-16-96)

NAC 444.429 Use of equipment and materials not approved by NSF International. (NRS 439.200**,** 444.070**)** The health authority may permit the use of equipment and materials which are not designated by the NSF International as complying with the Standards adopted pursuant to NAC 444.428 if the health authority determines that the equipment and materials comply with standards equivalent to the NSF International Standards.

(Added to NAC by Bd. of Health, eff. 1-16-96)

NAC 444.430 Shape. (NRS 439.200**,** 444.070**)** The shape of any public spa must be such that the circulation of the water will not be impaired.

[Bd. of Health, Public Spa Reg. Art. 11 § 11.1, eff. 11-27-79]

NAC 444.432 Depth. (NRS 439.200**,** 444.070**)**

1. The maximum water depth for a public spa is 4 feet (1.22 m), measured from the waterline. Exceptions may be made by the health authority for spas designed for special purposes such as instruction, treatment and therapy.

2. The maximum depth for any seat or sitting bench in a public spa is 2 feet (61 cm) measured from the waterline.

[Bd. of Health, Public Spa Reg. Art. 11 §§ 11.2 & 11.3, eff. 11-27-79]

NAC 444.434 Depth markings. (NRS 439.200**,** 444.070**)** Spas must have permanent depth markings plainly and conspicuously posted and located as follows:

1. The maximum water depth must be clearly marked.

2. Depth markings must be positioned within 18 inches (46 cm) of the water's edge.

3. Depth markings must be positioned to be read while standing on the deck facing the water.

4. There must be at least two depth markings per spa regardless of spa size or shape.

[Bd. of Health, Public Spa Reg. Art. 28 §§ 28.2-28.2.4, eff. 11-27-79]

NAC 444.436 Slope. (NRS 439.200**,** 444.070**)** The slope of the spa floor must not exceed 1 foot (30.50 cm) of fall in 12 feet (3.66 m).

[Bd. of Health, Public Spa Reg. Art. 11 § 11.5, eff. 11-27-79]

NAC 444.438 Materials. (NRS 439.200**,** 444.070**)**

1. Materials used in components and accessories used in and around public spas must not be hazardous to humans or to the environment in which the spa is installed. These materials must be capable of fulfilling the requirements of design, installation and intended use.

2. All materials and accessories to be used in and around public spas must be selected to ensure that all parts with external surfaces and edges which might come in contact with a bather are assembled, arranged and finished so that they will not constitute a hazard to the health or safety of children or adults who are using the spa for its intended purpose.

3. Wood may not be used as a material, component or accessory in public spas.

[Bd. of Health, Public Spa Reg. Art. 7, eff. 11-27-79]—(NAC A 11-2-88)

NAC 444.440 Structural design. (NRS 439.200**,** 444.070**)**

1. The structural design and materials used in constructing a public spa must meet generally accepted structural engineering practice and provide a sound, durable structure which will safely sustain all the dead loads, live loads, liquid, hydrostatic and earth pressures involved. The spa must be watertight and the surfaces must be inert, nontoxic, smooth and easily cleaned, and should be light in color.

2. The strength of the assembled or installed components and accessories used in and around a public spa must be such that no structural failure of any component part can cause the failure of any other part.

[Bd. of Health, Public Spa Reg. Art. 8 §§ 8.1 & 8.2, eff. 11-27-79]

NAC 444.442 Steps, ladders, treads and handrails required. (NRS 439.200**,** 444.070**)**

1. Spa steps, ladders or recessed treads must be provided when the spa is more than 2 feet (61 cm) deep.

2. A spa must be equipped with at least one handrail (or ladder equivalent) for each 50 feet (15.25 m) of perimeter or portion thereof, to designate the point or points of entry and exit.

[Bd. of Health, Public Spa Reg. Art. 12 §§ 12.1 & 12.2, eff. 11-27-79]

NAC 444.444 Spa steps and recessed steps. (NRS 439.200**,** 444.070**)** Where required, spa steps and recessed steps must meet the following specifications:

1. Step treads must have a minimum unobstructed horizontal tread depth of 10 inches (25.40 cm) and a minimum width of 12 inches (30.48 cm). Step treads must have slip-resistant surfaces.

2. Step risers must not be less than 7 inches (17.78 cm) high nor more than 1 foot (30.48 cm) high. When the bottom tread serves as a bench or seat, the bottom riser must be no more than 1 foot 2 inches (35.56 cm) high. The first and last risers need not be uniform in height, but must comply with the requirements of this subsection. The height of the top riser must be measured from the finished deck. Risers between the first and last risers must be uniform in height.

3. The horizontal edge of a step, seat or bench tread must be constructed of a material which contrasts with the color of the steps, and must be clearly visible and evident to bathers. The contrasting material on the horizontal edge must be at least 2 inches (5 cm) wide.

4. The outside edge of handrails placed to assist bathers to leave the spa must be located not more than 1 foot 9 inches (53.34 cm) or less than 1 foot 3 inches (38.10 cm) from a line drawn vertically from the bottom riser, away from the spa wall.

5. Seats or benches may be provided as part of the steps.

[Bd. of Health, Public Spa Reg. Art. 12 §§ 12.3 & 12.3.1-12.3.9, eff. 11-27-79]—(NAC A 11-2-88)

NAC 444.446 Recessed treads. (NRS 439.200**,** 444.070**)** Recessed treads, when provided, must meet the following specifications:

1. Stepholes must be:

(a) Uniformly spaced, not more than 1 foot (30.48 cm) nor less than 7 inches (17.48 cm) apart at the centerline.

(b) At least 5 inches (12.70 cm) deep and at least 1 foot (30.48 cm) wide.

2. Stephole treads must be sloped to drain into the spa to prevent accumulation of dirt.

3. The vertical distance between the spa coping edge and the uppermost recessed tread must be 1 foot (30.48 cm) or less.

4. Each set of recessed treads must be provided with two handrails which fully serve all treads and risers.

[Bd. of Health, Public Spa Reg. Art. 12 §§ 12.5-12.5.5, eff. 11-27-79]

NAC 444.448 Ladders. (NRS 439.200**,** 444.070**)** Where required, ladders must meet the following specifications:

1. Spa ladders must be made entirely of corrosion-resistant materials.

2. Ladder treads must have slip-resistant surfaces.

3. Ladder designs must provide two handholds or handrails which fully serve all treads. The outside diameter of handrails must not be more than 1.9 inches (4.83 cm) or less than 1 inch (2.54 cm).

