Memorandum # 01-17

Date: August 24, 2017

To: SOUTHERN NEVADA DISTRICT BOARD OF HEALTH

From: **Jacquelyn Raiche-Curl, R.E.H.S.,** *Environmental Health Supervisor*
Jeremy Harper, R.E.H.S., *Environmental Health Supervisor*
Paul Klouse, R.E.H.S., *Environmental Health Manager*
Jacqueline Reszetar, R.E.H.S., M.S., *Director, Environmental Health Division*
Andy Glass, *Director, Administration*
Joseph Iser, M.D., Dr.P.H., MSc, *Chief Health Officer*

Subject: Adoption of the Proposed Aquatic Facility Regulations

I. BACKGROUND:

The Chief Health Officer of the Southern Nevada Health District, who serves as at the discretion of the Southern Nevada District Board of Health, which serves as the regulatory authority for aquatic facilities in Clark County, directed staff to develop Aquatic Facility Regulations based on the CDC's Model Aquatic Health Code.

The purpose of these Regulations is to protect and promote the public health and safety in association with the operation and maintenance of public swimming pools, spas, natural bathing places and other aquatic venues and facilities in Clark County.

The newly proposed regulations follow a new format and include the following sections:

Section 1	Glossary
Section 2	Facility Design and Construction
Section 3	Facility Operation and Maintenance
Section 4	Policies and Management
Section 5	Compliance and Enforcement

II. PUBLIC REVIEW AND WORKSHOPS:

The September 27, 2016 Public Notice (Attachment B) announcing the January Public Hearing to be held at the Southern Nevada Health District (SNHD) and the two (2) public workshops scheduled for October 17, 2016 and one (1) public workshop scheduled for October 20, 2016 was posted in the lobbies at the Clark County Government Center, the Las Vegas City Hall, the Henderson City Hall, the North Las Vegas City Hall, the Mesquite City Hall, the City of Boulder

City-City Hall, the Laughlin Regional Government Center, and the SNHD Decatur Public Health Center and on the SNHD Internet website and the State of Nevada Public Notice website; and advertised in the LAS VEGAS REVIEW JOURNAL. The notice provided dates and times for the hearings and workshops, and instructions on how to provide comments to the SNHD Environmental Health Division in person, via e-mail or in writing by postal mail.

Three (3) Public Workshops were held; October 17, 2016 and October 20, 2016 at the SNHD Decatur location in Las Vegas. Members of the regulated community attended some of the workshops and provided verbal comments which were considered for incorporation in the final regulations.

An additional set of Public Workshops were scheduled and announced in the October 31, 2016 Public Notice (Attachment C) announcing the January Public Hearing to be held at the Southern Nevada Health District (SNHD) and the one (1) public workshop scheduled for November 18, 2016 and two (2) public workshops scheduled for November 28, 2016 was posted in the lobbies at the Clark County Government Center, the Las Vegas City Hall, the Henderson City Hall, the North Las Vegas City Hall, the Mesquite City Hall, the City of Boulder City-City Hall, the Laughlin Regional Government Center, and the SNHD Decatur Public Health Center and on the SNHD Internet website and the State of Nevada Public Notice website; and advertised in the LAS VEGAS REVIEW JOURNAL. The notice provided dates and times for the hearings and workshops, and instructions on how to provide comments to the SNHD Environmental Health Division in person, via e-mail.

An additional three (3) Public Workshops were held; November 18, 2016 and November 28, 2016 at the SNHD Decatur location in Las Vegas. An audio tape was made of each of the proceedings and verbatim testimony was transcribed of each workshop with the public in attendance. Members of the regulated community attended some of the workshops and provided verbal comments which were considered for incorporation in the final regulations.

Written comments submitted by e-mail were received during the public comment period, given careful consideration, and comments that benefitted public health and safety in association with Aquatic Health Facilities were incorporated into the Regulations. A table containing a list of comments relating to specific sections of the regulations that were received and the associated responses is provided in Attachment D.

A Business Impact Survey was mailed to each aquatic facility permit holder and each certified pool company for a total of 2,122 recipients. Participants had the option of submitting surveys online, via email, postal mail or by dropping them of in person at a District location. There were 485 responses to the survey received.

As part of the Business Impact Survey, a properly-noticed public meeting was held on April 27th to receive any additional comments or concerns regarding the impact the proposed regulations may have on businesses.

III. SUMMARY:

These Regulations contain updated requirements for aquatic health facilities. Some of these include:

- Eliminates cross jurisdictional conflicts.

- Includes provisions that will eliminate a number of common design variance applications.
- Uses modern Aquatic Health terminology and accounts for modern aquatic venue designs.
- Based on current science for the determination of disinfection requirements, turnover rates, secondary and supplemental disinfection systems and cyanuric acid levels.
- Establishes a procedure for operators to utilize unique business strategies provided that all public health and safety concerns are addressed through the administrative waiver process.
- Provides a decommissioning process for permitted aquatic venues.

IV. RECOMMENDATION:

Staff recommends the approval of the proposed Aquatic Facilities Regulations. Staff proposes that these Regulations take effect 60 days following the approval from the Southern Nevada District Board of Health, or immediately upon approval by the Nevada State Board of Health. Existing facilities with an active permit will not be held accountable to new structural or operational requirements until January 1, 2018, unless the regulation specifies a compliance date that provides for additional time to meet new regulatory requirements.

V. ATTACHMENTS:

Attachment A: Proposed Aquatic Facility Regulations
Attachment B: Business Impact Statement and Survey Results
Attachment C: Red line Draft Aquatic Facility Regulations
Attachment D: Side by side comparison of the proposed regulations with the existing NAC
Attachment E: Outline of public comments received and SNHD's responses
Attachment F: Public Notices for BOH meeting and Public Workshops
Attachment G: Meeting minutes from all Public workshops held

ATTACHMENT

A

SOUTHERN NEVADA HEALTH DISTRICT
AQUATIC FACILITY REGULATIONS

Adopted_____date_____

Southern Nevada Health District
PO Box 3902
Las Vegas, NV 89127
(702) 759-1000
www.SNHD.info

SOUTHERN NEVADA HEALTH DISTRICT
AQUATIC FACILITY REGULATIONS

PREAMBLE

WHEREAS, the Southern Nevada Health District is a public health authority organized pursuant to Nevada Revised Statutes, Chapter 439 with jurisdiction over all public health matters within Clark County, Nevada; and

WHEREAS, the Southern Nevada District Board of Health (Board) is the Southern Nevada Health District's governing body, and is authorized to adopt regulations to protect and promote public health and safety in the interest of public health in the geographical area subject to its jurisdiction; and

WHEREAS, in accordance with the authority granted pursuant to Nevada Revised Statutes Chapter 439 and Chapter 444, the Board hereby adopts regulations to attain uniform, minimum standards for the operation and maintenance of public swimming pools, spas, natural bathing places, and other public aquatic venues and facilities in Clark County, Nevada, and to assure a clean, healthful, and safe environment for all bathers using these pools; and

WHEREAS, these Regulations in no way preclude a facility from establishing additional rules and operating procedures as long as they do not contradict those established herein.

WHEREAS, the Board does therefore publish, promulgate and order compliance within Clark County, Nevada with the substantive and procedural requirements hereinafter set forth.

AQUATIC FACILITIES REGULATION

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SECTION 1 Glossary

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1-1 Acronyms and Initialisms
1-2 Definitions

1-1 Acronyms and Initialisms

Subpart
1-101 Acronyms and Initialisms

1-101 Acronyms and Initialisms

Acronym/ Initialism	Meaning
AED	Automated External Defibrillator
ANSI	American National Standards Institute
ASTM	American Society for Testing and Materials
CDC	Centers for Disease Control and Prevention
CPSC	Consumer Product Safety Commission
CYA	Cyanuric Acid
DVGW	Deutscher Verein des Gas- und Wasserfaches e.V. – Technisch wissenschaftlicher Verein (German Technical and Scientific Association for Gas and Water)
GPM	Gallons Per Minute
MAHC	Model Aquatic Health Code
NCAA	National Collegiate Athletic Association
NEC	National Electrical Code
NRTL	Nationally Recognized Testing Laboratory
NSF	National Sanitation Foundation
OEM	Original Equipment Manufacturer
ÖNORM	Österreichisches Normungsinstitut (Austrian Standards Institute)
OSHA	Occupational Safety and Health Administration
PPE	Personal Protective Equipment
PPM	Parts Per Million
PVC	Polyvinyl Chloride
PVC-P	Plasticized Polyvinyl Chloride
RPZ	Reduced Pressure Zone
RWI	Recreational Water Illness
SDS	Safety Data Sheet
TDH	Total Dynamic Head
TDS	Total Dissolved Solids
UL	Underwriter Laboratories
VFD	Variable Frequency Drive

1-2 Definitions
Subpart 1-201 Glossary Terms

1-201 Glossary Terms

"ACTIVITY POOL" see "POOL"

"AGITATED WATER" see "THEORETICAL PEAK OCCUPANCY"

"AIR HANDLING SYSTEM" means equipment that brings outdoor air into a building and removes air from a building for the purpose of introducing air with fewer contaminants and removing air with contaminants created while BATHERS are using AQUATIC VENUES. The system contains components that move and condition the air for temperature, humidity, and pressure control, and transport and distribute the air to prevent condensation, corrosion, and stratification, provide acceptable indoor air quality, and deliver outside air to the breathing zone.

"APPROVED" means acceptable to the HEALTH AUTHORITY based on compliance with the law, conformance with appropriate, accepted, or recognized industry standards and good public health practice.

"AQUATIC FACILITY" means a physical place that contains one or more AQUATIC VENUES and support infrastructure.

- "INDOOR AQUATIC FACILITY" means a physical place that contains one or more AQUATIC VENUES and the surrounding BATHER and SPECTATOR/STADIUM SEATING areas within a structure that meets the definition of "building" per the 2012 International Building Code. It does not include equipment, chemical storage, or BATHER hygiene rooms or any other rooms with a direct opening to the AQUATIC FACILITY.

"AQUATIC FEATURE" means an individual component within an AQUATIC VENUE. Examples include SLIDES, structures designed to be climbed or walked across, and structures that create falling or shooting water.

"AQUATIC VENUE" means an artificially constructed structure or modified natural structure where the general public is exposed to water intended for recreational or therapeutic purpose. Such structures do not necessarily contain standing water, so water exposure may occur via contact, ingestion, or aerosolization.

- "INCREASED RISK AQUATIC VENUE" means an AQUATIC VENUE which, due to its intrinsic characteristics and intended use has a greater likelihood of affecting the BATHERS of that venue by being at increased risk for microbial contamination (e.g., by children less than five (5) years old) or being used by people that may be more susceptible to infection (e.g., therapy patients with open wounds). Examples of INCREASED-RISK AQUATIC VENUES include spray pads, WADING POOLS, CHILD AMUSEMENT LAGOONS, and other AQUATIC VENUES designed for children less than five (5) years old as well as THERAPY POOLS.
- "INTERACTIVE WATER PLAY AQUATIC VENUE" means any indoor or outdoor installation that includes sprayed, jetted or other water sources contacting BATHERS and not incorporating standing or captured water as part of the BATHER activity area. These AQUATIC VENUES are also known as splash pads or spray pads. For the purposes of

these Regulations only those designed to recirculate water and intended for public use and recreation shall be regulated.

- **"LAZY RIVER"** means a channeled flow of water of near constant depth in which the water is moved by pumps or other means of propulsion to provide a river like flow that transports BATHERS over a defined path. A LAZY RIVER may include AQUATIC FEATURES and devices. A LAZY RIVER may also be referred to as a tubing POOL, leisure river, leisure POOL or a current channel.
- **"SPA"** means a structure intended for either warm or cold water where prolonged exposure is not intended. SPA structures are intended to be used for bathing or other recreational uses and are not drained and refilled after each use. It may include hydrotherapy jets and air induction bubbles.
- **"SPECIAL USE AQUATIC VENUE"** means AQUATIC VENUES that do not meet the intended use and design features of any other AQUATIC VENUE or POOL listed/identified in these Regulations.

"ARTIFICIAL SWIMMING LAGOON" means an artificial body of water with more than 10,000 square feet of water surface area that is intended to be used by persons for swimming or bathing and that is constructed with special features to imitate a NATURAL BATHING PLACE.

"ATTENDANT" means an employee who monitors and controls the flow of BATHERS at the entrance and exits of aquatic attractions such as WAVE POOLS, LAZY RIVERS, SLIDES and FLUMES.

"AUTOMATED CONTROLLER" means a system of at least one chemical probe, a controller, and an auxiliary or integrated component that senses the level of one or more water parameters and provides a signal to other equipment to maintain the parameters within a user-established range.

"AVAILABLE CHLORINE" see **"CHLORINE"**

"BACKFLOW" means a hydraulic condition caused by a difference in water pressure that causes an undesirable reversal of the flow as the result of a higher pressure in the system than in its supply.

"BARRIER" means an obstacle intended to prevent direct access from one point to another.

"BATHER" means a person at an AQUATIC VENUE who has the potential of entering the body of water.

"BATHER COUNT" means the number of BATHERS in an AQUATIC VENUE at any given time.

"BATHER OCCUPANCY" means the total number of BATHERS in an AQUATIC FACILITY ENCLOSURE at any given time both in the water and on the DECK.

"BREAKPOINT CHLORINATION" means the conversion of inorganic CHLORAMINE compounds to nitrogen gas by reaction with FAC. When CHLORINE is added to water containing ammonia (from urine, sweat, or the environment), it initially reacts with the ammonia to form monochloramine. If more CHLORINE is added, monochloramine is converted into DICHLORAMINE, which decomposes into nitrogen gas, hydrochloric acid and CHLORINE. The apparent residual CHLORINE decreases since it is partially reduced to hydrochloric acid. The point at which the drop occurs is referred to as the "breakpoint." The amount of free CHLORINE that must be added to the water to achieve BREAKPOINT CHLORINATION is approximately ten times the amount of combined CHLORINE in the

water. As additional CHLORINE is added, all inorganic combined CHLORINE compounds disappear, resulting in a decrease in eye irritation potential and CHLORINE odors.

"BULKHEADS" means a movable partition that physically separates an AQUATIC VENUE into multiple sections.

"CHEMICAL STORAGE SPACE" means a space in an AQUATIC FACILITY used for the storage of AQUATIC VENUE chemicals such as acids, salt, or corrosive or oxidizing chemicals.

"CHILD AMUSEMENT LAGOON" see **"POOL"**

"CHLORAMINE" means a DISINFECTION BY-PRODUCT formed when CHLORINE binds to nitrogenous waste in AQUATIC VENUE water to form an amine-containing compound with one or more CHLORINE atoms, known as combined CHLORINE.