4. The clearance between a ladder and the spa wall must be not more than 6 inches (15.24 cm) nor less than 3 inches (7.62 cm).

[Bd. of Health, Public Spa Reg. 12 §§ 12.4-12.4.5, eff. 11-27-79]

NAC 444.450 Handholds. (NRS 439.200**,** 444.070**)**

1. A public spa must be provided with suitable handholds around the perimeter in areas where the spa is more than 3 feet 6 inches (1.07 m) deep, measured from the deepest point of the spa floor to the waterline.

2. Handholds must be spaced no farther apart than 4 feet (1.22 m) and must be provided with a suitable, slip-resistant surface.

3. Handholds may be:

(a) Ledges, radiused flanges, or cantilevered decks along the immediate top edge of the spa, located not more than 1 foot (30.50 cm) above the waterline.

(b) A rope or railing placed not more than 1 foot (30.50 cm) above the waterline, fastened to the spa wall.

(c) Ladders, steps and seat ledges.

(d) A combination of the handholds listed in this section.

4. The overhang for coping or cantilevered decking:

(a) Must not exceed 2 inches (5.08 centimeters) or be less than 1 inch (2.54 centimeters).

(b) Must not exceed 2 1/2 inches (6.4 centimeters) in thickness for a spa for which an operating permit has been issued before January 16, 1996.

(c) Must not exceed 3 1/2 inches (8.89 centimeters) in thickness for a spa for which an operating permit is issued on or after January 16, 1996.

[Bd. of Health, Public Spa Reg. Art. 11 §§ 11.4-11.4.4, eff. 11-27-79]—(NAC A 11-2-88; 1-16-96)

NAC 444.452 Miscellaneous requirements. (NRS 439.200**,** 444.070**)**

1. The surface finish of all public spas, including the bottom and sides, should be light-colored material and must present a smooth surface which can be easily cleaned and which has no cracks, openings, seams or expansion joints.

2. The finished trim dimension tolerances for prefabricated units must be the manufacturer's stated "rough-in" dimensions ±1/2 inch (±1.27 cm).

3. Each prefabricated spa must be supplied by the manufacturer with a copy of the manufacturer's written installation instructions affixed to the spa in a conspicuous place.

4. Each prefabricated spa must be supplied with a copy of the manufacturer's written care and maintenance instructions affixed to the unit in a conspicuous place.

5. The manufacturer's name, trademark, or both, must be permanently and legibly marked on each prefabricated spa so that it is visible after installation.

[Bd. of Health, Public Spa Reg. Art. 6, eff. 11-27-79]

NAC 444.454 Decks: Dimensional design. (NRS 439.200**,** 444.070**)**

1. A continuous unobstructed deck at least 4 feet (1.22 m) wide, including the coping, must be provided around at least half of the perimeter of the spa. Deck and wall junctures must be coved with a minimum of 4 inches (10.16 cm). Decks elevated above the normal walking level of the area must have protective safety barriers at the edge as required by NAC 444.463.

2. Risers of steps for the deck must be uniform and be not less than 3.75 inches (9.53 cm) nor more than 7.75 inches (19.70 cm) high. The minimum tread width is 10 inches (25.40 cm).

3. The maximum slope of decks is .5 inch per foot (4.0 cm per meter) except for ramps. Ramps may have a slope of not more than 5 percent.

4. The maximum voids between adjoining concrete slabs or between concrete slabs and expansion joint material is .2 inch (.51 cm) of horizontal clearance, with a maximum difference in elevation of .25 inch (.64 cm).

5. Joints where spa coping meets concrete deck work must be watertight and must not allow water to seep to the ground beneath. Joints in decks must be provided to prevent cracks which may be hazardous because of differences in elevations, separation of surfaces or movement of the deck.

6. Areas where deck work joins concrete work other than the spa must be protected by expansion joints filled with nonrigid material such as mastic to protect the spa from the pressures of relative movements. In the absence of specific local engineering practices, the work must be performed in accordance with recommended practices of the American Concrete Institute.

7. Where deck work joins the spa coping, the joining areas must be designed and installed to protect adequately the spa coping and its mortar bed from damage as a result of reasonable movement of adjoining deck work.

8. Decks must be edged, radiused or otherwise relieved so as to present no exposed sharp corners.

9. Decks must be sloped as required by subsection 3 to drain to perimeter areas or to deck drains. Deck drains must not be greater than 25 feet (7.62 m) apart and must not return water to the recirculation system. Drains must remove spa splash water, deck cleaning water, and rainwater at a rate approximately equal to the rate of arrival without leaving excessive puddles.

10. Deck work must be designed and installed in accordance with engineering practices required in the area of installation. This includes, but is not limited to, the design and quality of the subbase when required, concrete mix design, and reinforcing. In the absence of specific local engineering practices, the work must be performed in accordance with recommended practices of the American Concrete Institute.

[Bd. of Health, Public Spa Reg. Art. 13 §§ 13.4 & 13.7-13.16, eff. 11-27-79]—(NAC A 11-2-88)

NAC 444.456 Decks: Surfaces. (NRS 439.200**,** 444.070**)**

1. Decks, ramps and similar surfaces, including step treads, must be reserved for the use of bathers only, and be slip resistant.

2. Roughness or irregularity of slip-resistant surfaces must not cause injury or discomfort under intended use.

3. Special features in or on decks, such as depth markings, pool brand insignia or similar markings, must conform to the requirements of NAC 444.454 to 444.460, inclusive.

4. The ground on which any spa structure rests must be adequately compacted to support properly the structure.

5. Synthetic deck surfaces must be designed to be slip resistant and comply with requirements set forth by the health authority.

6. Wood decks, carpets and other absorbent materials are prohibited in the wet deck area.

[Bd. of Health, Public Spa Reg. Art. 13 §§ 13.1-13.3, 13.5 & 13.6, eff. 11-27-79]—(NAC A 11-2-88)

NAC 444.458 Hose bibs. (NRS 439.200**,** 444.070**)** One or more hose bibs must be provided within 50 feet (15.24 m) of the facility for use in cleaning the deck area and above, and they must be located so that they do not constitute a safety hazard.

[Bd. of Health, Public Spa Reg. Art. 13 § 13.17, eff. 11-27-79]

NAC 444.460 Drinking fountains. (NRS 439.200**,** 444.070**)** A drinking fountain must be provided within 100 feet (30.48 m) of the spa where it will be readily accessible from a spa pool. The drinking fountain may be inside or outside the spa pool enclosure.