- **"DICHLORAMINE"** means a DISINFECTION BY-PRODUCT formed when CHLORINE binds to nitrogenous waste in AQUATIC VENUE water to form an amine-containing compound with two CHLORINE atoms ($NHCl_2$). It is a known acute respiratory and ocular irritant.
- **"TRICHLORAMINE"** means a DISINFECTION BY-PRODUCT formed when CHLORINE binds to nitrogenous waste in AQUATIC VENUE water to form an amine-containing compound with three CHLORINE atoms (NCl_3). It is a known acute respiratory and ocular irritant. It has low solubility in water and is rapidly released into the air above AQUATIC VENUES where it can accumulate, particularly in indoor settings.

"CHLORINE" refers to hypochlorous acid and hypochlorite ion in aqueous solution derived from CHLORINE gas or a variety of CHLORINE-based disinfecting agents.

- **"AVAILABLE CHLORINE"** means the amount of CHLORINE in the +1 OXIDATION state, which is the reactive or oxidized form. In contrast, a chloride ion (Cl^-) is in the -1 OXIDATION state, which is the inert or reduced state. AVAILABLE CHLORINE is subdivided into FAC and combined AVAILABLE CHLORINE. AQUATIC VENUE chemicals containing AVAILABLE CHLORINE are both oxidizers and DISINFECTANTS. Elemental CHLORINE (Cl_2) is defined as containing 100 percent AVAILABLE CHLORINE. The concentration of AVAILABLE CHLORINE in water is normally reported as PPM "as Cl_2", that is, the concentration is measured on a Cl_2 basis, regardless of the source of the AVAILABLE CHLORINE.
- **"FREE AVAILABLE CHLORINE or FAC"** means the portion of the total AVAILABLE CHLORINE that is not "combined CHLORINE" and is present as hypochlorous acid (HOCl) or hypochlorite ion (OCl^-). The PH of the water determines the relative amounts of hypochlorous acid and hypochlorite ions. HOCl is a very effective bactericide and is the active bactericide in POOL water. OCl^- is also a bactericide, but acts more slowly than HOCl. Thus, CHLORINE is a more effective bactericide at low PH than at high PH. A FAC must be maintained for adequate DISINFECTION.

"CLEANSING SHOWER" see **"SHOWER"**

"COMBUSTION DEVICE" means any appliance or equipment using fire such as gas or oil furnaces, boilers, POOL heaters, domestic water heaters, etc.

"CONTAMINATION RESPONSE PLAN" means a plan for handling contamination from formed-stool, diarrheal-stool, vomit, and blood.

"CROSS-CONNECTION" means a connection or arrangement, physical or otherwise, between a potable water supply system and a PLUMBING FIXTURE, tank, receptor, equipment, or device, through which it may be possible for non-potable, used, unclean, polluted and contaminated water, or other substances to enter into a part of such potable water system under any condition.

"CT VALUE" means a representation of the concentration of the disinfectant (C) multiplied by time in minutes (T) needed for inactivation of a particular contaminant. The concentration and time are inversely proportional; therefore, the higher the concentration of the disinfectant, the shorter the contact time required for inactivation. The CT VALUE can vary with PH or temperature change so these values must also be supplied to allow comparison between values.

"DECK" means surface areas serving the AQUATIC VENUE, including the PERIMETER DECK, POOL DECK, and DRY DECK.

- **"DRY DECK"** means all pedestrian surface areas within the AQUATIC VENUE ENCLOSURE not subject to frequent splashing or constant wet foot traffic. The DRY DECK is not PERIMETER DECK or POOL DECK, which connect the AQUATIC VENUE to adjacent amenities, entrances, and exits. Landscape areas are not included in this definition.
- **"PERIMETER DECK"** means the hardscape surface area immediately adjacent to and within four (4) feet of the edge of the AQUATIC VENUE.
- **"POOL DECK"** means surface areas serving the AQUATIC VENUE, beyond PERIMETER DECK, which is expected to be regularly trafficked and made wet by BATHERS.

"DEEP WATER" means any part of an AQUATIC VENUE with a depth greater than five (5) feet.

"DESIGN PROFESSIONAL" means a Nevada licensed professional engineer or a Nevada registered architect. A licensed professional engineer or a registered architect shall include his or her seal and signature on any plans and specifications submitted to the HEALTH AUTHORITY.

"DESIGNATED WALKWAY" means an exterior or interior way of passage from one part of an AQUATIC FACILITY to another for pedestrians, including, but not limited to walkways, pathways, DECKS, and stairways.

"DICHLORAMINE" see **"CHLORAMINE"**

"DISINFECTION" means a treatment that kills or irreversibly inactivates microorganisms (e.g., bacteria, viruses, and parasites); in water treatment, a chemical (commonly CHLORINE, CHLORAMINE, or ozone) or physical process (e.g., UV radiation) can be used.

"DISINFECTION BY-PRODUCT" means a chemical compound formed by the reaction of a disinfectant (e.g. CHLORINE) with a precursor (e.g. natural organic matter, nitrogenous waste from BATHERS) in a water system (AQUATIC VENUE and water supply).

"DIVING POOL" see **"POOL"**

"DROP SLIDE" see **"SLIDE"**

"DRY DECK" see **"DECK"**

"EMERGENCY ACTION PLAN or EAP" means a plan that identifies the objectives that need to be met for a specific type of emergency, who will respond, what each person's role will be during the response, and what equipment is required as part of the response.

"ENCLOSURE" means an uninterrupted constructed feature or obstacle used to surround and secure an area that is intended to deter or effectively prevent unpermitted, uncontrolled, and unfettered access to an AQUATIC VENUE or FACILITY. It is designed to resist climbing (absence of handholds or footholds) and to prevent passage through it and under it.

"EPA REGISTERED" means all products regulated and registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) by the U.S. Environmental Protection Agency. EPA REGISTERED products will have a registration number on the label (usually it will state "EPA Reg No." followed by a series of numbers). This registration number can be verified by using the EPA National Pesticide Information Retrieval System.

"EQUIPMENT ROOM" means a space intended for the operation of pumps, filters, heaters, and controllers. This space is not intended for the storage of hazardous AQUATIC VENUE chemicals.

"EXIT GATE" means an emergency exit, which is a gate or door allowing free exit at all times.

"EXPANSION JOINT" means a watertight joint provided in an AQUATIC VENUE vessel used to relieve flexural stresses due to movement caused by thermal expansion/contraction.

"FLAT WATER" see **"THEORETICAL PEAK OCCUPANCY"**

"FLUME" means the riding channels of a WATERSLIDE which accommodate riders using or not using mats, tubes, rafts, and other transport vehicles as they slide along a path lubricated by a water flow.

"FOOT CANDLES" means a measurement of light equivalent to one lumen per square foot.

"FREE AVAILABLE CHLORINE or (FAC)" see **"CHLORINE"**

"GROUND-FAULT CIRCUIT INTERRUPTER or (GFCI)" means a device for protection of personnel that de-energizes an electrical circuit or portion thereof in the event of excessive ground current.

"HAND WASH STATION" means a location which has a hand washing sink, adjacent soap dispenser, paper towel dispenser or hand dryer, and trash receptacle.

"HEALTH AUTHORITY" means officers or agents of the Southern Nevada Health District.

"HOT WATER" see **"THEORETICAL PEAK OCCUPANCY"**

"HYGIENE FACILITY" means a structure or part of a structure that contains toilet(s), SHOWER(S), HAND WASH STATION(S), and dressing capabilities serving BATHERS and PATRONS at an AQUATIC FACILITY.

"HYGIENE FIXTURES" means all components necessary for HYGIENE FACILITIES including PLUMBING FIXTURES, HAND WASH STATIONS, trash receptacles, soap dispensers, paper towel dispensers or hand dryers, and toilet paper dispensers.

"IMMINENT HEALTH HAZARD" means a serious threat to public health or safety that is considered to exist when there is evidence sufficient to show that a product, practice, circumstance, or event creates a situation that requires immediate correction or cessation of operation to prevent injury based on the number of potential injuries and the nature, severity, and duration of the anticipated injury or illness.

"INDOOR AQUATIC FACILITY" see **"AQUATIC FACILITY"**

"INCREASED RISK AQUATIC VENUE" see **"AQUATIC VENUE"**

"INFINITY EDGE" means a POOL wall structure and adjacent PERIMETER DECK that is designed in such a way where the top of the POOL wall and adjacent DECK are not visible from certain vantage points in the POOL or from the opposite side of the POOL. Water from the POOL flows over the edge and is captured and treated for reuse through the normal POOL filtration system.

"INLET" means wall or floor fittings where treated water is returned to the AQUATIC VENUE.

"INTERACTIVE WATER PLAY AQUATIC VENUE" see **"AQUATIC VENUE"**

"INTERIOR SPACE" means any substantially enclosed space having a roof and having a wall or walls which might reduce the free flow of outdoor air. Ventilation openings, fans, blowers, windows, doors, etc., shall not be construed as allowing free flow of outdoor air.

"ISLAND" means a structure inside an AQUATIC VENUE where the perimeter is completely surrounded by water and the top is above the surface of the AQUATIC VENUE.

"ISOLATION AND FLOTATION UNIT" means a vessel that provides a light and/ or sound free environment, contains a saturated solution of sodium chloride or magnesium sulfate having a specific gravity of 1.27 to 1.3, and is maintained at a temperature of approximately 93.5°F. It may also be referred to as an isolation tank, pods, or flotation therapy.

"LANDING POOL" see **"POOL"**

"LAZY RIVER" see **"AQUATIC VENUE"**

"LIFEGUARD" means an individual who has successfully completed a recognized LIFEGUARD training course offered by a recognized training agency, holds a current certificate for such training, has met the pre-service requirements, and is participating in continuing in-service training requirements of the AQUATIC FACILITY.

"LIFEGUARD STATION" means a designated stand or roving zone established to monitor BATHERS in a body of water.

"LIFEGUARD SUPERVISOR" means an individual responsible for the oversight of LIFEGUARD performance and emergency response at an AQUATIC FACILITY.

"MONITORING" is the regular and purposeful observation and checking of systems or facilities and recording of data, including system alerts, excursions from acceptable ranges, and other facility issues. MONITORING includes human or electronic means.

"MOVEABLE FLOORS" means an AQUATIC VENUE floor whose depth varies through the use of controls.

"NATURAL BATHING PLACE" means any bathing place at a lake, pond, stream or similar body of water, together with any buildings and appurtenances used by the public for bathing or swimming with the express permission of the lessee or any person responsible for the premise; or advertised as a place for bathing or swimming for the public.

"NON-SUBSTANTIAL ALTERATION" means the addition or replacement of all or part of any structure, circulation system or appurtenance of an AQUATIC VENUE that is not addressed under SUBSTANTIAL ALTERATION.

"OOCYST" means the thick-walled, environmentally resistant structure released in the feces of infected animals that serves to transfer the infectious stages of sporozoan parasites (e.g., *Cryptosporidium*) to new hosts.

"OWNER" means any person, individual, partnership, corporation, company, association or like entity that owns, leases, or proposes to own or lease an AQUATIC VENUE or AQUATIC FACILITY.

"OXIDATION" means the process of changing the chemical structure of water contaminants by either increasing the number of oxygen atoms or reducing the number of electrons of the contaminant or other chemical reaction, which allows the contaminant to be more readily removed from the water or made more soluble in the water. It is the "chemical cleaning" of POOL water. OXIDATION can be achieved by common disinfectants (e.g., CHLORINE, bromine), SECONDARY DISINFECTION SYSTEMS (e.g. ozone) and oxidizers (e.g. potassium monopersulfate).

"OXIDATION REDUCTION POTENTIAL or ORP" means a measure of the tendency for a solution to either gain or lose electrons; higher (more positive) OXIDATION REDUCTION POTENTIAL indicates a more oxidative solution.

"PATRON" means a BATHER or other person at an AQUATIC FACILITY who may or may not have contact with AQUATIC VENUE water either through partial or total immersion. PATRONS may not have contact with AQUATIC VENUE water, but could still be exposed to potential contamination from the AQUATIC FACILITY air, surfaces, or aerosols.

"PENINSULA or WING WALL" means a structural projection into a POOL intended to provide separation within the body of water.

"PERIMETER DECK" see **"DECK"**

"PERIMETER GUTTER SYSTEM" means the alternative to SKIMMERS as a method to remove water from the POOL'S surface for treatment. The gutter provides a level structure along the POOL perimeter versus intermittent SKIMMERS.

"PERMIT" means the document issued by the HEALTH AUTHORITY that authorizes a person or authorized agent of the OWNER to operate an AQUATIC VENUE.

"PERMIT HOLDER" means the person or entity that is legally responsible for the operation of the AQUATIC FACILITY.

"PH" means the negative log of the concentration of hydrogen ions. When water ionizes, it produces hydrogen ions (H^+) and hydroxide ions (OH^-). If there is an excess of hydrogen ions the water is acidic. If there is an excess of hydroxide ions the water is basic. PH ranges from 0 to 14. Pure water has a PH of 7.0. If PH is higher than 7.0, the water is said to be basic, or

alkaline. If the water's PH is lower than 7.0, the water is acidic. As PH is raised, more ionization occurs and CHLORINE disinfectants decrease in effectiveness.

"PLUMBING FIXTURE" means a receptacle, fixture, or device that is connected to a water supply system or discharges to a drainage system or both and may be used for the distribution and use of water; e.g. toilets, urinals, SHOWERS, and hose bibs. Such receptacles, fixtures, or devices require a supply of water, discharge liquid waste or liquid-borne solid waste, or require a supply of water and discharge waste to a drainage system.

"POOL" means a subset of AQUATIC VENUES designed to have standing water for total or partial BATHER immersion. This does not include SPAS.

- **"ACTIVITY POOL"** means a water attraction designed primarily for play activity that uses constructed features and devices including pad walks, flotation devices, and similar attractions.
- **"CHILD AMUSEMENT LAGOON"** means a water attraction designed primarily for play activity that uses constructed features and devices including POOL SLIDES, shallow POOLS, children washes, and similar attractions, which are intended for use by young children.
- **"DIVING POOL"** means a POOL used exclusively for diving.
- **"LANDING POOL"** means an AQUATIC VENUE or designated section of an AQUATIC VENUE located at the exit of one or more WATERSLIDE FLUMES. The body of water is intended and designed to receive a BATHER emerging from the FLUME for the purpose of terminating the SLIDE action and providing a means of exit to a DECK or walkway area. Also known as a splash POOL or catch POOL.
- **"SKIMMER POOL"** means a POOL using a SKIMMER SYSTEM.
- **"SURF POOL"** means any POOL designed to generate waves dedicated to the activity of surfing on a surfboard or analogous surfing device commonly used in the ocean and intended for sport as opposed to the general play intent of WAVE POOLS.
- **"THERAPY POOL"** means a POOL used exclusively for aquatic therapy, physical therapy, and/or rehabilitation to treat a diagnosed injury, illness, or medical condition, wherein the therapy is provided under the direct supervision of a licensed physical therapist, occupational therapist, or athletic trainer. This could include wound patients or immunocompromised patients whose health could be impacted if there is not additional water quality protection.
- **"WADING POOL"** means any POOL used exclusively for walking through or sitting and intended for use by young children where the depth does not exceed two (2) feet.
- **"WAVE POOL"** means any POOL designed to simulate breaking or cyclic waves for the purposes of general play.