[Bd. of Health, Public Spa Reg. Art. 13 § 13.18, eff. 11-27-79]

NAC 444.462 Roofs and canopies. (NRS 439.200**,** 444.070**)** Roofs and canopies over public spas must be constructed so that moisture or condensation from the roof or canopy does not drain into the spa. Roofs and canopies must be constructed so that they blend in with the surroundings and must be acoustically treated.

[Bd. of Health, Public Spa Reg. Art. 8 §§ 8.3 & 8.3.1, eff. 11-27-79]

NAC 444.463 Enclosures; exclusion of unauthorized persons. (NRS 439.200**,** 444.070**)** The holder of a permit to operate a public spa must:

1. Establish procedures to exclude unauthorized persons from the spa and spa area.

2. Construct a fence, wall, building, enclosure or any combination thereof which completely encloses the spa or pool area and:

(a) Is constructed from materials which:

(1) Offer no external handholds or footholds.

(2) Are impenetrable by small children.

(b) Has a height of at least 5 feet (1.52 meters) if the facility is operated solely for and in conjunction with lodgings, or a height of a least 6 feet (1.8 meter) if the facility is open to the general public and not operated solely for and in conjunction with lodgings.

(c) Has vertical supports spaced no wider than 4 inches (10.16 cm) apart.

(d) If an opening is provided under the bottom of the enclosure, has an opening no wider than 4 inches (10.16 cm).

(e) Contains gates and doors equipped with permanent locking devices and self-closing and positive self-latching closure mechanisms at least 3 1/2 feet (1.06 meters) above the deck, walkway or floor and opening into the spa or pool area so that the gates and doors close by themselves and positively latch from any open position.

➥ Facilities which have 24-hour-a-day security for the spa or pool area may be exempted from the requirements of this section.

(Added to NAC by Bd. of Health, eff. 11-2-88)

NAC 444.465 Gates and doors. (NRS 439.200**,** 444.070**)** Gates and doors which open into a spa or pool area must not be blocked open. The self-closing mechanisms or latches on the gates and doors may not be altered so that the gates and doors remain open.

(Added to NAC by Bd. of Health, eff. 11-2-88)

NAC 444.466 Electrical requirements. (NRS 439.200**,** 444.070**)**

1. Wiring and grounding of all electrical equipment associated with a spa and the bonding and grounding of all metal parts must meet the ***National Electric Code*** published by the National Fire Protection Association.

2. Area lighting must not be installed directly over the spa water surface. Area lights must be shielded.

3. Underwater lighting may be installed on the bottom step or bench riser only.

4. All equipment, fixtures and wiring must bear an appropriate Underwriters Laboratories, Inc., label or the equivalent.

[Bd. of Health, Public Spa Reg. Art. 10, eff. 11-27-79]—(NAC A 11-2-88)

NAC 444.468 When bathhouses required. (NRS 439.200**,** 444.070**)**

1. Dressing rooms, toilet facilities and shower rooms are required for all public spas other than those provided in connection with lodging facilities if the spa is reserved for tenants or guests who occupy the lodging facilities. “In connection with lodging facilities” means that the spa is so situated that no bather will have to walk more than 300 feet (91.44 m) to sanitary facilities.

2. Where no bathhouse is located within 300 feet (91.44 m) of the spa, there must be a flush toilet, a lavatory and a shower for men, and the same facilities for women, at the spa.

[Bd. of Health, Public Spa Reg. Art. 14 §§ 14.1-14.3, eff. 11-27-79]

NAC 444.470 Bathhouse facilities. (NRS 439.200**,** 444.070**)**

1. The entrance and exits of a bathhouse must be screened to break any line of sight from outside.

2. Each bathhouse must be provided with separate facilities for each sex with no interconnection between the provisions for male and female bathers.

3. Floor surfaces must be reasonably smooth and slope at a rate of .25 inch per foot (2 cm per meter) toward the floor drains. Walls and partitions must be reasonably smooth and be made of durable material. A space of 10 inches to 12 inches (25.40 to 30.48 cm) must be left between the floor and the bottom of partitions forming compartments within dressing, shower and toilet rooms.

4. Each bathhouse must be arranged so that patrons, on leaving the dressing rooms, must pass the toilets and go through the showers to get to the spa.

5. Showers must be supplied with water at a temperature of at least 90°F (32.22°C) at a rate of 3 gallons per minute (11.34 liters per minute) per shower head. Mixing valves must be installed to prevent scalding of bathers.

6. Each licensee shall provide:

(a) One water closet for each 75 male bathers or fraction thereof, and one for each 50 female bathers or fraction thereof.

(b) One urinal for each 75 male bathers or fraction thereof.

(c) One lavatory for each 100 male bathers and one for each 100 female bathers, or fractions.

(d) One shower for each 50 male bathers and one for each 50 female bathers, or fractions.

7. Lockers, if provided, must be properly vented and set on solid masonry bases at least 4 inches high (10.16 cm) or on legs at least 10 inches (25.40 cm) long.

[Bd. of Health, Public Spa Reg. Art. 14 §§ 14.4-14.11, eff. 11-27-79]

NAC 444.472 Ventilation. (NRS 439.200**,** 444.070**)**

1. Indoor spas, shower rooms, dressing rooms and toilets of public spas must be properly ventilated.

2. Ventilation systems for indoor spas must be designed to prevent direct drafts on the bathers.

3. There must be at least five air changes per hour in the area in which an indoor spa is located, including spas located adjacent to enclosed swimming pools.

4. All interior rooms must be ventilated to the outside and in such a way that they do not remain excessively damp.

[Bd. of Health, Public Spa Reg. Art. 9, eff. 11-27-79]

NAC 444.474 Supply of water. (NRS 439.200**,** 444.070**)**

1. The water supply of the spa must be from an approved source and meet the requirements of the Health Division for potable water, except that the health authority may approve the use of natural hot or mineral waters.

2. A fillspout, if used, must have an air gap of not less than twice the pipe diameter, or 3 inches (7.62 cm) above the overflow of the spa, whichever is greater, and the fillspout must not protrude more than 2 inches (5.08 cm) beyond the edge of the spa.

3. The fillspout, if used, must be properly shielded so as not to create a hazard.

4. A surge tank or receptor may be installed for filling the spa if the spa water will freely overflow at deck level, the top of the surge tank or the top of the receptor before coming in contact with the water supply outlet.