"POOL COMPANY" means any firm or self-employed individual engaged in providing POOL services at an AQUATIC FACILITY.

"POOL DECK" see **"DECK"**

"POOL SLIDE" see **"SLIDE"**

"QUALIFIED OPERATOR" means an individual, with an active HEALTH AUTHORITY registration, responsible for the operation and maintenance of the water systems and the associated infrastructure of the AQUATIC FACILITY. Examples of QUALIFIED OPERATOR responsibilities include: maintaining water quality, cleaning filters, maintaining equipment, and POOL appurtenances.

"RECESSED STEPS" means a way of ingress/egress for an AQUATIC VENUE similar to a ladder, but the individual treads are recessed into the AQUATIC VENUE wall.

"RECIRCULATION SYSTEM" means the combination of the main drain, gutter or SKIMMER, INLETS, piping, pumps, controls, surge tank or balance tank to provide AQUATIC VENUE water recirculation to and from the AQUATIC VENUE and the treatment systems.

"REDUCTION EQUIVALENT DOSE BIAS or RED" means a variable used in UV system validation to account for differences in UV sensitivity between the UV system challenge microbe (e.g., MS2 virus) and the actual microbe to be inactivated (e.g., *Cryptosporidium)*.

"RESPONSIBLE PERSON" means an individual on-site who is responsible for daily testing of water chemistry and identifying the presence of any IMMINENT HEALTH HAZARDS including but not limited to: major barrier breaches, water clarity, proper gate function, and damaged or missing suction outlet cover in an AQUATIC VENUE open for use when a QUALIFIED OPERATOR is not on-site at an AQUATIC FACILITY. The RESPONSIBLE PERSON is not expected to correct deficiencies found, but rather to notify the QUALIFIED OPERATOR of their findings, notify the HEALTH AUTHORITY of the closure, and to secure the enclosure from general access until the identified deficiency is corrected.

"RINSE SHOWER" see **"SHOWER"**

"ROBOTIC CLEANER" means a modular vacuum system consisting of a motor-driven, in-water suction device, either self-powered or powered through a low voltage cable, which is connected to a DECK-side power supply.

"RUNOUT" means that part of a WATERSLIDE where riders are intended to decelerate and/or come to a stop. The RUNOUT is a continuation of the WATERSLIDE FLUME surface.

"SAFETY" (as it relates to construction items) means a design standard intended to prevent inadvertent or hazardous operation or use (i.e., a passive engineering strategy).

"SAFETY PLAN" means a written document that has procedures, requirements, and/or standards related to safety which the AQUATIC FACILITY staff must follow. These plans include training, emergency response, and operational procedures.

"SANITIZE" means reducing the level of microbes to that considered safe by public health standards (usually 99.999%). This may be achieved through a variety of chemical or physical means such as chemical treatment, physical cleaning, or drying.

"SECONDARY DISINFECTION SYSTEMS" means those DISINFECTION processes or systems installed in addition to the standard systems required on all AQUATIC VENUES, which are required to be used for INCREASED RISK AQUATIC VENUES.

"SHALLOW WATER" means any part of an AQUATIC VENUE with a depth that does not exceed five (5) feet.

"SHOWER" means a device that sprays water on the body.

- **"CLEANSING SHOWER"** means a SHOWER located within a HYGIENE FACILITY providing warm water and soap. The purpose of these SHOWERS is to remove contaminants

including perianal fecal material, sweat, skin cells, personal care products, and dirt before BATHERS enter the AQUATIC VENUE.

- **"RINSE SHOWER"** means a SHOWER typically located in the POOL DECK area with ambient temperature water. The main purpose is to remove dirt, sand, or organic material prior to entering the AQUATIC VENUE to reduce the introduction of contaminants and the formation of DISINFECTION BY-PRODUCTS.

"SKIMMER" means a device installed in the AQUATIC VENUE wall whose purpose is to remove floating debris and surface water to the filter. They shall include a weir to allow for the automatic adjustment to small changes in water level, maintaining skimming of the surface water.

"SKIMMER POOL" see **"POOL"**

"SKIMMER SYSTEM" means periodic locations along the top of the AQUATIC VENUE wall for removal of water from the AQUATIC VENUE's surface for treatment.

"SLIDE" means an AQUATIC FEATURE where BATHERS slide down from an elevated height into water.

- **"DROP SLIDE"** means a SLIDE that drops BATHERS into the water from a height above the water versus delivering the BATHER to the water entry point.
- **"POOL SLIDE"** means a SLIDE having a configuration as defined by the Code of Federal Regulations in 16 CFR §1207, or is similar in construction to a playground SLIDE used to allow BATHERS to SLIDE from an elevated height to a POOL. They shall include children's (tot) SLIDES and all other non-FLUME SLIDES that are mounted on the POOL DECK or within the basin of a public swimming POOL.
- **"WATERSLIDE"** means a SLIDE that runs into a LANDING POOL or RUNOUT through a fabricated channel with flowing water.

"SPA" see **"AQUATIC VENUE"**

"SPECIAL USE AQUATIC VENUE" see **"AQUATIC VENUE"**

"SPECTATOR" means any individual at an AQUATIC FACILITY who is present to observe an event without the potential of entering the water of any AQUATIC VENUE.

"STADIUM SEATING" see **"THEORETICAL PEAK OCCUPANCY"**

"STRUCTURAL CRACK" means a break or split in the AQUATIC VENUE surface that weakens the structural integrity of the vessel.

"SUBSTANTIAL ALTERATION" means the alteration, modification, or renovation of an AQUATIC VENUE or INDOOR AQUATIC FACILITY that involves the alteration or replacement of the shell, replacement of the complete plumbing system or a complete rebuild.

"SUBSTANTIALLY SIMILAR" means the replacement of equipment that has identical hydraulic characteristics and performs to the same manufacturer's specifications.

"SUPERCHLORINATION" means the addition of large quantities of CHLORINE-based chemicals to raise the FAC levels for water quality maintenance such as to kill algae, destroy odors, or improve the ability to maintain a disinfectant residual.

"SUPPLEMENTAL DISINFECTION SYSTEMS" means those DISINFECTION processes or systems which are not required on an AQUATIC VENUE for health and safety reasons. They may be used to enhance overall system performance and improve water quality.

"SURF POOL" see **"POOL"**

"THERAPY POOL" see **"POOL"**

"THEORETICAL PEAK OCCUPANCY" means the anticipated peak number of BATHERS in an AQUATIC VENUE or the anticipated peak number of PATRONS of the DECKS of an AQUATIC FACILITY. This is the lower limit of peak occupancy to be used for design purposes for determining services that support PATRONS. THEORETICAL PEAK OCCUPANCY is used to determine the number of SHOWERS. For AQUATIC VENUES, the THEORETICAL PEAK OCCUPANCY is calculated around the type of water use or space:

- **"AGITATED WATER"** means an AQUATIC VENUE with mechanical means (AQUATIC FEATURES) to discharge, spray, or move the water's surface above and/or below the static water line of the AQUATIC VENUE so BATHERS are standing or playing vertically. Where there is no static water line, movement shall be considered above the DECK plane.
- **"FLAT WATER"** means an AQUATIC VENUE in which the water line is static except for movement made by BATHERS usually as a horizontal use as in swimming. Diving spargers do not void the FLAT WATER definition.
- **"HOT WATER"** means an AQUATIC VENUE with a water temperature over 90°F.
- **"STADIUM SEATING"** means an area of high-occupancy seating provided above the POOL level for observation.

"TRANSMISSIVITY" means the percentage measurement of UV light able to pass through a solution.

"TRICHLORAMINE" see **"CHLORAMINE"**

"TURNOVER" means the period of time, usually expressed in hours, required to circulate a volume of water equal to the capacity of the AQUATIC VENUE.

"UNBLOCKABLE DRAIN COVER" has the meaning ascribed in ANSI/APSP-16 2011 Standard.

"UNDERWATER BENCH" means a submerged seat with or without hydrotherapy jets.

"UNDERWATER LEDGE" means a continuous step in the AQUATIC VENUE wall that allows swimmers to rest by standing without treading water.

"VARIANCE" means a written document APPROVED by the Southern Nevada Health District Board of Health, which seeks a full recusal of these Regulations and may impact the health and safety of PATRONS.

"WADING POOL" see **"POOL"**

"WAIVER" means a written agreement between the HEALTH AUTHORITY and the PERMIT HOLDER that authorizes a modification of one or more regulatory requirements and has no impact on the health and safety of PATRONS.

"WATER QUALITY TESTING DEVICE or WQTD" means a product designed to measure the level of a parameter in water. A WQTD includes a device or method to provide a visual indication of a parameter level, and may include one or more reagents and accessory items.

"WATERSLIDE" see **"SLIDE"**

"WAVE POOL" see **"POOL"**

"ZERO DEPTH ENTRY" means a sloped entry into an AQUATIC VENUE from DECK level into the interior of the AQUATIC VENUE as a means of access and egress.

SECTION 2 Facility Design and Construction

Parts

2-1 Plan Submittal

Subparts

The provisions of this Section apply to construction of a new AQUATIC FACILITY or AQUATIC VENUE, or the SUBSTANTIAL ALTERATION to an existing AQUATIC FACILITY or AQUATIC VENUE, unless otherwise noted.

2-101 New Construction and SUBSTANTIAL ALTERATION

2-101.1 AQUATIC FACILITY construction plans shall be designed to provide sufficient clarity to indicate the location, nature, and extent of the work proposed.

2-101.2 AQUATIC FACILITY construction plans shall show in detail that it will conform to the provisions of these Regulations and relevant laws to protect the health and SAFETY of the facility's BATHERS and PATRONS.

2-101.3 No person shall begin to construct a new AQUATIC FACILITY or shall substantially alter an existing AQUATIC FACILITY without first having the construction plans detailing the construction or SUBSTANTIAL ALTERATION submitted to and APPROVED by the HEALTH AUTHORITY.

2-101.4 An OWNER who allows new construction or a SUBSTANTIAL ALTERATION of an AQUATIC FACILITY to begin prior to obtaining approval from the HEALTH AUTHORITY will be subject to applicable fees. Any contractor who begins new construction or a SUBSTANTIAL ALTERATION of an AQUATIC FACILITY prior to obtaining APPROVED plans may be reported to the Nevada State Contractors Board.

2-101.5 All applications and supporting documentation, such as plans and hydraulics, must be prepared by a DESIGN PROFESSIONAL, a licensed contractor who holds a classification A license with an A-10 subclassification issued by the State Contractors' Board, or who is Nevada registered or licensed to practice his or her respective design profession as defined by the state of Nevada.

2-101.6 All construction plans shall include the following statements:

(A) "The proposed aquatic facility and all equipment shall be constructed and installed in conformity with the approved plans and specifications or approved amendments," and

(B) "No substantial alteration, changes, additions, or equipment not specified in the approved plans or allowed in these Regulations can be made or added until the plans for such substantial alteration, changes, additions, or equipment are submitted to and approved by the Health Authority."

2-101.7 All documentation must be submitted to the HEALTH AUTHORITY electronically.

(A) In addition, the following documents must also be submitted as hard copies a minimum of:

(1) One complete set of plans;

(2) One copy of the HEALTH AUTHORITY'S Construction Application, signed and stamped by the DESIGN PROFESSIONAL or licensed contractor; and

(3) One copy of the hydraulic calculations.

2-102 Content of Design Report

2-102.1 Basis of Design Report

(A) AQUATIC FACILITY plans shall include the name, address, and contact information for the OWNER and designer. Builder information must be submitted prior to the start of construction.

(B) AQUATIC FACILITY plans shall include site information indicating at a minimum: the location of all utilities, wells, topography, natural water features, and potential sources of surface drainage and pollution which may affect the proposed AQUATIC FACILITY.

(C) AQUATIC FACILITY plans shall include a site plot plan including:

(1) A general map and detailed scaled drawings of the AQUATIC FACILITY site plan or floor plan with detailed locations of the AQUATIC VENUES and AQUATIC FEATURES; and

(2) The locations of all water supply facilities, sources of drinking water, public and private sewers, and relative elevations of paved or other walkways and the EQUIPMENT ROOM floor shall be shown on the plans with the elevations of storm and sanitary sewer inverts and street grade.

2-102.2 Plans and Specifications

(A) Detailed scaled and dimensional drawings for each individual AQUATIC VENUE shall include an AQUATIC VENUE area plan and layout plan along with dimensioned longitudinal and transverse cross sections of the AQUATIC VENUE.

(B) Detailed scaled and dimensional drawings for each individual AQUATIC VENUE shall include location and type of:

(1) INLETS;

(2) Overflows;

(3) Gravity drains;

(4) Suction outlets;

(5) Overflow gutters or devices;

(6) Piping;

(7) Designed AQUATIC VENUE water elevation;

(8) AQUATIC FEATURES such as ladders, stairs, diving boards, SLIDES, and play features;

(9) Area Lighting/Photometric;
(10) AQUATIC VENUE markings; and
(11) Surface materials.

(C) Detailed scaled and dimensional drawings of the AQUATIC FACILITY and for each individual AQUATIC VENUE, as appropriate, shall include location and type of:
(1) Design of DECK, curb, or walls enclosing the AQUATIC VENUE;
(2) DECK drains;
(3) Paved walkways and other hardscape features;
(4) Non-slip flooring;
(5) AQUATIC VENUE area finishes;
(6) Drinking fountains or other sources of drinking water;
(7) Entries and exits;
(8) Hose bibs;
(9) ENCLOSURES;
(10) Telephones; and
(11) Area lighting, to include a photometric layout.

(D) Detailed scaled and dimensional drawings for each individual AQUATIC VENUE shall contain a flow diagram showing the location, plan, elevation, and schematics of:
(1) Filters;
(2) Pumps;
(3) Chemical feeders and interlocks;
(4) Chemical controllers and interlocks;
(5) SECONDARY DISINFECTION SYSTEMS, if required;
(6) SUPPLEMENTARY DISINFECTION SYSTEMS, if installed;
(7) Ventilation devices or AIR HANDLING SYSTEMS;
(8) Heaters;
(9) Surge tanks, including operating levels;
(10) BACKFLOW prevention assemblies and air gaps;
(11) Valves;
(12) Piping;
(13) Flow meters;
(14) Gauges;
(15) Thermometers;
(16) Test cocks;
(17) Sight glasses; and
(18) Drainage system for the disposal of AQUATIC VENUE water and filter wastewater.

(E) Detailed scaled and dimensional drawings for each individual AQUATIC VENUE shall contain a schematic layout of the AQUATIC VENUE EQUIPMENT ROOM or area showing accessibility for installation and maintenance.

(F) Detailed scaled and dimensional drawings for each individual AQUATIC VENUE shall contain a schematic layout of the AQUATIC FACILITY CHEMICAL STORAGE SPACE(s).

(G) Detailed scaled and dimensional drawings for each AQUATIC FACILITY shall show the location and number of all available HYGIENE FACILITIES provided including dressing rooms, lockers and basket storage, SHOWERS, lavatories, and toilet fixtures.

2-102.3 Technical Specifications

(A) Technical specifications for the construction of each AQUATIC VENUE and all appurtenances shall accompany the drawings for the AQUATIC FACILITY plans.

(B) The technical specifications for each AQUATIC FACILITY and each AQUATIC VENUE shall include all construction details not shown on the plans that relate to the AQUATIC FACILITY.

(C) The technical specifications for each AQUATIC FACILITY shall include the sources of all water supplies.

(D) Technical specifications shall include the water surface area and volume of each AQUATIC VENUE and associated water features, as applicable.

(E) The technical specifications for each AQUATIC FACILITY and each AQUATIC VENUE shall include the THEORETICAL PEAK OCCUPANCY, respectively.

(1) The THEORETICAL PEAK OCCUPANCY for an AQUATIC FACILITY shall be used for designing systems that serve BATHERS and PATRONS and shall incorporate non-water related areas such as DECKS and other adjacent portions of the AQUATIC FACILITY not associated with the AQUATIC VENUE.

(2) The THEORETICAL PEAK OCCUPANCY shall be calculated by dividing the surface area in square feet of the AQUATIC VENUE by the density factor (D) that fits the specific AQUATIC VENUE being considered.

(a) The overall density of the AQUATIC FACILITY may be adjusted as deemed appropriate by the HEALTH AUTHORITY with respect to health and SAFETY concerns related to the intended use.

(b) The THEORETICAL PEAK OCCUPANCY for an AQUATIC FACILITY shall be determined by adding the calculations for each AQUATIC VENUE in the AQUATIC FACILITY.

THEORETICAL PEAK OCCUPANCY = AQUATIC VENUE surface area / D
The density factors *(D)* are:
Water/BATHER-related:
1) SHALLOW WATER FLAT WATER density factor = 10 ft^2 per BATHER.
2) DEEP WATER FLAT WATER density factor = 20 ft^2 *per BATHER.*
3) AGITATED WATER density factor = 15 ft^2 per BATHER.
4) HOT WATER density factor = 10 ft^2 per BATHER.
5) WATERSLIDE LANDING POOL density factor = manufacturer-established capacity at any given time.
6) INTERACTIVE WATER PLAY water density factor = 10 ft^2 per BATHER on surface.

(F) The technical specifications and supplemental engineering data for each AQUATIC FACILITY and each AQUATIC VENUE shall include:

(1) Detailed information on the type, size, operating characteristics, and rating of all mechanical and electrical equipment;

(2) Hydraulic computations for head loss in all piping and recirculation equipment; and

(3) Pump curves that demonstrate that the selected recirculation pump(s) are adequate for the calculated required flows.

(G) The technical specifications for each AQUATIC VENUE shall include the recirculation rate, TURNOVER time, filter media, each piece of

equipment, safety equipment, and any other additional information related to the project requested by the HEALTH AUTHORITY for the purposes of the construction of the AQUATIC FACILITY, each AQUATIC VENUE and all appurtenances.

2-103 Plan Approval

2-103.1 New Construction

(A) The HEALTH AUTHORITY shall clearly state on the plans the limitations of its approval, and that the review does not include structural design or structural stability of any part of the AQUATIC FACILITY.

(B) The approval is independent of all other approvals required by other regulatory entities. The applicant must separately obtain all other required approvals and permits.

(C) The HEALTH AUTHORITY may coordinate its AQUATIC FACILITY plan review and communicate its approval with other agencies involved in the AQUATIC FACILITY construction.

(D) The HEALTH AUTHORITY shall provide a written response to the AQUATIC FACILITY OWNER or OWNER'S representative within 30 business days of the most recent submission, whether an original or revised submission, containing, but not limited to, the following information:

(1) Categorical items marked satisfactory, unsatisfactory, not applicable, or insufficient information;

(2) A comment section keyed to the compliance review list shall detail unsatisfactory and insufficient information;

(3) Indication of the HEALTH AUTHORITY approval or disapproval of the AQUATIC FACILITY construction plans;

(4) In the case of a disapproval, specific reasons for disapproval and procedure for resubmittal; and

(5) Reviewer's name, signature, and date of review.

(E) The OWNER or OWNER'S agent shall contact the HEALTH AUTHORITY to schedule all required inspections identified in the plan submission process.

(F) Additional inspections may be required by the HEALTH AUTHORITY when deemed necessary.

(G) The AQUATIC FACILITY OWNER shall maintain at least one set of APPROVED plans made available to the HEALTH AUTHORITY on-site for as long as the AQUATIC FACILITY is in operation.

2-103.2 NON-SUBSTANTIAL ALTERATIONS

(A) The AQUATIC FACILITY OWNER planning a NON-SUBSTANTIAL ALTERATION shall make application to the HEALTH AUTHORITY to review proposed changes prior to starting the NON-SUBSTANTIAL ALTERATION.

(B) All applications and supporting documentation, such as plans and hydraulics, shall be prepared by a DESIGN PROFESSIONAL or a licensed contractor with an appropriate classification issued by the Nevada State Contractors' Board.

(C) The AQUATIC FACILITY operator shall consult with the HEALTH AUTHORITY to determine if new or modified plans are required for approval of the NON-SUBSTANTIAL ALTERATIONS proposed.

2-103.3 Replacements

(A) When replacing like equipment, the AQUATIC FACILITY OWNER shall submit technical verification to the HEALTH AUTHORITY that the

replacement is equal to the originally APPROVED equipment within 5 business days of installation.

(B) The replacement of pumps, filters, feeders, controllers, filter valves, or other similar equipment with SUBSTANTIALLY SIMILAR equipment may be done after contacting the HEALTH AUTHORITY to review the proposed changes without the submission of altered AQUATIC FACILITY plans, unless the review determines the equipment is not SUBSTANTIALLY SIMILAR.

(C) The HEALTH AUTHORITY shall provide the AQUATIC FACILITY OWNER written approval or disapproval of the proposed replacement equipment's equivalency.

(D) The AQUATIC FACILITY OWNER accepts responsibility for proper and immediate replacement if equipment installed is not deemed to be SUBSTANTIALLY SIMILAR by the HEALTH AUTHORITY.

(E) Documentation of proposed, APPROVED, and disapproved replacements shall be maintained by the HEALTH AUTHORITY.

2-104 Compliance Certificate

2-104.1 A certificate of construction compliance shall be submitted to the HEALTH AUTHORITY for all AQUATIC FACILITY plans for new construction and SUBSTANTIAL ALTERATIONS requiring HEALTH AUTHORITY approvals.

2-104.2 This certificate shall be prepared by a licensed professional and be within the scope of the licensed professional's practice as defined by state law.

2-104.3 The certificate shall also include a statement that the AQUATIC FACILITY, all equipment, and appurtenances have been constructed and/or installed in accordance with APPROVED plans and specifications.

2-104.4 If commissioning or testing reports for systems such as AQUATIC FACILITY lighting, air handling, recirculation, filtration, and/or DISINFECTION are conducted, then those reports shall be included in furnished documentation.

2-2 Materials

Subparts

2-201 Aquatic Venues

2-202 Indoor Aquatic Facility

2-201 Aquatic Venues

2-201.1 AQUATIC VENUES shall be constructed of reinforced concrete or impervious and structurally sound material(s), which provide a smooth, easily cleaned, watertight structure capable of withstanding the anticipated stresses and loads for full and empty conditions; taking into consideration climatic, hydrostatic, seismic, and the integration of the AQUATIC VENUE with other structural conditions and as required by other regulatory entities.

2-201.2 All materials shall be inert, non-toxic, resistant to corrosion, impervious, enduring, and resistant to damages related to environmental conditions of the installation region.

2-201.3 Where located in areas subject to freezing, AQUATIC VENUES and appurtenances shall be protected and designed from damage due to freezing.

2-201.4 AQUATIC VENUES shall be designed in such a way to maintain their ability to retain the designed amount of water.

2-201.5 All vertical walls shall have a durable finish suitable for regular scrubbing and cleaning at the waterline.

(A) The finish shall be able to withstand daily brushing, scrubbing, and cleaning of the surface in accordance with the manufacturer's recommendations.

(B) SKIMMER POOLS shall have a six (6) inch to twelve (12) inch high waterline finish that meets the requirements of this section.

(C) PERIMETER GUTTER SYSTEMS shall have a minimum finish height of two (2) inches that meets the requirements of this section.

(D) Dark colors in excess of what is required in these Regulations for the AQUATIC VENUE finish shall not extend more than twelve (12) inches below the waterline.

2-201.6 AQUATIC VENUE floors in areas less than three (3) feet deep shall have a slip resistant finish with a minimum dynamic coefficient of friction at least equal to the requirements of ANSI A137.1-2012 of 0.42 as measured by the DCOF AcuTest.

2-201.7 Stainless steel, vinyl, PVC-P, or PVC panel and liner AQUATIC VENUE finish systems shall be acceptable provided that the system is installed on top of APPROVED materials using design requirements as listed within this Section or as APPROVED by the HEALTH AUTHORITY. If, at any time, the liner system is damaged or cut in such a way that its integrity is compromised, the AQUATIC VENUE shall be shut down until the system is fully repaired.

2-201.8 Wood, porous stone, loose pebbles, or earth shall not be permitted as an interior finish.

2-202 Indoor Aquatic Facility

2-202.1 The interior building finishes of an INDOOR AQUATIC FACILITY shall be designed for an indoor relative humidity of not less than 80 percent.

2-202.2 Mechanical Systems

(A) AIR HANDLING SYSTEMS must be designed in accordance with applicable regulatory requirements.

(B) Filters for outdoor-air intake shall be rated moisture-resistant.

2-202.3 INDOOR AQUATIC FACILITY Doors

(A) INDOOR AQUATIC FACILITY doors shall either be constructed of corrosion-resistant materials or have a covering or coating designed to withstand humid and corrosive environments which is acceptable to the HEALTH AUTHORITY.

(B) INDOOR AQUATIC FACILITY doors which may be exposed to temperatures below INDOOR AQUATIC FACILITY-air dew point shall have thermal breaks, insulation, and/or glazing as necessary to minimize the risk of uncontrolled condensation.

(C) INDOOR AQUATIC FACILITY doors and/or door frames shall be equipped with seals and/or gaskets to minimize air leakage when the door is closed.

(D) All pedestrian doors around the INDOOR AQUATIC FACILITY perimeter shall be equipped with an automatic door closer capable of closing the door completely without human assistance against the specified difference in air pressure between the INDOOR AQUATIC FACILITY and other INTERIOR SPACES.

2-202.4 INDOOR AQUATIC FACILITY window frames shall be constructed of suitable materials or shall have a suitable covering or coating that is designed to

withstand the expected atmosphere, not contribute to microbial growth, and constructed to minimize the risk of uncontrolled condensation.

2-3	Aquatic Venue Structure		
Subparts			
2-301	Design for Risk Management	2-3011	Walls
2-302	Bottom Slope	2-3012	Structural Stability
2-303	Aquatic Venue Access and Egress	2-3013	Handholds
2-304	Stairs	2-3014	Infinity Edges
2-305	Handrails	2-3015	Underwater Benches
2-306	Grab Rails	2-3016	Underwater Ledges
2-307	Recessed Steps	2-3017	Underwater Shelves
2-308	Ladders	2-3018	Depth Markers and Markings
2-309	Zero Depth (Sloped) Entries	2-3019	Movable Floors
2-3010	Color and Finish	2-3020	Bulkheads

2-301 Design for Risk Management

The design of AQUATIC FACILITIES and/or AQUATIC VENUE(s) shall include the OWNER and/or an aquatic risk management consultant to incorporate operational considerations such as the layout for zones of BATHER surveillance and an unobstructed view of the bottom of the AQUATIC VENUE.

2-301.1 The AQUATIC VENUE shape shall provide for the safety of BATHERS and PATRONS, thorough and complete circulation of the water, the ability to clean and maintain the AQUATIC VENUE, and the supervision of BATHERS and PATRONS using the AQUATIC VENUE.

2-301.2 The water in an AQUATIC VENUE shall be sufficiently clear so that the pattern of the main suction outlet is visible while the water is static.

- **(A)** To make this observation, the main suction outlet shall be located at the deepest part of the AQUATIC VENUE.
- **(B)** The main suction outlet shall be visible at all times at any point on the DECK up to 30 feet away in a direct line of sight from the main suction outlet.
- **(C)** For SPAS, this test shall be performed when the water is in a non-turbulent state and bubbles have been allowed to dissipate.

2-302 Bottom Slope

2-302.1 The bottom slope of an AQUATIC VENUE shall be governed by the following parameters, but WAIVERS or VARIANCES may be granted for special uses and situations so long as public safety and health are not compromised.

2-302.2 In water depths under five (5) feet, the slope of the floor of all AQUATIC VENUES shall not exceed one (1) foot vertical drop for every 12 feet horizontal.

2-302.3 In water depths five (5) foot and greater, the slope of the floors of all AQUATIC VENUES shall not exceed one (1) foot vertical drop to three (3) feet horizontal, except that AQUATIC VENUES designed and used for competitive diving shall be designed to meet the standards of the sanctioning organization (such as NFSHSA, NCAA, USA Diving or FINA).

2-302.4 AQUATIC VENUES shall be designed so that they drain without leaving puddles or trapped standing water.

2-303 Aquatic Venue Access and Egress

2-303.1 Each AQUATIC VENUE shall have a minimum of two (2) means of access and egress, and no less than one (1) for each 75 feet of perimeter, with the exception of:

(A) WATERSLIDE LANDING POOLS;

(B) WATERSLIDE RUNOUTS; and

(C) WAVE POOLS.

2-303.2 Acceptable means of access/egress shall include stairs with handrails, grab rails with RECESSED STEPS, ladders, ramps, swimouts, and zero-depth entries.

2-303.3 For AQUATIC VENUES wider than 30 feet, such means of access/egress shall be provided on each side of the AQUATIC VENUE, and shall not be more than 75 feet apart.

2-304 Stairs

2-304.1 Stairs shall be constructed with slip-resistant materials.

2-304.2 The leading horizontal and vertical edges of stair treads shall be outlined with slip-resistant contrasting tile or other permanent marking of two (2) inches on the tread and one (1) to two (2) inches on the riser.

2-304.3 Where stairs are provided in AQUATIC VENUE water depths greater than five (5) feet, they shall be recessed and not protrude into the swimming area of the AQUATIC VENUE. The lowest tread shall be at least four (4) feet below the normal water elevation.