[Bd. of Health, Public Spa Reg. Art. 17 §§ 17.1-17.3, eff. 11-27-79]—(NAC A 11-2-88)

NAC 444.476 Quality of water. (NRS 439.200**,** 444.070**)** The spa equipment must provide water meeting the following standards:

1. The water must be continuously disinfected by a chemical which imparts an easily measured, freely available residual effect. Adequate disinfection may be accomplished by:

(a) Normal chlorination 1.0 to 5.00 ppm (1.0 to 5.0 mg/l) of free chlorine at pH 7.0 to 8.0.

(b) Chlorinated cyanurate chlorination 1.0 to 5.00 ppm (1.0 to 5.0 mg/l) at pH 7.2 to 8.0.

(c) Normal bromination 3.0 to 5.0 ppm (3.0 to 5.0 mg/l) at pH 7.0 to 8.0.

2. The health authority may accept another disinfecting material or method when it has been adequately demonstrated to the health authority that it provides a satisfactory residual effect which is easily measured, and that it is otherwise as effective under conditions of use as the chlorine concentration required in this section.

3. The maximum permissible concentration of cyanuric acid is 100 ppm (100 mg/l).

4. The total alkalinity should be within the range of 80 to 120 ppm (80 to 120 mg/l), but alkalinity must not exceed 150 ppm (150 mg/l).

5. The chemical quality of water in the spa must not cause objectionable physiological effects to bathers.

[Bd. of Health, Public Spa Reg. Art. 17 §§ 17.4-17.4.4, eff. 11-27-79]—(NAC A 11-2-88)

NAC 444.477 Inlets. (NRS 439.200**,** 444.070**)**

1. Spa inlets must be:

(a) Rounded.

(b) Smooth.

(c) Installed at least 18 inches (46 centimeters) below the normal operating water level. An exception to this requirement may be granted by the health authority if the shallow depth of the pool or spa prevents the inlets from being installed at that depth.

(d) Located to produce a uniform circulation, without the existence of dead spots.

2. Spa inlets must not extend from the pool wall or floor.

3. Each set of stairs must have an inlet positioned to provide good circulation over the stairs.

4. If wall inlets are used, the spacing between adjacent inlets must not exceed 15 feet. The spacing may be varied if the number of inlets is not reduced below a number equal to one-fifteenth of the pool's perimeter in feet.

5. Any spa having a width greater than 30 feet (9 meters) must have floor inlets located to provide general circulation and not direct flow to floor drains. If floor inlets are used, the spacing between adjacent inlets must not exceed 15 feet and the spacing between inlets and the adjacent wall must not exceed 10 feet (3.04 meters).

6. A combination of wall and floor inlets may be used if the design can be shown to produce a uniform circulation of water to maintain a uniform residual of disinfectant throughout the spa.

7. Spas greater than 30 feet (9.14 meters) in width must have floor inlets which comply with the spacing requirements of subsection 5 or with a combination of wall and floor inlets which comply with the spacing requirements of subsections 4 and 5.

(Added to NAC by Bd. of Health, eff. 11-2-88)

NAC 444.480 Drains. (NRS 439.200**,** 444.070**)**

1. Each spa must be provided with a drain at the deepest point to permit complete drainage. Outlets on the pump suction must be covered by suitable protective grates or antivortex covers which are securely fastened and cannot be removed except with tools.

2. The total velocity through grate openings must not exceed 1 1/2 feet per second (.5 meters per second) through an opening no greater than 1/2 square inch (1.3 square centimeters). Where only one main drain is provided, it must be an antivortex drain and velocity must not exceed 6 feet per second.

3. The location and design of spa outlets must incorporate at least one of the following methods for preventing outlet entrapment:

(a) The spa must contain at least two outlets separated by a minimum of 3 feet, or located on different surface planes within the spa.

(b) A hydrojet booster system that includes no fewer than two main drains separated by not less than 4 feet and connected to pipes of equal diameter. The system must not permit either drain to be cut off from the suction line. Drains for hydrojet booster systems must have antivortex covers as approved by the health authority.

(c) The spa's drainage system must include at least one antivortex outlet drain. In depths of 4 feet 6 inches (1.37 meters) or less the antivortex drain must not provide a tripping or stubbing hazard to the bather.

(d) The spa's drainage system must contain some other approved means to guard against outlet entrapment.

4. The main drains must be capable of taking at least 50 percent of the circulated flow.

[Bd. of Health, Public Spa Reg. Art. 18 §§ 18.3-18.5, eff. 11-27-79]—(NAC A 11-2-88)

NAC 444.482 Piping. (NRS 439.200**,** 444.070**)**

1. Piping must be made of nontoxic material, resistant to corrosion and able to withstand operating pressures. Pipes must be identified by color code, tags or labels. All plastic piping and fittings used in the recirculation system must be designated by the NSF International as complying with all applicable requirements of NSF International Standard 14 or Standard 61 for potable water applications or in the absence of applicable requirements, be approved by the health authority. The piping must be imprinted with the manufacturer's name and the potable water mark of the NSF International, "NSF-pw," the make that indicates compliance with Standard 61, "NSF-61," or an equivalent mark.

2. The water velocity in spa piping other than copper piping must not exceed 10 feet per second (3.05 meters per second) for discharge piping. The velocity for copper piping must not exceed 6 feet per second (1.83 meters per second). Suction velocity for all piping must not exceed 6 feet per second (1.83 meters per second).

3. Piping around the spa which is subject to damage by freezing must be sloped for adequate drainage and supported at sufficiently close intervals so that sagging between supports will not trap water. Provisions must be made for expansion and contraction of pipes.

[Bd. of Health, Public Spa Reg. Art. 18 §§ 18.6-18.8, eff. 11-27-79]—(NAC A 11-2-88; 1-16-96)

NAC 444.484 Circulation and filtration. (NRS 439.200**,** 444.070**)** Public spas must be equipped with circulation and filtration equipment which meets the following criteria:

1. Circulation and filtration equipment must be of sufficient capacity to recirculate the entire spa water capacity at least once every 30 minutes, and must be capable of returning the spa water to a turbidity of 1.0 NTU's at least once during the 4 hours following the use of the spa by the largest number of bathers which its size permits.

2. Equipment must be provided with installation and operation instructions by those who furnish the equipment.

3. A pressure gauge with an appropriate range must be provided in connection with each filter.

4. A rate-of-flow indicator must be installed according to the manufacturer's instructions.

5. Materials used in the circulation system must comply with the applicable requirements of National Sanitation Foundation Standards 14 and 50 or, in the absence of any applicable or current standards, be approved by the health authority.