2-304.4 Dimensions of stair treads shall conform to the following requirements: The tread of the first step must be between 12 inches and 18 inches, the tread of the remaining steps must be between 12 inches and 18 inches, all steps must be a minimum of 24 inches wide.

2-304.5 Stair risers shall have a minimum uniform height of six (6) inches and a maximum height of 12 inches, with a tolerance of 1/2 inches between adjacent risers. Stairs shall not be used underwater to transition between two (2) sections of an AQUATIC VENUE with different depths.

Note: The bottom riser may vary due to potential cross slopes with the AQUATIC VENUE floor; however, the bottom step riser may not exceed the maximum allowable height required by this section.

2-304.6 The top surface of the uppermost stair tread shall be located not more than 12 inches below the AQUATIC VENUE coping or DECK.

2-304.7 For AQUATIC VENUES with PERIMETER GUTTER SYSTEMS, the gutter may serve as a step, provided that the gutter is provided with a grating or cover and conforms to all construction and dimensional requirements herein specified.

2-304.8 Extended treads may vary from the maximum tread depth dimension values. The maximum water depth above an extended tread must not exceed 18 inches.

2-305 Handrails

2-305.1 Handrail(s) shall be provided for each set of stairs and not obstruct access to the stair treads.

2-305.2 Handrails shall be constructed of corrosion-resistant materials, and anchored securely with a space at least three (3) inches from the adjacent riser.

2-305.3 The upper railing surface of handrails shall extend above the AQUATIC VENUE coping or DECK between 34 inches and 38 inches.

2-305.4 Stairs wider than five (5) feet shall have at least one (1) additional handrail for every 10 feet of stair width.

2-305.5 Handrails shall be designed to resist a load of 50 pounds per linear foot applied in any direction and independently a single concentrated load of 200 pounds applied in any direction at any location. Hand rails shall be designed to transfer these loads through the supports to the AQUATIC VENUE or DECK structure.

2-306 Grab Rails

2-306.1 Where grab rails are provided, they shall be constructed of corrosion-resistant materials.

2-306.2 Grab rails shall be anchored securely.

2-306.3 Grab rails shall be provided at both sides of RECESSED STEPS.

2-306.4 The horizontal clear space between grab rails shall be not less than 18 inches and not more than 24 inches.

2-306.5 The upper railing surface of grab rails shall extend above the AQUATIC VENUE coping or DECK a minimum of 28 inches.

2-306.6 Grab rails shall be designed to resist a load of 50 pounds per linear foot applied in any direction and independently a single concentrated load of 200 pounds applied in any direction at any location. Grab rails shall be designed to transfer these loads through the supports to the AQUATIC VENUE or DECK structure.

2-307 Recessed Steps

2-307.1 RECESSED STEPS shall:

(A) Be slip-resistant;

(B) Be designed to be easily cleaned; and

(C) Drain into the AQUATIC VENUE.

2-307.2 RECESSED STEPS shall be uniformly spaced not less than six (6) inches and not more than 12 inches vertically along the AQUATIC VENUE wall.

2-307.3 Each recessed step must be uniformly constructed to provide for a height of five (5) inches, depth of five (5) inches, and a width of 12 inches.

2-307.4 The top surface of the uppermost RECESSED STEP shall be located not more than 12 inches below the AQUATIC VENUE coping or DECK.

2-307.5 For AQUATIC VENUES with PERIMETER GUTTER SYSTEMS, the gutter may serve as a step, provided that the gutter is provided with a grating or cover and conforms to all construction and dimensional requirements herein specified.

2-308 Ladders

2-308.1 Where provided, ladders shall be constructed of corrosion-resistant materials and be anchored securely to the DECK.

2-308.2 Ladder Handrails

(A) Ladders shall have two (2) handrails.

(B) The horizontal clear space between handrails shall be not less than 18 inches and not more than 24 inches.

(C) The upper railing surface of handrails shall extend above the AQUATIC VENUE coping or DECK a minimum of 28 inches.

(D) The clear space between handrails and the AQUATIC VENUE wall shall be not less than three (3) inches and not more than six (6) inches.

(E) Ladders shall be designed to resist a load of 50 pounds per linear foot applied in any direction and independently a single concentrated load of 200 pounds applied in any direction at any location.

(F) Ladders shall be designed to transfer these loads through the supports to the AQUATIC VENUE or DECK structure.

2-308.3 Ladder Treads

(A) Ladder treads shall be slip-resistant.

(B) Ladder treads shall have a minimum horizontal tread depth of 1.5 inches and the distance between the horizontal tread and the AQUATIC VENUE wall shall not be greater than four (4) inches.

(C) Ladder treads shall be uniformly spaced not less than seven (7) inches and not more than 12 inches vertically at the handrails.

(D) The top surface of the upmost ladder tread shall be located not more than 12 inches below the AQUATIC VENUE coping, gutter, or DECK.

2-309 Zero Depth (Sloped) Entries

2-309.1 Where ZERO DEPTH ENTRIES are provided, they shall be constructed with slip-resistant materials.

2-309.2 ZERO DEPTH ENTRIES shall have a maximum floor slope of 1:12, consistent with the requirements of Section 2-302. Changes in floor slope shall be permitted.

2-309.3 Trench drains shall be used along ZERO DEPTH ENTRIES at the waterline to facilitate surface skimming.

(A) The trenches may be flat or follow the slope of the ZERO DEPTH ENTRY.

2-3010 Color and Finish

2-3010.1 Floors and walls below the water line shall be white or light pastel in color such that from the AQUATIC VENUE DECK a BATHER is visible on the AQUATIC VENUE floor and

(A) The following items can be identified:

(1) Algae growth, debris or dirt within the AQUATIC VENUE;

(2) Cracks in the surface finish of the AQUATIC VENUE; and

(3) Suction outlets in accordance with Section 2-301.2.

(B) The finish shall be at least 6.5 on the Munsell color value scale.

(C) An exception shall be made for the following AQUATIC VENUE components:

(1) Competitive lane markings;

(2) Dedicated competitive diving well floors;

(3) Step or bench edge markings;

(4) Water line tiles;

(5) WAVE POOL and SURF POOL depth change indicator tiles; or

(6) Other APPROVED designs.

(D) Munsell color values less than 6.5 or designs such as rock formations may be permitted by the HEALTH AUTHORITY as long as it does not exceed 12 inches below the water surface.

2-3010.2 The HEALTH AUTHORITY may grant a WAIVER to the color requirements of these Regulations for Munsell color values less than 6.5. Competitive or lap POOLS may have lane markings and end wall targets installed in accordance with FINA, NCAA, USA Swimming, NFSHSA, or other recognized standards.

2-3010.3 Any graphics, color, or finish incorporated into the construction of an AQUATIC VENUE floor or walls must not prevent the detection of a BATHER in

distress, algae growth, sediment, or other objects in the AQUATIC VENUE. Permission in writing from the HEALTH AUTHORITY for the use of any graphics shall be obtained before the graphics are used.

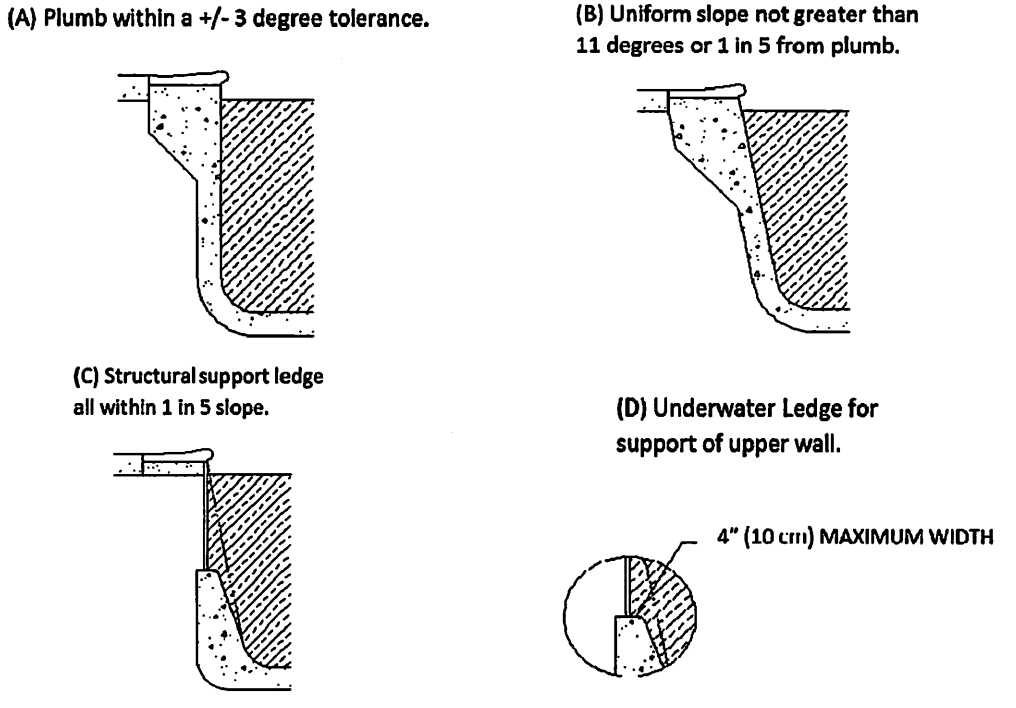
2-3011 Walls

2-3011.1 AQUATIC VENUE walls shall be plumb within a plus or minus (+/-) three degree tolerance, unless the wall design requires structural support ledges and slopes below to support the upper wall. Refer to **Figure 2-3011.3**.

2-3011.2 All corners created by adjoining floors and walls must be of a coved design.

2-3011.3 All structural support ledges and slopes of the wall shall fall entirely within a plane slope from the water line at not greater than a +/- three degree tolerance. A contrasting color shall be provided on the edges of any support ledge to draw attention to the ledge for BATHER safety. All corners created by adjoining walls shall be rounded or have a radius in both the vertical and horizontal dimensions to eliminate sharp corners. There shall be no projections from an AQUATIC VENUE wall with the exception of structures or elements such as stairs, grab rails, ladders, handholds, PENINSULAS, WING WALLS, underwater lights, safety ropes, WATERSLIDES, play features, other APPROVED AQUATIC VENUE amenities, UNDERWATER BENCHES, and UNDERWATER LEDGES as described in this Section. Refer to **Figure 2-3011.3**.

Figure 2-3011.3: AQUATIC VENUE Walls



2-3012 Structural Stability

2-3012.1 AQUATIC VENUES shall be designed to withstand the reasonably anticipated loads imposed by AQUATIC VENUE water, BATHERS, and adjacent soils or structures.

2-3012.2 A hydrostatic relief valve and/or suitable under drain system shall be provided where the water table exerts hydrostatic pressure to uplift the AQUATIC VENUE when empty or drained.

2-3012.3 AQUATIC VENUES and related circulation piping shall be designed with a winterizing strategy when in an area subject to freeze or thaw cycles.

2-3013 Handholds

2-3013.1 Where not otherwise exempted, every AQUATIC VENUE shall be provided with handholds (such as PERIMETER GUTTER SYSTEM, coping, horizontal bars, recessed handholds, cantilevered DECKING) around the perimeter of the AQUATIC VENUE where the water depth at the wall exceeds 24 inches. These handholds shall be installed not greater than nine (9) inches above, or three (3) inches below the static water level.

2-3013.2 Horizontal recesses may be used for handholds provided they are a minimum of 24 inches long, a minimum of four (4) inches high and between two (2) inches and three (3) inches deep.

(A) Horizontal recesses shall drain into the AQUATIC VENUE.

(B) Horizontal recesses need not be continuous, but consecutive recesses shall be separated by no more than 12 inches of wall.

2-3013.3 Where PERIMETER GUTTER SYSTEMS are not provided, a coping or cantilevered DECKING of reinforced concrete or material equivalent in strength and durability, with rounded, slip-resistant edges shall be provided.

2-3013.4 The overhang for coping or cantilevered DECKING shall not be greater than two (2) inches from the vertical plane of the AQUATIC VENUE wall, nor less than one (1) inch.

2-3013.5 The overhang for coping or cantilevered DECKING shall not exceed 3.5 inches in thickness for the last two (2) inches of the overhang.

2-3014 Infinity Edges

2-3014.1 Not more than fifty percent (50 percent) of the AQUATIC VENUE perimeter shall incorporate an INFINITY EDGE detail, unless an adjacent and PATRON accessible DECK space conforming to Sections 2-601.1 and 2-601.3 is provided.

2-3014.2 The length of an INFINITY EDGE shall be no more than 30 feet long when in water depths greater than five (5) feet.

2-3014.3 Handholds conforming to the requirements of Section 2-3013 shall be provided for INFINITY EDGES, which may be separate from, or incorporated as part of the INFINITY EDGE detail.

2-3014.4 Where INFINITY EDGES are provided, they shall be constructed of reinforced concrete or other impervious and structurally rigid material(s), and designed to withstand the loads imposed by AQUATIC VENUE water, BATHERS, and adjacent soils or structures.

2-3014.5 Troughs, basins, or capture drains designed to receive the overflow from INFINITY EDGES shall be watertight, free from STRUCTURAL CRACKS, and have a non-toxic, smooth, and slip-resistant finish.

2-3015 Underwater Benches

2-3015.1 Where provided, UNDERWATER BENCHES shall be constructed with slip-resistant materials having a minimum dynamic coefficient of friction at least equal to the requirements of ANSI A137.1-2012 of 0.42 as measured by DCOF AcuTest.

2-3015.2 The leading horizontal and vertical edges of UNDERWATER BENCHES shall be outlined with slip-resistant color contrasting tile or other permanent marking of two (2) inches on the horizontal surface and one to two inches (1-2 inches) on the vertical surface.

2-3015.3 UNDERWATER BENCHES may be installed in areas of varying depths, but the maximum AQUATIC VENUE water depth in that area shall not exceed five (5) feet.

2-3015.4 The maximum submerged depth of any seat or sitting bench shall be 24 inches measured from the water line.

2-3016 Underwater Ledges

2-3016.1 Where UNDERWATER LEDGES are provided to enable BATHERS in DEEP WATER to rest or to provide structural support for an upper wall, they shall be constructed with slip-resistant materials.

2-3016.2 UNDERWATER LEDGES for resting may be recessed or protrude beyond the vertical plane of the AQUATIC VENUE wall, provided they meet the criteria for slip resistance and tread depth outlined in this section.

2-3016.3 UNDERWATER LEDGES for resting shall only be provided within areas of an AQUATIC VENUE with a five (5) feet or greater water depth.

(A) UNDERWATER LEDGES must start no earlier than four (4) lineal feet to the deep side of the five (5) foot slope break.

(B) UNDERWATER LEDGES must be at least four (4) feet below the static water level.

2-3016.4 UNDERWATER LEDGES for structural support of upper walls are allowed.

2-3016.5 The edges of UNDERWATER LEDGES shall be outlined with slip-resistant color contrasting tile or other permanent marking of not less than one (1) inch and not greater than two (2) inches. If they project past the plane of the AQUATIC VENUE wall, the edges of UNDERWATER LEDGES shall be clearly visible from the DECK.

2-3016.6 UNDERWATER LEDGES shall have a maximum uniform horizontal tread depth of four (4) inches. See **Figure 2-3011.3**.

2-3017 Underwater Shelves

2-3017.1 UNDERWATER SHELVES may be constructed immediately adjacent to water shallower than five (5) feet.

2-3017.2 UNDERWATER SHELVES shall have a slip-resistant, color contrasting nosing at the leading horizontal and vertical edges on both the top of horizontal edges and leading vertical edges and should be viewable from the DECK and from underwater.

2-3017.3 UNDERWATER SHELVES shall have a maximum depth of 24 inches.

2-3018 Depth Markers and Markings

2-3018.1 Location

(A) AQUATIC VENUE water depths shall be clearly and permanently marked at the following locations:

(1) Minimum depth;

(2) Maximum depth;

(3) On both sides and at each end of the AQUATIC VENUE; and

(4) At the break in the floor slope between the shallow and deep portions of the AQUATIC VENUE.

(B) Depth markers shall be located on the vertical AQUATIC VENUE wall and positioned to be read from within the AQUATIC VENUE.

(C) Where depth markings cannot be placed on the vertical wall above the water level, other means shall be used so that the markings will be plainly visible to BATHERS in the AQUATIC VENUE.

(D) Depth markers shall also be located on the horizontal AQUATIC VENUE coping or DECK within 18 inches of the AQUATIC VENUE structural wall or perimeter gutter. Existing AQUATIC VENUES must meet this requirement within two (2) years from the implementation of these Regulations.

(E) Depth markers shall be positioned to be read while standing on the DECK facing the AQUATIC VENUE.

(F) Depth markers shall be installed at not more than 25 foot intervals around the AQUATIC VENUE perimeter edge and according to the requirements of this Section. In addition, for water less than five (5) feet in depth, the depth shall be marked at one (1) foot depth intervals.

2-3018.2 Construction/Size

(A) Depth markers shall be constructed of a durable material resistant to weather conditions.

(B) Depth markers shall be slip resistant when they are located on horizontal surfaces.

(C) Depth markers shall have numbers with a minimum height of four (4) inches and letters with a minimum height of one (1) inch of a contrasting color with the background.

(D) Depth markers shall be marked in units of feet and inches.

(1) Abbreviations of "FT" and "IN" may be used in lieu of "FEET" and "INCHES."

(2) Symbols for feet (') and inches (") shall not be permitted on water depth signs.

(3) Metric units may be provided in addition to, but not in lieu of, units of feet and inches.

2-3018.3 Depth markers shall be located to indicate water depth to the nearest three (3) inches, as measured from the AQUATIC VENUE floor three (3) feet out from the AQUATIC VENUE wall to the gutter lip, mid-point of surface SKIMMER(s), or surge weir(s).

2-3018.4 Depth Marking at Break in Floor Slope

(A) For AQUATIC VENUES deeper than five (5) feet, a line of contrasting color, not less than two (2) inches and not more than six (6) inches in width, shall be clearly and permanently installed on the AQUATIC VENUE floor at the shallow side of the break in the floor slope, and extend up the AQUATIC VENUE walls to the waterline.

(B) Depth marking at break in floor slope shall be constructed of a durable material resistant to local weather conditions and be slip-resistant.

(C) When used, a safety rope must be installed one (1) foot to the SHALLOW WATER side of the break in floor slope and contrasting band, a safety float rope shall extend across the AQUATIC VENUE surface.

2-3018.5 Symmetrical AQUATIC VENUE designs with the deep point at the center may be allowed by providing a dual depth marking system APPROVED by the HEALTH AUTHORITY. The dual depth marking system must indicate the depth at the wall and at the deep point as measured in Section 2-3018.3.

2-3018.6 Controlled-access AQUATIC VENUES, such as ACTIVITY POOL, LAZY RIVERS, and other venues with limited access, shall only require depth markers on a sign at the points of entry.

(A) Depth marker signs shall be clearly visible to PATRONS entering the venue.

(B) All lettering and symbols shall be as required for other types of depth markers.

2-3018.7 For AQUATIC VENUES with movable floors, a sign indicating movable floor and/or varied water depth shall be provided and clearly visible from the DECK.

(A) The posted water depth shall be the water level to the floor of the AQUATIC VENUE according to a vertical measurement taken three (3) feet from the AQUATIC VENUE wall.

(B) A sign shall be posted to inform the public that the AQUATIC VENUE has a varied depth and refer to the sign showing the current depth.

2-3018.8 A minimum of two (2) depth markers shall be provided regardless of the shape or size of a SPA.

2-3018.9 AQUATIC VENUES where the maximum water depth is six (6) inches or less, such as WADING POOLS, CHILD AMUSEMENT LAGOONS, and ACTIVITY POOL areas, shall not be required to have depth markings or "NO DIVING" signage.

2-3018.10 No Diving Markers

(A) For AQUATIC VENUE water depths five (5) feet or less, all required DECK depth markers shall be provided with "NO DIVING" warning signs along with the universal international symbol for "NO DIVING." Existing AQUATIC VENUES must meet this requirement within two (2) years from the implementation of these Regulations.

(B) "NO DIVING" warning signs and symbols shall be spaced at no more than 25 foot intervals around the AQUATIC VENUE perimeter edge.

(C) "NO DIVING" markers shall be constructed of a durable material resistant to weather conditions.

(D) "NO DIVING" markers shall be slip-resistant when they are located on horizontal surfaces. All lettering and symbols shall be at least four (4) inches in height.

2-3019 Moveable Floors

2-3019.1 The moveable floor design shall:

(A) Not impede the effectiveness of the water treatment system, and

(B) Allow for inspection, cleaning and maintenance of the area underneath.

2-3019.2 The surface of the moveable floor shall be slip-resistant if it is intended for installation in water depths less than five (5) feet.

2-3019.3 Safety

(A) A strategy for preventing BATHERS from transitioning to deeper water when a moveable floor is not continuous over the entire surface area of the AQUATIC VENUE shall be provided.

(B) The underside of the moveable floor shall not be accessible to BATHERS.

(C) The design of a moveable floor shall protect against BATHER entrapment between the moveable floor and the AQUATIC VENUE walls and floor.

(D) If the moveable floor is operated using hydraulics, the hydraulic compounds shall be listed as safe for use in AQUATIC VENUE water.

2-3019.4 Movement

(A) The speed of a moveable floor shall be less than or equal to 1.5 feet per minute.

(B) Use of the moveable floor portion of the AQUATIC VENUE shall not be open to BATHERS when the floor is being raised or lowered.
Exception: The moveable floor may be used for accessibility purposes only under direct supervision.

2-3019.5 Water Depth and Markings

(A) A floor depth indicator shall be provided that displays the current AQUATIC VENUE water depth.

(B) Warning markings stating "Moveable Floor" shall be provided at 25 foot intervals around the perimeter of the moveable floor.

2-3020 Bulkheads

2-3020.1 The bottom of the BULKHEAD shall be designed so that a BATHER cannot be entrapped underneath or inside of the BULKHEAD.

2-3020.2 The BULKHEAD placement shall not interfere with the required water circulation in the AQUATIC VENUE.

2-3020.3 BULKHEADS shall be fixed to their operational position(s) by a tamper-proof system.

2-3020.4 The gap between the BULKHEAD and the AQUATIC VENUE wall shall be no greater than 1.5 inches.

2-3020.5 The BULKHEAD shall be designed to afford an acceptable handhold as required in Section 2-3013.

2-3020.6 Proper access and egress to the AQUATIC VENUE as required by Section 2-303 shall be provided when the BULKHEAD is in place.

2-3020.7 Guard railings at least 34 inches tall shall be provided on both ends of the BULKHEAD.

2-3020.8 The width of the walkable area (total BULKHEAD width) of a BULKHEAD shall be greater than or equal to three feet and three inches (3 ft. 3 in.).

(A) If starting platforms are installed, the width of the walkable area (total BULKHEAD width) of a BULKHEAD shall be greater than or equal to three feet and nine inches (3 ft. 9 in.).

(B) Starting platforms shall be "side mount" style if the BULKHEAD is less than four feet six inches (4 ft. 6 in.) wide.

2-3020.9 The travel of a BULKHEAD shall be in accordance with one of the following:

(A) Limited such that it cannot encroach on any required clearances of other features, such as diving boards; or

(B) Designed with modifications incorporated that prevent the use of other features when the required clearances have been compromised by the position of the BULKHEAD.

2-4 Indoor/Outdoor Environment

Subparts

2-401 Lighting

2-401.1 All lighting associated with an AQUATIC FACILITY must conform to the requirements of the latest National Electrical Code (NEC).

2-401.2 Lighting as described in this Section shall be provided for all AQUATIC VENUES.

2-401.3 No lighting controls shall be accessible to PATRONS.

2-401.4 Where natural lighting methods are used to meet the light level requirements of Section 2-401.5 during portions of the day when adequate natural lighting is available, one of the following methods shall be used to ensure that lights are turned on when natural lighting no longer meets these requirements:

(A) Automatic lighting controls based on light levels or time of day, or

(B) Written operational procedures where manual controls are used.

2-401.5 AQUATIC VENUE water surface and DECK light levels shall meet the following minimum maintained light levels:

(A) Indoor Water Surface: 30 horizontal footcandles (323 lux)

(B) Outdoor Water Surface: 10 horizontal footcandles (108 lux)

(C) DECK: 10 horizontal footcandles (108 lux).

2-401.6 Overhead Lighting

(A) Artificial lighting shall be provided at all AQUATIC VENUES.

(B) Lighting shall illuminate all parts of the AQUATIC VENUE including the water, the depth markers, signs, entrances, exits, HYGIENE FACILITIES, restrooms, safety equipment, and the required DECK area and walkways.

2-401.7 Underwater Lighting

(A) Underwater lighting, where provided, shall be not less than eight (8) initial rated lumens per square foot of AQUATIC VENUE water surface area.

(1) Such underwater lights, in conjunction with overhead or equivalent DECK lighting, shall be located to provide illumination so that all portions of the AQUATIC VENUE, including the AQUATIC VENUE bottom and drain(s), may be readily seen.

(2) Higher underwater light levels shall be considered for deeper water to achieve this outcome.

(3) Colored lights must meet the same requirements for illumination as indicated in this Section.

(B) Dimmable lights shall not be used for underwater lighting.

(C) All underwater light fixture lenses shall be clear.

2-401.8 Windows and any other features providing natural light into the AQUATIC VENUE space and overhead or equivalent DECK lighting shall be designed or arranged to inhibit or reduce glare on the AQUATIC VENUE water surface that would prevent seeing objects on the AQUATIC VENUE bottom.

2-402 Indoor Aquatic Facility Ventilation

2-402.1 INDOOR AQUATIC FACILITY AIR HANDLING SYSTEMS shall be designed, constructed, and installed to support the health and SAFETY of the building's PATRONS.

2-402.2 The AQUATIC FACILITY OWNER shall request from the contractor installing the INDOOR AQUATIC FACILITY AIR HANDLING SYSTEM an operating manual from the manufacturer.

2-402.3 AIR HANDLING SYSTEM Commissioning

(A) A qualified, licensed professional shall commission the AIR HANDLING SYSTEM to verify that the installed system is operating properly in accordance with the system's design.

2-403 Indoor Aquatic Facility Acoustics

2-403.1 INDOOR AQUATIC FACILITIES must receive acoustical treatment which will prevent reverberations of sound that may hinder communication.

2-404 Indoor Aquatic Facility Electrical Systems and Components

Nothing in these Regulations shall be construed as providing relief from any applicable requirements of the NEC and local codes and amendments.

2-405 Aquatic Venue Water Heating

When designing AQUATIC VENUE heating equipment, measures shall be taken to prevent BATHER exposure to water temperatures in excess of 104°F.

2-406 First Aid Area

Design and construction of new AQUATIC FACILITIES not directly associated with residential living quarters shall include an area designated for first aid equipment and/or treatment.

2-407 Drinking Fountains

2-407.1 A drinking fountain shall be provided inside an AQUATIC FACILITY.

(A) Plans for alternate locations of drinking fountains, the use of bottled water, or water dispensing units may be submitted and evaluated by the HEALTH AUTHORITY.

(B) If the drinking fountain cannot be provided inside the AQUATIC FACILITY, it shall be provided in a common use building or area adjacent to the AQUATIC FACILITY entrance and on the normal path of BATHERS going to the AQUATIC FACILITY entrance.

2-407.2 The drinking fountain shall be located where it is readily accessible and not a hazard to BATHERS. The drinking fountain shall not be located in a SHOWER area or toilet area.

2-407.3 A single drinking fountain shall be allowed for one or more AQUATIC VENUES within an AQUATIC FACILITY.

2-407.4 The drinking fountain shall be an angle jet type installed according to applicable plumbing codes.

2-407.5 The drinking fountain shall be supplied with water from an approved potable water supply.

2-407.6 The wastewater discharged from a drinking fountain shall be routed to an approved sanitary sewer system or other approved disposal area according to applicable plumbing codes.

2-408 Trash Receptacles

2-408.1 A sufficient number of receptacles shall be provided within an AQUATIC FACILITY to ensure that trash can be disposed of properly to maintain safe and sanitary conditions.

2-408.2 Receptacles shall be designed to be closed with a lid or other cover so they remain closed until intentionally opened.

2-409 Food and Drink Concessions

Concessions for food and drink in an AQUATIC FACILITY shall meet all requirements established by the HEALTH AUTHORITY and relevant law.

2-4010 Spectator Areas

2-4010.1 An area designed for use by SPECTATORS may be located within an AQUATIC FACILITY ENCLOSURE.

2-4010.2 DECK

(A) When a SPECTATOR area or access to a SPECTATOR area is located within the AQUATIC FACILITY ENCLOSURE, the DECK adjacent to the area or access shall provide egress width for the SPECTATORS in addition to the width required by these Regulations.

2-4010.3 SPECTATOR or other area located in a balcony within ten (10) feet of or overhanging any portion of an AQUATIC VENUE shall be designed to deter jumping or diving into the AQUATIC VENUE.

2-5 Recirculation System Design, Equipment and Water Treatment Subparts

2-501 General Equipment Standards

2-501.1 All equipment used or proposed for use in AQUATIC FACILITIES governed under these Regulations shall be:

(A) Of a proven design and construction, and

(B) Listed and labeled to a specific standard for the specified equipment use by an ANSI-accredited certification organization.