6. In climates in which freezing temperatures can be expected, the spa shell and appurtenances, piping, filter system, pump and motor, and other components must be designed and constructed to be protected from damage from freezing.

7. A spa which does not have a water recirculation system for purification may be used by only one person, after which the spa must be drained and the walls scrubbed and disinfected.

8. A vacuum gauge must be located on or just before the circulation pump on the suction side and a pressure gauge must be located immediately after the pump on the pressure side.

9. The recirculation system must be operated at all times the facility is open for use and for not less than 3 hours after the facility is closed. If the system is shut down for periodic maintenance and repair, no person who is not an employee of the facility may be allowed into the facility.

10. If time clocks are used to govern the operation of the recirculation system, they must be:

(a) Used to govern the operation of any equipment, such as chemical disinfectant feeders, slurry feeders or heaters, dependent upon the flow of water within the system.

(b) Reset immediately after any interruption in power.

[Bd. of Health, Public Spa Reg. Art. 19, eff. 11-27-79]—(NAC A 11-2-88)

NAC 444.486 Pumps. (NRS 439.200**,** 444.070**)**

1. A pump and motor must be provided for circulation of the spa water. All pumps must provide the conditions of flow required for filtering and cleaning the filters against the total dynamic head developed by the complete system.

2. With all pressure filter systems, a suitable removable strainer or screen must be provided before circulation pumps to remove debris, hair, lint and other solids. Water entering the pump must first pass through the screen.

3. Pumps must be designed to perform the functions for which they are intended. Units must be accessible for inspection and service. Replacement parts must fit with existing parts in the pump without the need for redrilling mounting holes or otherwise altering the replacement part of the pump.

4. The pump and component parts must be designed and constructed to operate safely.

5. Proper direction of rotation for the pump must be clearly indicated by an arrow on the pump data plate, on a separate plate attached to the pump, or cast into the pump itself.

6. Pumps used on spas must be designated by the NSF International as complying with all applicable requirements of NSF International Standard 50 or, in the absence of applicable requirements, be approved by the health authority.

7. Hydrotherapy pumps and piping systems must be independent and must not be interconnected with the filtration plumbing system.

[Bd. of Health, Public Spa Reg. Art. 22 §§ 22.1-22.5, 22.10 & 22.11, eff. 11-27-79]—(NAC A 11-2-88; 1-16-96)

NAC 444.488 Pump motors. (NRS 439.200**,** 444.070**)**

1. All motors must have as a minimum an open drip-proof enclosure, as defined by National Electrical Manufacturers' Association standards, and be constructed electrically and mechanically so they will perform satisfactorily and safely under the conditions of load and environment normally encountered in spa installations.

2. Motors must be capable of operating pumps under full load, and must have as a minimum a 1.15 service factor. If the maximum service factor of the motor is exceeded at full voltage, the manufacturer shall indicate this on the pump curve.

3. All motors must have thermal overload protection and locked rotor protection, or equivalent, built in or in the line starter, to provide locked rotor and running protection.

4. The motor frame must include adequate provisions for proper grounding.

[Bd. of Health, Public Spa Reg. Art. 22 §§ 22.6-22.9, eff. 11-27-79]

NAC 444.490 Valves. (NRS 439.200**,** 444.070**)**

1. When a pump is installed below the overflow rim of the spa, valves must be installed on permanently connected suction and discharge lines and located in an accessible place outside the walls of the spa.

2. All valves must be located where they will be readily and easily accessible for maintenance and removal.

3. Multiport valves must be designated by the NSF International as complying with all applicable requirements of NSF International Standard 50 or, in the absence of applicable requirements, be approved by the health authority.

[Bd. of Health, Public Spa Reg. Art. 23, eff. 11-27-79]—(NAC A 11-2-88; 1-16-96)

NAC 444.492 Overflow systems. (NRS 439.200**,** 444.070**)**

1. An overflow system must be provided unless the spa does not have a water recirculation system and the procedures required by subsection 7 of NAC 444.484 are used.

2. The overflow system must be designed and constructed so that the water level of the spa is maintained at the operating level of the rim or weir device.

[Bd. of Health, Public Spa Reg. Art. 20 §§ 20.1 & 20.2, eff. 11-27-79]

NAC 444.494 Skimmers. (NRS 439.200**,** 444.070**)**

1. When surface skimmers are used as the sole overflow system, at least one surface skimmer must be provided for each 100 square feet (9.03 square meters), or fraction thereof, of the surface area of the water. When two or more skimmers are used in a spa, they must be located to maintain effective skimming action over the entire surface area of the water.

2. The total capacity of all skimmers must be at least two-thirds of the required recirculation flow.

3. In outdoor spas, one skimmer must be placed at a point away from the direction from which prevailing winds blow, if the surface area of the water is greater than 100 square feet (9.03 square meters).

4. Skimmers must comply with all applicable requirements of NSF International Standard 50 or, in the absence of any current or applicable standards, be approved by the health authority.

5. All skimming devices must be equipped with an approved equalizer valve and equalizer line with an inside diameter of at least 2 inches (5.08 centimeters) installed at least 12 inches (30.48 centimeters) below the normal operating level of the water. The inlet to the equalizer line or lines must be designed to prevent the creation of a holding force whenever the body or limb of a bather comes into direct contact with the inlet. The inlet must be protected by a grill or shroud that will prevent a bather or any limb of a bather from entering the inlet.

[Bd. of Health, Public Spa Reg. Art. 20 §§ 20.3-20.5, eff. 11-27-79]—(NAC A 11-2-88; 1-16-96)

NAC 444.496 Filters. (NRS 439.200**,** 444.070**)**

1. Filters must be designed to maintain spa water under anticipated operating conditions in accordance with NAC 444.484.

2. Filters must be designed so that filtration surfaces can be easily restored to design capacity, inspected and serviced.

3. Separate filter, recirculation and chlorination systems must be provided for each spa and must be independent of any adjacent swimming pool or spa.

4. A means must be provided to permit release of air which enters the filter tank. This may be automatic, manual, or, when upflow design is used, air must be expelled through the filter tank. Any filters incorporating an automatic internal air release as the principal means of air release must have lids which provide a slow and safe release of pressure as a part of its design. Any separation tank used in conjunction with a filter tank must have, as part of its design, a manual means of air release or a lid which provides a slow and safe release of pressure as it is opened. Each separation tank must have a cautionary statement warning the user not to start up the filter pump without first opening the air release. The statement must be visible and noticeable within the area of the air release.

5. Piping furnished with the filter must be of suitable material capable of withstanding three times the working pressure. The suction piping must not collapse when there is a complete shutoff of flow on the suction side of the pump.

6. Filter components which require servicing must be accessible and available for inspection and repair when installed according to the manufacturer’s instructions.

7. All filters must meet the applicable standards adopted by the National Sanitation Foundation.

8. When the filter is regenerated by backwashing, provisions must be made to dispose of the backwash water in a sanitary manner and without undue labor.

[Bd. of Health, Public Spa Reg. Art. 21, eff. 11-27-79]

NAC 444.498 Disposal of wastewater. (NRS 439.200**,** 444.070**)**

1. Provisions must be made for disposing of material cleaned from filters and of backwash water in a manner which will not create a nuisance. The backwash water must be disposed of in accordance with applicable local law and regulation.

2. When drainage to a sanitary sewer or storm sewer is permitted, an air gap must be provided which will prevent any surge or backflow of contaminated water into the spa or the recirculation system.

3. Disposal of diatomaceous earth must be made so that no solids appear in the wastewater. This may be done by using a separation tank, stand trap, or any other method approved by the health authority.

[Bd. of Health, Public Spa Reg. Art. 26, eff. 11-27-79]

NAC 444.500 Air induction systems. (NRS 439.200**,** 444.070**)** An air induction system must totally prevent water backup which could cause electrical shock hazards.

[Bd. of Health, Public Spa Reg. Art. 24, eff. 11-27-79]

NAC 444.502 Disinfectant required. (NRS 439.200**,** 444.070**)** A means for disinfecting the spa water which provides a residual of disinfectant in the spa water must be employed. Chlorine or chlorine compounds are most frequently used for the purpose of disinfecting but another bactericidal agent may be accepted if it is registered with the United States Environmental Protection Agency and the Nevada State Department of Agriculture.

[Bd. of Health, Public Spa Reg. Art. 25 § 25.1, eff. 11-27-79]

NAC 444.504 Disinfectants: Approved chemical feeders. (NRS 439.200**,** 444.070**)** The spa must be equipped with a chlorinator, hypochlorinator or other disinfectant feeder or feeders which meet the following standards:

1. All chemical feeding equipment and process equipment, except for feeding equipment for chlorine gas, must be designated by the NSF International as complying with all applicable requirements of NSF International Standard 50 or, in the absence of applicable requirements, be approved by the health authority.

2. Chemical feeding equipment must be capable of supplying at least the equivalent of 3 pounds (1.4 kilograms) of chlorine per 24 hours per 10,000 gallons (37,850 liters) of spa capacity for outdoor spas, and the equivalent of 1 pound (454 grams) of chlorine per 24 hours per 10,000 gallons (37,850 liters) of spa capacity for indoor spas.

3. Other disinfectant feeders may be approved if it can be demonstrated to the health authority that the required disinfectant residuals can be maintained. The material used must be subject to a simple testing procedure which will permit a ready means of determining the residual disinfectant in the water at the site of the spa.

4. Disinfectant feeders must be installed to ensure that the flow of the chemical disinfectant will stop immediately if there is an interruption in the flow of water to the pool or through the disinfection system.

[Bd. of Health, Public Spa Reg. Art. 25, §§ 25.2-25.2.2, eff. 11-27-79]—(NAC A 11-2-88; 1-16-96)

NAC 444.506 Disinfectants: Use of chlorine gas. (NRS 439.200**,** 444.070**)**

1. Where equipment for the use of chlorine gas is provided, the mechanical proportioning device, required scales and cylinders of chlorine must be housed above grade in a reasonable

gas-tight room which is mechanically vented and constructed of materials which are resistive to corrosion, and which is equipped with a door which opens outward to the outside.

2. Facilities in which chlorine gas is used must be provided with:

(a) Equipment for fastening chlorine cylinders firmly in place.

(b) Keys or valves on chlorine cylinders to permit quick shutoff in case of emergency.

(c) A chlorine feeding device which will vent leaking chlorine gas to the outside and away from the spa during emergencies and interruptions in the water supply.

(d) An airtight duct beginning near the floor of the room and ending at a safe point of discharge at least 8 feet (2.44 meters) above the surrounding grade outside.

(e) A mechanical exhaust system capable of providing at least one air change per minute in the room.

(f) An observation window at least 18 square inches (116.14 square centimeters) which provides a good view of the inside of the chlorine room.

(g) Artificial illumination of at least 20 foot-candles which permits a person to observe and maintain equipment in the room.

(h) Switches for the control of artificial lighting and ventilation, located outside the room and near the door.

(i) A gas mask designed for use in a chlorine atmosphere, of a type approved by an appropriate federal agency and stored in a closed, unlocked cabinet located outside the room with a replacement canister and a record book in which mask usage can be recorded.

(j) Personnel trained to the satisfaction of the health authority in handling chlorine and chlorination equipment.

(k) A means to keep the temperature inside the room housing the chlorine metering equipment at a minimum temperature of 55 degrees Fahrenheit (12.8 degrees Celsius).

(l) A sign stating “CAUTION - CHLORINE GAS” placed on the outside of the door to the chlorinator room.

(m) A leakage test kit consisting of ammonia water and a sponge swab.

(n) A placard posted outside the storage enclosure for cylinders of chlorine gas which has first-aid measures described on it and the telephone number of the supplier of the chlorine gas.

(o) A chlorine gas detector with an audible alarm for each storage enclosure for cylinders of chlorine gas.

[Bd. of Health, Public Spa Reg. Art. 25 §§ 25.3-25.3.10, eff. 11-27-79]—(NAC A 11-2-88)

NAC 444.507 Disinfectants: Storage of chlorine gas. (NRS 439.200**,** 444.070**)** Cylinders of chlorine gas must not be stored:

1. Where they are exposed to direct sunlight;

2. Where they are readily accessible to the public; or

3. In buildings where sleeping guests are housed.

(Added to NAC by Bd. of Health, eff. 11-2-88)

NAC 444.508 Disinfectants: Test equipment. (NRS 439.200**,** 444.070**)** Each spa must be provided with an approved test kit for the determination of pH, disinfectant residuals and total alkalinity. At spas where chlorinated cyanurates are used, a test kit must be provided for cyanuric acid concentrations.