2-501.2 Where standards do not exist, technical documentation shall be submitted to the HEALTH AUTHORITY to demonstrate acceptability for use in AQUATIC FACILITIES. The HEALTH AUTHORITY may require tests at the expense of the applicant, as proof of acceptability.

2-502 Recirculation Systems and Equipment

2-502.1 General Requirements

Each AQUATIC VENUE designed to recirculate water shall be equipped and operated with a recirculation and filtration system capable of meeting the provisions outlined in this Section.

(A) The installation of the recirculation and the filtration system components shall be performed in accordance with the designer's and manufacturer's instructions.

(B) A water RECIRCULATION SYSTEM consisting of one or more pumps, pipes, return INLETS, suction outlets, tanks, filters, and other necessary equipment shall be provided.

2-502.2 INLETS

(A) The RECIRCULATION SYSTEM shall be designed with sufficient flexibility to achieve a hydraulic apportionment that will ensure the following:

(1) Effective distribution of treated water, and

(2) Maintenance of a uniform disinfectant residual and PH throughout the AQUATIC VENUE. Alternative designs shall be allowed based on adequate engineering justification.

(B) Effective distribution of treated water shall be accomplished by either a continuous perimeter overflow system with integral INLETS or by means of directionally adjustable INLETS adequate in design, number, and location.

(C) AQUATIC VENUES shall use wall and/or floor INLETS to provide adequate mixing.

(D) For AQUATIC VENUES greater than 35 feet wide, floor INLETS shall be required.

(E) All other types of INLET systems not covered in this section shall be subject to approval by the HEALTH AUTHORITY with proper engineering justification.

(F) INLETS shall be hydraulically sized to provide the design flow rates for each AQUATIC VENUE area of multi-zone AQUATIC VENUES based on the required design TURNOVER for each zone.

(G) INLETS shall not extend from the wall or floor.

(H) Floor INLETS shall be spaced to effectively distribute the treated water throughout the AQUATIC VENUE.

(I) Floor INLETS shall be flush with the bottom of the AQUATIC VENUE.

(1) Distance between floor INLETS shall be no greater than 15 feet.

(2) A row of floor INLETS shall be located within 10 feet of each side wall.

(3) Floor INLETS, used in combination with wall INLETS, shall be spaced no greater than ten (10) feet from the nearest side wall.

(J) Wall INLET velocity shall mix the water effectively.

(1) INLETS shall be directionally adjustable to provide effective distribution of water.

(2) Wall INLETS shall be spaced no greater than 15 feet apart.

(3) INLETS shall be placed within five (5) feet of each corner of the AQUATIC VENUE.

(4) INLETS shall be placed at least five (5) feet from a SKIMMER.

(5) INLETS shall be placed in each recessed or isolated area of the AQUATIC VENUE.

(6) INLETS shall be placed not less than 18 inches below the normal operating water level of the AQUATIC VENUE.

(K) Wall INLETS shall not require design to provide directional flow if part of a manufactured gutter system in which the filtered return water conduit is contained within the gutter structure.

(L) Dye testing may be required by the HEALTH AUTHORITY to evaluate the mixing characteristics of the RECIRCULATION SYSTEM. If a dye test reveals inadequate mixing in the AQUATIC VENUE after 20 minutes, the RECIRCULATION SYSTEM shall be adjusted or modified to assure adequate mixing.

2-502.3 PERIMETER GUTTER SYSTEMS

(A) All AQUATIC VENUES shall be designed to provide skimming for the entire AQUATIC VENUE surface area with an engineering rationale provided by the DESIGN PROFESSIONAL or licensed contractor.

(B) For AQUATIC VENUES that require a PERIMETER GUTTER SYSTEM, the PERIMETER GUTTER SYSTEM shall extend around the entire AQUATIC VENUE perimeter except where noted in these Regulations.

(C) ZERO DEPTH ENTRY AQUATIC VENUES shall have a continuous overflow trench that terminates as close to the side walls as practical, including any zero-depth portion of the AQUATIC VENUE perimeter.

(D) Where a PERIMETER GUTTER SYSTEM cannot be continuous, the ends of each section shall terminate as close as practical to each other.

(E) The PERIMETER GUTTER SYSTEM shall be designed to allow the continuous removal of water from the AQUATIC VENUE'S upper surface at a rate of at least 125 percent of the APPROVED total recirculation flow rate chosen by the designer.

(F) Gutters shall be equipped with removable grating to allow for ready inspection, cleaning, and repair.

(G) Gutters shall be designed to prevent the entrapment of BATHER'S limbs.

(H) Drop boxes, converters, return piping, or FLUMES used to convey water from the gutter shall be designed to:

(1) Prevent flooding and BACKFLOW of skimmed water into the AQUATIC VENUE, and

(2) Handle at least 125 percent of the APPROVED total recirculation flow.

(I) All PERIMETER GUTTER SYSTEMS shall be designed with an effective net surge capacity of not less than one gallon for each square foot of AQUATIC VENUE surface area.

(J) Surge shall be provided within a surge tank or the gutter above the normal operating level.

(1) The tank capacity specified shall be the net capacity.

(2) The DESIGN PROFESSIONAL, or licensed contractor, shall define the minimum, maximum, and normal AQUATIC VENUE operating water levels in the surge tank.

(3) The surge tank's minimum, maximum, and normal AQUATIC VENUE operating water levels shall be marked on the tank so as to be readily visible for inspection.

(4) Surge tanks shall have overflow pipes to convey excess water to waste via an air gap or other APPROVED BACKFLOW prevention device.

(K) Gutters shall be level within a tolerance of plus or minus 1/16 inch around the perimeter of the AQUATIC VENUE.

(L) Automatic makeup water supply equipment shall be provided to maintain continuous skimming of AQUATIC VENUES with PERIMETER GUTTER SYSTEMS.

(M) Makeup water shall be supplied through an air gap or other APPROVED BACKFLOW prevention device.

2-502.4 SKIMMERS and Alternative Gutter Technologies Using In- AQUATIC VENUE Surge Capacity

(A) The use of manufactured direct suction SKIMMERS shall be in accordance with the manufacturer's recommendations to include the installation of associated equalizer lines and valves.

(B) Where SKIMMERS are used, at least one surface SKIMMER shall be provided for each 400 square feet of surface area or fraction thereof, with a minimum of two skimmers provided for each AQUATIC VENUE.

(C) Additional SKIMMERS may be required to achieve effective skimming under site-specific conditions (e.g., heavy winds and/or contaminant loading).

(D) Hybrid systems that incorporate surge weirs in the overflow gutters to provide for in-AQUATIC VENUE surge shall meet all of the requirements specified for PERIMETER GUTTER SYSTEMS with the exception of the surge or balance tank, since the surge capacity requirement will be alternately met by the in-AQUATIC VENUE surge capacity.

(1) The number of surge weirs shall be based on the individual surge weir capacity and the operational apportionment of the design recirculation flow rate.

(2) The location of the required number of surge weirs shall be uniformly spaced in the gutter sections.

(E) When used, the SKIMMER SYSTEM shall be designed to handle up to 100 percent of the total recirculation flow rate chosen by the designer.

(F) SKIMMERS shall be so located as to provide effective skimming of the entire water surface.

(G) SKIMMERS shall be located so as not to be affected by areas with restricted flow such as near steps and within small recesses.

(H) Wind direction shall be considered in the number and placement of SKIMMERS.

(I) The flow rate for the SKIMMERS shall comply with the manufacturer's data plates.

(J) In the absence of a maximum specified SKIMMER flow rate, the flow through the SKIMMER shall not exceed 55 GPM.

(K) Each SKIMMER shall have a weir that adjusts automatically to variations in water level over a minimum range of four (4) inches.

(L) Each SKIMMER shall be equipped with a trimmer valve capable of distributing the total flow between individual SKIMMERS.

(M) Each SKIMMER shall be level with all other SKIMMERS in the AQUATIC VENUE within a tolerance of plus or minus 1/4 inch.

2-502.5 Submerged Suction Outlet

(A) Submerged suction outlets, including sumps and covers, shall be listed and labeled to the requirements of ANSI/APSP-16 2011 or successor standard.

(B) Unless an UNBLOCKABLE DRAIN COVER design is provided, a minimum of two (2) hydraulically balanced filtration system outlets are required in the bottom of an AQUATIC VENUE.

(1) One of the outlets may be located on the bottom of a side/end wall at the deepest level.

(2) The outlets shall be connected to a single main suction pipe by branch lines piped to provide hydraulic balance between the drains.

(3) The branch lines shall not be valved to be capable of operating independently.

(C) Outlets shall be spaced no more than 15 feet from the AQUATIC VENUE side walls.

(D) Outlets shall be located no less than three (3) feet apart, measuring between the centerlines of the suction outlet covers, or on separate planes.

(E) Where gravity outlets are used, the main drain outlet shall be connected to a surge tank, collection tank, or balance tank/pipe.

(F) The main drain system shall be designed at a minimum to handle recirculation flow of 100 percent of the total design recirculation flow rate.

(1) Where there are two main drain outlets, the branch pipe from each main drain outlet shall be designed to carry 100 percent of the recirculation flow rate.

(2) Where three or more main drain outlets are connected by branch piping in accordance with this Section, the design flow through each branch pipe from each main drain outlet may be as follows:

(a) $Q_{max}=Q_{total} / (N-1)$ where Q_{max} for each drain= Q(total recirculation rate) / (number of drains less one) .

(G) The main drain suction pipe to the pump shall be equipped with a proportioning valve(s) to adjust the flow distribution between the main drain piping and the surface skimming system piping.

(H) Flow velocities shall meet ANSI/APSP-16 2011, or successor standard, based on a 100 percent design flow through each main drain cover.

2-502.6 Piping

(A) Piping system components in contact with AQUATIC VENUE water shall be of non-toxic material, resistant to corrosion, able to withstand operating pressures, chemicals, and temperatures.

(B) RECIRCULATION SYSTEM piping shall be designed so that water velocities do not exceed eight feet per second (8ft/s) on the discharge side of the recirculation pump unless alternative values have proper engineering justification.

(1) Suction piping shall be sized so that the water velocity does not exceed six feet per second (6ft/s) unless alternative values have proper engineering justification.

(2) Gravity piping shall be sized with consideration of available system head or as demonstrated by detailed hydraulic calculations at the design recirculation flow rate.

(C) Provisions shall be made for the expansion and contraction of pipes due to temperature variations.

(1) Provisions shall be made for the complete drainage of all AQUATIC VENUE piping and designed with no less than a 2% slope.

(2) All piping shall be supported continuously or at sufficiently close intervals to prevent the sagging and settlement of pipes.

(D) All exposed piping shall be clearly marked to indicate function.

(1) All piping shall be clearly marked to indicate type or source of water and direction of flow with clear labeling and/or color coding.

(2) All valves shall be clearly marked to indicate function with clear labeling and/or color coding.

(3) A complete, easily readable schematic of the entire AQUATIC VENUE RECIRCULATION SYSTEM shall be openly displayed in the mechanical room or available to maintenance and inspection personnel.

(E) Suction and supply AQUATIC VENUE piping shall be subjected to a static hydraulic water pressure test for the duration specified by an engineer and/or the HEALTH AUTHORITY.

2-502.7 Strainers and Pumps

(A) All pumps, except those for vacuum filter installations, shall have a strainer/screen device on the suction side to protect the filtration and pumping equipment and have a spare strainer basket present for each pump.

(B) All material used in the construction of strainers and screens shall be:
(1) Nontoxic, impervious, and enduring;
(2) Able to withstand design stresses; and
(3) Designed to minimize friction losses.

(C) VFDs may be installed to control all recirculation and feature pumps.
(1) The recirculation pump(s) shall have adequate capacity to meet the recirculation flow design requirements in accordance with the maximum TDH required by the entire RECIRCULATION SYSTEM under the most extreme operating conditions. The system design shall include an increase of 23.1 feet of head between a clean and dirty filter condition.
(2) The pump shall be designed to maintain design recirculation flows under all conditions.
(3) Where vacuum filters are used, a vacuum limit switch shall be provided on the pump suction line.
(4) The vacuum limit switch shall be set for a maximum vacuum of 18 inches of mercury.
(5) All recirculation pumps shall be self-priming or flooded-suction.

(D) All pumps and associated motors must have equivalent horsepower ratings.

(E) A compound vacuum-pressure gauge shall be installed on the pump or on the suction line as close to the pump as possible when a pump port is unavailable or inaccessible.
(1) A pressure gauge shall be installed on the pump or on the discharge line adjacent to the pump when the pump port is unavailable or inaccessible.
(2) Gauges shall be installed so they can be easily read.
(3) All gauges shall be equipped with valves to allow for servicing under operating conditions.

2-502.8 Flow Measurement and Control

(A) A flow meter accurate to within +/- 5 percent of the actual design flow shall be provided for each filtration system. When a VFD is in use a flow meter must be accurate to within +/- 2 percent.

(B) Flow meters shall be installed in accordance with the manufacturer's instructions.

(C) All pumps shall be installed with a manual adjustable discharge valve to provide for system isolation.

2-502.9 Flow Rates/Turnover Time

Table 2-502.9: Aquatic Venue Maximum Allowable Turnover Times

Type of Aquatic Venue	Turnover Maximum
Activity Pools	4 hours
Diving Pools	6 hours
Interactive Water Play Venues*	0.5 hours
Isolation/Floatation Units*	4 Turnovers between users
Lazy Rivers	4 hours
Runout Slides	4 hours
Wading Pools*	0.5 hours
Child Amusement Lagoons*	0.5 hours
Wave Pools	4 hours
All Other Pools	6 hours
All Spas	0.5 hours
Surf Pools	Submit Engineering Justification from Equipment Manufacturer
***Shall have secondary disinfection systems**	

(A) All AQUATIC VENUES shall comply with the above maximum allowable TURNOVER times shown in **Table 2-502.9**.

(B) The TURNOVER time shall be calculated based on the total volume of water divided by the flow rate through the filtration process.

(1) Unfiltered water such as water that may be withdrawn from and returned to the AQUATIC VENUE for such AQUATIC FEATURES as SLIDES by a pump separate from the filtration system, shall not factor into TURNOVER time.

(C) The HEALTH AUTHORITY may grant a TURNOVER time WAIVER for AQUATIC VENUES with extreme volume or operating conditions based on a proper engineering justification.

(D) TURNOVER times shall be calculated based solely on the flow rate through the filtration system as specified in **Table 2-502.9**.

(E) The total volume of the AQUATIC VENUE system shall include the AQUATIC VENUE and any surge/balance tank.

(F) Where water is drawn from the AQUATIC VENUE to supply water to AQUATIC FEATURES (e.g., SLIDES, tube rides), the water may be reused prior to filtration provided the DISINFECTANT and PH levels of the supply water are maintained at required levels.

(G) The ratio of INTERACTIVE WATER PLAY AQUATIC VENUE feature water to filtered water shall be no greater than 3:1 in order to maintain the efficiency of the FILTRATION SYSTEM.