[Bd. of Health, Public Spa Reg. Art. 25 § 25.6, eff. 11-27-79]

NAC 444.510 Heating units. (NRS 439.200**,** 444.070**)**

1. All heating units must be separated from the spa enclosure or protected to prevent injury to bathers and other persons.

2. Heater parts must be easily isolated and removed for cleaning.

3. The manufacturer's recommendations for manual bypass installation must be followed.

4. Temperature control must be maintained by thermostat.

[Bd. of Health, Public Spa Reg. Art. 15 §§ 15.2-15.3, eff. 11-27-79]

NAC 444.512 Equipment enclosure. (NRS 439.200**,** 444.070**)**

1. Filters, pumps, motors, chemical feeders and other accessory equipment must be enclosed in a protective enclosure.

2. Floor drainage must be provided within the protective enclosure.

3. Lighting and ventilation for enclosed rooms must be provided in the enclosure.

[Bd. of Health, Public Spa Reg. Art. 27, eff. 11-27-79]

Operation

NAC 444.520 Operating permits. (NRS 439.200**,** 444.070**,** 444.080**)**

1. No person may operate a public spa unless he has applied for and received an operating permit from the health authority.

2. Permits expire 1 year after the date of issue unless previously revoked for a violation of the statutes and regulations of the State Board of Health or the local board of health.

3. A temporary permit may be issued in exceptional cases for a limited time to permit management to make changes in order to comply with the minimum requirements. Safeguards must be provided to protect the health and safety of the bathers during the time that a temporary permit is in effect.

4. The permit must be posted in a conspicuous place at or near the office of each spa.

5. An operating permit is not transferable, and applies only to the public spa for which it is issued. When the spa is transferred or sold, the new owner must apply for and obtain a new operating permit from the health authority within 30 days of the sale or transfer.

[Bd. of Health, Public Spa Reg. Art 3 §§ 3.1, 3.1.2, 3.1.3 & 3.1.5, eff. 11-27-79]

NAC 444.521 Fees for permits and review of plans. (NRS 439.150**,** 439.200**,** 444.070**,** 444.080**)**

1. The Health Division shall charge and collect $332 for each annual permit to operate a public spa, except in areas where the laws and regulations governing public spas are administered by local health authorities.

2. The Health Division shall charge and collect $370 for reviewing plans for a new public spa, except in areas where the laws and regulations governing public spas are administered by local health authorities.

3. The Health Division shall charge and collect $285 for reviewing plans for a remodeled public spa which has a permit, except in areas where the laws and regulations governing public spas are administered by local health authorities.

(Added to NAC by Bd. of Health, eff. 7-20-82; A 6-23-86; 7-22-87; 8-31-89; 1-16-96; R193-03, 1-22-2004; R100-07, 10-31-2007)

NAC 444.522 Records. (NRS 439.200**,** 444.070**)**

1. A written record of all data pertaining to the operation and sanitation of a public spa must be maintained by the management and made available to the health authority at all times.

2. This record must include:

(a) Amounts of various chemicals used daily;

(b) The approximate amount of water added each day;

(c) A daily check of water temperature;

(d) Results of chemical tests for pH and chlorine;

(e) Date on which the spa was emptied or the filters were cleaned;

(f) Flowmeter readings;

(g) Names of all attendants; and

(h) Any other information which the health authority requires.

[Bd. of Health, Public Spa Reg. Art. 5, eff. 11-27-79]

NAC 444.524 Heater and temperature requirements. (NRS 439.200**,** 444.070**)**

1. Water temperature in a therapy pool must be maintained above 70°F (21.11°C), and must not be artificially heated above 104°F (40.0°C).

2. Signs must be posted which state that:

EXTENDED EXPOSURE TO HOT WATER OR VAPORS MAY BE DETRIMENTAL TO THE HEALTH OF ELDERLY PERSONS AND PERSONS WITH HEART CONDITIONS, DIABETES, OR HIGH OR LOW BLOOD PRESSURE.

[Bd. of Health, Public Spa Reg. Art. 15 §§ 15.1 & 15.1.1, eff. 11-27-79]

NAC 444.526 Safety requirements. (NRS 439.200**,** 444.070**)**

1. The spa must be free of protrusions, extensions, means of entanglement or other obstructions which might cause submerged entrapment of, or injury to, a bather.

2. Except as otherwise provided in subsection 7 of NAC 444.484, no person may use a spa alone. No children 12 years of age or younger who are not supervised by an adult may use a spa.

3. Spa covers and solar blankets may only be used when the spa is closed unless the spa cover or solar blanket is secured around the entire spa perimeter and is designed and able to support the weight of an adult person.

4. A sign with at least 4-inch letters on a contrasting background must be posted near the spa which indicates that children 12 years of age or younger must be supervised by an adult and that the maximum recommended time for such children to use the spa is 10 minutes.

[Bd. of Health, Public Spa Reg. Art. 28 §§ 28.1 & 28.4, eff. 11-27-79]—(NAC A 11-2-88; 1-16-96)

NAC 444.528 First aid. (NRS 439.200**,** 444.070**)**

1. Each spa or spa facility must be equipped with a standard 16-unit first-aid kit which must be kept filled and ready for use at a convenient place near the spa.

2. The person who is in charge of the spa must have completed a course in standard first aid which is acceptable to the health authority.

[Bd. of Health, Public Spa Reg. Art. 25 §§ 25.4 & 25.5, eff. 11-27-79]—(NAC A 11-2-88)

NAC 444.530 Notices which must be posted. (NRS 439.200**,** 444.070**)**

1. Placards directing behavior of bathers must be prominently posted in locker rooms, offices, showers, toilets or elsewhere about the spa enclosure.

2. A sign must be posted in the immediate vicinity of the spa, stating the location of the nearest telephone with the information that emergency telephone numbers are posted on or near the telephone.

3. Emergency telephone numbers must be posted on or near the telephone and must include:

(a) The name and telephone number of the police, fire and rescue unit responsible for serving the spa.

(b) The name and telephone number of the nearest available physician.

(c) The name and telephone number of the nearest ambulance service.

(d) The name and telephone number of the nearest available hospital.

(e) In lieu of the telephone numbers listed in paragraphs (a) to (d), inclusive, the number for the emergency 911 service if that emergency service is available in the geographical area of the spa.

[Bd. of Health, Public Spa Reg. Art. 3 § 3.1.4 + Art. 28 §§ 28.5-28.5.4, eff. 11-27-79]—(NAC A 1-16-96)

NAC 444.532 Health requirements. (NRS 439.200**,** 444.070**)**

1. No person who has any communicable disease may be employed in any capacity at any public spa.

2. Any person who is or suspected by the health authority or the management to be afflicted with an infectious disease or suffering from a cough, cold, fever or sores, must be excluded from the spa area.

3. Any person who is suspected by the operator of being under the influence of alcohol, drugs or the like must not be permitted to enter the spa.

4. Since high temperature, the presence of excess oil on the skin and difficulties of maintaining a chlorine residual enhance the possibility of microbial growth and disease transmission, no person may be allowed to enter a spa which maintains less than 1.0 ppm (1.0 mg/l) of free chlorine.

[Bd. of Health, Public Spa Reg. Art. 29, eff. 11-27-79]

NAC 444.534 Capacity. (NRS 439.200**,** 444.070**)**

1. The number of persons allowed to enter a spa must be limited to a number which allows 10 square feet (0.93 square meters) of water surface area for each person using the spa.

2. A sign must be posted within the spa area which states the maximum number of people allowed in the spa at one time.

[Bd. of Health, Public Spa Reg. Art. 30, eff. 11-27-79]

NAC 444.536 Visitor and spectator areas; food and drink. (NRS 439.200**,** 444.070**)**

1. Spaces used by visitors and spectators must be separated from spaces used by bathers.

2. Food or drink must not be permitted in the immediate area of the spa or on the deck which surrounds it.

[Bd. of Health, Public Spa Reg. Art. 16, eff. 11-27-79]

Violations

NAC 444.540 Notice of violation. (NRS 439.200**,** 444.070**)** When the health authority inspects a public spa and finds a violation of the provisions of NAC 444.310 to 444.546, inclusive, which does not seriously endanger the public health, he shall issue a written notice of the violation to the owner or his representative and give a reasonable time for correction.

[Bd. of Health, Public Spa Reg. Art. 4 § 4.1, eff. 11-27-79]

NAC 444.542 Suspension or denial of operating permit. (NRS 439.200**,** 444.070**,** 444.080**,** 444.100**)**

1. The health authority may order a suspension of an operating permit, and order the owner or operator of a public spa to prohibit persons from using it if he finds:

(a) A failure of spa equipment, structure, area or enclosure which endangers the health or safety of the persons using or operating it.

(b) That the spa lacks properly functioning equipment or proper material for recirculating, treating or testing the spa water.

(c) That the operator of the spa is not maintaining the required water quality.

(d) That the operator does not have a valid operating permit.

(e) Serious or repeated violations of any of the requirements of NAC 444.310 to 444.546, inclusive, or interference with the health authority in the performance of his duties.

2. The health authority may deny an application for an operating permit if the applicant fails to:

(a) Notify the health authority before construction and completion of the facility or bathing place;

(b) Allow inspection of the public bathing or swimming facility or natural bathing place during or after its construction; or

(c) Follow any of the requirements set forth in NRS 444.065 to 444.120, inclusive, and NAC 444.310 to 444.546, inclusive.

[Bd. of Health, Public Spa Reg. Art. 4 §§ 4.2 & 4.2.1-4.2.5, eff. 11-27-79]—(NAC A 10-30-97)

NAC 444.544 Order for closure; revocation of suspended permit. (NRS 439.200**,** 444.070**,** 444.100**)**

1. The health authority may close public spas which are not operating according to the provisions of NAC 444.310 to 444.546, inclusive.

2. When the health authority orders the closing of a public spa, he shall issue a written order to the spa owner or operator or his representative stating the particular reason or reasons for the order of closure, along with the finding that the condition or conditions giving rise to the order represent a serious threat to the public health and safety.

3. The order must state that the spa is to be closed immediately and specify the corrective action necessary for the reinstatement of the operating permit.

4. The health authority shall serve the order upon the owner, operator, representative or a person in charge of the public spa. The person on whom the order is served shall close the spa immediately and shall prohibit any person from using it.

5. The owner, operator or representative of the person in charge of a public spa who has his permit suspended must comply with the requirements of the written notice of suspension within the time stated in the notice. If the corrections ordered in the notice are not made within the time allowed, the permit to operate may be revoked.

[Bd. of Health, Public Spa Reg. Art 4 § 4.3, eff. 11-27-79]—(NAC A 11-2-88; 10-30-97)

NAC 444.545 Procedure for review of actions taken by Health Division; appeals. (NRS 439.200**,** 444.070**,** 444.100**)**

1. A person who has reason to believe that an action taken by the Health Division pursuant to NAC 444.310 to 444.546, inclusive, is incorrect or based on inadequate knowledge may, within 10 business days after receiving notice of the action, request an informal discussion with the employee responsible for the action and the immediate supervisor of the employee.

2. If the informal discussion does not resolve the problem, the aggrieved person may, within 10 business days after the date scheduled for the informal discussion, submit a written request to the Bureau for an informal conference. The informal conference must be scheduled for a date, place and time mutually agreed upon by the aggrieved person and the Bureau, except that the

informal conference must be held no later than 60 days after the date on which the Bureau received the written request.

3. Except as otherwise provided in subsection 4, the determination of the Bureau resulting from the informal conference cannot be appealed and is the final remedy available to the aggrieved person.

4. An applicant for or holder of a permit or license issued pursuant to NAC 444.310 to 444.546, inclusive, who is aggrieved by an action of the Health Division relating to the denial of an application for or renewal of such a permit or license or the suspension or revocation of such a permit or license may appeal that action in accordance with NAC 439.300 to 439.395, inclusive, after exhausting the informal procedures set forth in this section, except that the Bureau may waive the informal procedures, or any portion thereof, by giving written notice to the aggrieved person.

5. As used in this section, "Bureau" means the Bureau of Health Protection Services of the Health Division or its successor.

(Added to NAC by Bd. of Health, eff. 10-30-97)

NAC 444.546 Reinspection. (NRS 439.200**,** 444.070**,** 444.100**)**

1. After corrective action has been taken, the owner or operator or his representative shall notify the health authority that the spa is ready for reinspection.

2. If upon reinspection the corrective action is approved, the health authority may order the reinstatement of the operating permit, at which time the spa may be opened for use.

3. If upon reinspection the corrective action is not approved, the operating permit must remain suspended and the spa must be kept closed and out of use until corrections are approved.

[Bd. of Health, Public Spa Reg. Art. 4 §§ 4.4-4.6, eff. 11-27-79]