(H) For AQUATIC FACILITIES that intend to reduce the recirculation flow rate below the minimum required design values when the AQUATIC VENUE is closed, the flow turndown system shall be designed as follows:

(1) The system flowrate shall not be reduced more than 50 percent lower than the minimum design requirements and only reduced when the AQUATIC VENUE is closed.

(2) The system flowrate shall be based on ensuring the minimum water clarity required under Section 3-506 is met before opening to the public.

(3) The system shall be required to maintain required DISINFECTANT and PH levels at all times.

(4) When the system is used to increase the recirculation flow rate above the minimum requirement (e.g., in times of peak use to maintain water quality goals more effectively) the following requirements shall not be exceeded:
(a) Velocity requirements inside of pipes (per Section 2-502.6(B));
(b) Maximum filtration system flow rate; and
(c) Maximum suction outlet cover rating.

2-503 Filtration

2-503.1 Filtration shall be required for all AQUATIC VENUES that recirculate water.

2-503.2 The granular media filter system shall have valves and piping to allow isolation, venting, complete drainage (for maintenance or inspections), and backwashing of filters.

(A) Filtration accessories shall include the following items:
(1) Influent pressure gauge;
(2) Effluent pressure gauge;
(3) Backwash sight glass or other means to view backwash water clarity; and
(4) Manual air relief system.

(B) Filters shall be installed with adequate clearance and facilities for ready and safe inspection, maintenance, disassembly, and repair. A means and access for easy removal of filter media shall be required.

(C) High-rate granular media filters shall be designed to operate at no more than the rate specified in the NSF/ANSI 50 listing or as provided per manufacturer, whichever rating is lower.

(D) The granular media filter system shall be designed to backwash each filter at a rate of at least 15 gallons per minute per square foot of filter bed surface area, unless explicitly prohibited by the filter manufacturer and APPROVED at an alternate rate as specified in the NSF/ANSI 50 listing.

(E) The minimum depth of filter media cannot be less than the depth specified by the manufacturer.

(F) Influent and effluent pressure gauges shall have the capability to measure up to 20 pounds per square inch increase in the differential pressure across the filter bed in increments of one pound per square inch or less.

(G) If coagulant feed systems are used, they shall be installed with the injection point located before the filters as far ahead as possible, with electrical interlocks in accordance with Sections 2-504.2(B) and (J).

2-503.3 Precoat Filters

(A) Filters should be used with the appropriate filter media as recommended by the filter manufacturer for maximum clarity and cycle length for AQUATIC VENUE use.
(1) Filter media shall be listed and labeled to NSF/ANSI Standard 50 by an ANSI-accredited certification organization and within the size specifications provided by the filter manufacturer and NSF/ANSI 50.
(2) Alternate types of filter media shall be permitted in accordance with the filter manufacturer's recommendation for AQUATIC VENUE use.

(3) Alternate types of filter media shall be listed and labeled to NSF Standard 50 by an ANSI-accredited certification organization.

(B) The design filtration rate for vacuum precoat filters shall not be greater than either:
(1) 2 gallons per minute per square foot, or
(2) 2.5 gallons per minute per square foot when used with a continuous precoat media feed.

(C) The design filtration rate for pressure precoat filters shall not be greater than the rate specified in the NSF/ANSI 50 listing or as provided per manufacturer, whichever rating is lower.

(D) The filtration surface area shall be based on the outside surface area of the media with the manufacturer's recommended thickness of precoat media. If equipment is provided for the continuous feeding of filter media to the filter influent, the equipment shall be used in accordance with the manufacturer's specifications.

(E) All discharged filter media shall be disposed of according to the law.

2-503.4 Cartridge Filters

(A) The design filtration rate for surface-type cartridge filter shall not exceed the rate specified in the NSF/ANSI 50 listing or as provided per manufacturer, whichever rating is lower.

(B) Filter cartridges shall be supplied and sized in accordance with the filter manufacturer's recommendation for AQUATIC VENUE use.

2-504 Disinfection and pH Control

2-504.1 Chemical Addition Methods

(A) DISINFECTION and PH control chemicals shall be automatically introduced through the RECIRCULATION SYSTEM.

(B) A chemical controller, as specified in Section 2-504.2(V) shall be provided and used for MONITORING and control of disinfectant and PH feed equipment.

(C) DISINFECTION and PH control chemicals shall be added using a feeder that meets the requirements outlined in Section 2-504.2.

2-504.2 Feed Equipment

(A) Chemical feeders shall be required on all new construction or at the SUBSTANTIAL ALTERATION of all AQUATIC VENUES following the adoption of these Regulations.

(B) The AQUATIC FACILITY shall be equipped with chemical feed equipment such as flow-through chemical feeders, electrolytic chemical generators, mechanical chemical feeders, chemical feed pumps, and AUTOMATED CONTROLLERS. All chemical feeders shall be provided with an automatic means to be disabled through an electrical interlock with at least two of the following:
(1) Recirculation pump power;
(2) Flow meter/flow switch in the return line; and/or
(3) Chemical control power and paddle wheel or flow cell on the chemical controller if a safety test confirms feed systems are disabled through the controller when the pump is turned off, loses prime, or filters are backwashed.

(C) The chemical feeders shall be installed according to the manufacturer's instructions.

(D) A physical BARRIER shall be installed between chemical feed pumps supplying acid or liquid hypochlorite solution and other AQUATIC VENUE

components to shield staff and equipment from chemical sprays and leaking connections.

(E) Feeders shall be capable of supplying disinfectant and PH control chemicals to the AQUATIC VENUE to maintain the minimum required DISINFECTION levels at all times in accordance with these Regulations.

(F) All CHLORINE dosing and generating equipment including erosion feeders, or in line electrolytic and brine/batch generators, shall be designed with a capacity to provide the following:

- **(1)** Outdoor AQUATIC VENUES: 4.0 lbs of FAC/day/10,000 gal of AQUATIC VENUE water;
- **(2)** Indoor AQUATIC VENUES: 2.5 lbs FAC/day/10,000 gal of AQUATIC VENUE water.

(G) The rates above are suggested minimums and in all cases the engineer shall validate the feed and production equipment specified.

(H) The injection point of DISINFECTION chemicals shall be located before any PH control chemical injection point with sufficient physical separation of the injection points to reduce the likelihood of mixing of these chemicals in the piping during periods of interruption of the RECIRCULATION SYSTEM flow.

(I) Means of injection shall not allow BACKFLOW into the chemical system from the AQUATIC VENUE system.

(J) Coagulants shall be metered and injected through a pump system prior to the filters per the manufacturer's recommended rate.

(K) Use of compressed CHLORINE gas shall be prohibited for new construction and after SUBSTANTIAL ALTERATION to existing AQUATIC FACILITIES.

(L) Use of compressed CHLORINE gas in existing AQUATIC FACILITIES is covered in Section 3-503.1(D).

(M) Liquid solution feeders shall include positive displacement pumps such as peristaltic pumps, diaphragm pumps, venturi feeders, and piston pumps.

(N) Feed rates shall be locally adjusted on the pumps and also on/off controlled using an AUTOMATED CONTROLLER.

(O) Erosion feeders may be pressure, pressure differential, or spray erosion types.

- **(1)** Dry chemicals shall be granules or tablets.
- **(2)** Feeders shall have isolation valves on each side of the feeder to be closed before opening the unit.
- **(3)** Erosion feeders shall use AQUATIC VENUE water post-filtration as the source water unless APPROVED by the feeder manufacturer.

(P) Carbon dioxide and ozone are the only gas feed systems permitted in AQUATIC FACILITIES.

(Q) Proper ventilation shall be required for all gas systems.

(R) Where CO_2 cylinders are located indoors, a monitor and alarm shall be provided to alert of high CO_2 and/or low O_2 levels.

(S) Where used, UV light systems shall be installed in the RECIRCULATION SYSTEM after the filters.

- **(1)** A bypass pipe that is valved on both ends shall be installed to allow maintenance of the UV unit while the AQUATIC VENUE is in operation.

(2) UV system operation shall be interlocked with the recirculation pump so that power to the UV system is interrupted when there is no water flow to the UV unit.

(T) In-line generator(s) or brine (batch) generator(s) shall be permitted on AQUATIC VENUES.

(1) In-line generators shall use POOL-grade salt dosed into the AQUATIC VENUE to produce and introduce CHLORINE into the AQUATIC VENUE treatment loop through an electrolytic chamber.

(2) Brine (Batch) generators shall produce CHLORINE through an electrolytic cell.

(3) CHLORINE shall be produced from brines composed of POOL-grade salt.

(4) Electrolytic generators shall have a TDS or salt (NaCl) readout and a low salt indicator.

(5) The feed rate shall be adjustable from zero (0) to full range.

(6) The generator unit shall be listed and labeled to UL 1081 (for electrical, fire and shock safety) by an ANSI-accredited certification organization.

(7) The generator(s) shall be interlocked.

(8) The saline content of the AQUATIC VENUE water shall be maintained in the required range specified by the manufacturer.

(U) Feeders for PH adjustment shall:

(1) Utilize APPROVED substances for PH adjustment shall include but not be limited to muriatic (hydrochloric) acid, sodium bisulfate, carbon dioxide, sulfuric acid, sodium bicarbonate, and soda ash;

(2) Be adjustable from zero (0) to full range; and

(3) Have reservoirs clearly marked and labeled with its contents.

(V) AUTOMATED CONTROLLERS shall be installed for MONITORING and turning on or off chemical feeders used for PH and disinfectants. A set point shall be used to target the disinfectant level and the PH level.

2-504.3 SECONDARY DISINFECTION SYSTEMS

(A) The new construction or SUBSTANTIAL ALTERATION of the following INCREASED RISK AQUATIC VENUES shall be required to use a SECONDARY DISINFECTION SYSTEM after adoption of these Regulations:

(1) AQUATIC VENUES designed primarily for children under 5 years old; such as:

(a) WADING POOLS,

(b) CHILD AMUSEMENT LAGOONS, and

(c) INTERACTIVE WATER PLAY VENUES with no standing water;

(2) THERAPY POOLS; and

(3) ISOLATION AND FLOTATION UNITS.

(B) If installed and labeled as SECONDARY DISINFECTION SYSTEMS, then they shall conform to all requirements specified under Section 2-504.3(C).

(C) 3-log inactivation and OOCYST Reduction

SECONDARY DISINFECTION SYSTEMS shall be designed to achieve a minimum 3-log (99.9 percent) reduction in the number of infective *Cryptosporidium parvum* OOCYSTS per pass through the SECONDARY DISINFECTION SYSTEM.

(1) The SECONDARY DISINFECTION SYSTEM shall be located in the treatment loop (post filtration) and treat a portion (up to 100

percent) of the filtration flow prior to return of the water to the AQUATIC VENUE or AQUATIC FEATURE.

(2) The flow rate (Q) through the SECONDARY DISINFECTION SYSTEM shall be determined based upon the total volume of the AQUATIC VENUE or AQUATIC FEATURE (V) and a prescribed dilution time (T) for theoretically reducing the number of assumed infective *Cryptosporidium* OOCYSTS from an initial total number of 100 million (10^8) OOCYSTS to a concentration of one OOCYST/100 mL.

(3) Accounting for a 3-log (99.9 percent) reduction of infective *Cryptosporidium* OOCYSTS through the SECONDARY DISINFECTION SYSTEM with each pass, the SECONDARY DISINFECTION SYSTEM flow rate (Q) shall be:

$Q = V \times \{[14.8 - \ln(V)] / (60 \times T)\}$, where:

- Q = SECONDARY DISINFECTION SYSTEM flow rate (GPM)
- V = Total water volume of the AQUATIC VENUE or AQUATIC FEATURE, including surge tanks, piping, equipment, etc. (gals)
- T = Dilution time (hrs.)

(4) The dilution time shall be the lesser of nine hours or 75 percent of the uninterrupted time an AQUATIC VENUE is closed in a 24 hour period.

(5) Where a SECONDARY DISINFECTION SYSTEM is installed, a means shall be installed to confirm the required flow rate to maintain a minimum 3-log (99.9 percent) reduction of infective *Cryptosporidium* OOCYSTS at the minimum flow rate.

(D) UV Light Systems

UV equipment shall be third party validated in accordance with the practices outlined in the US EPA Ultraviolet Disinfectant Guidance Manual dated November, 2006, publication number EPA 815-R-06-007.

(1) The US EPA Ultraviolet Disinfectant Guidance Manual shall be considered a recognized national standard in these Regulations.

(2) UV systems and all materials used therein shall be suitable for their intended use.

(3) The UV equipment shall be installed after the filtration and before the addition of primary disinfectant.

(a) UV equipment shall be labeled with the following design specifications: maximum flow rate, minimum TRANSMISSIVITY, minimum intensity, and minimum dosage.

(b) An inline strainer shall be installed after the UV unit to capture broken lamp glass or sleeves.

(4) The equipment shall be electrically interlocked with feature pump(s) or automated feature supply valves, such that when the UV equipment fails to produce the required dosage as measured by an automated sensor(s), the water features do not operate.

(5) UV systems shall not operate when the RECIRCULATION SYSTEM is not operating.

(6) The UV equipment shall be complete with calibrated UV sensors, which record the output of all the UV lamps installed in a system.

(a) Where multiple lamps are fitted, sufficient sensors shall be provided to measure each lamp.

(b) If the design utilizes fewer sensors than lamps, the location of lamps and sensors shall be such that the output of all lamps is adequately measured.

(7) The automated shut down of the UV equipment for any reason shall initiate a visual alarm or other indication which will alert staff on-site or remotely.

(a) Signage instructing staff or PATRONS to notify facility management shall be posted adjacent to the visual indication.

(b) If the AQUATIC FACILITY is not staffed, the sign shall include a means to contact management whenever the AQUATIC FACILITY is in use.

(8) The UV equipment shall be supplied with the appropriate validation reports and documentation for that equipment model.

(9) This documentation will include a graph or chart indicating the dose at which a 3-log inactivation is guaranteed for the system in question.

(a) This dose shall be inclusive of validation factors and RED BIAS.

(b) System performance curves that do not include such factors are not considered validated systems.

(10) Validation records shall include the graph indicating the minimum intensity reading required at the operational flow for the minimum RED required to achieve 3-log reduction. Where systems are validated to a specific dose, the graph shall show the minimum intensity reading required at the operational flow for that dose.

(11) Based on the recommended validation protocol presented in the US EPA Disinfection Guidance Manual, UV reactors certified by ÖNORM and DVGW for a *Bacillus subtilis* RED of 40mJ/cm^2 shall be granted 3-log *Cryptosporidium* and 3-log *Giardia* inactivation credit as required in these Regulations.

(E) Ozone DISINFECTION

SECONDARY DISINFECTION SYSTEMS using ozone shall provide the required inactivation of *Cryptosporidium* in the full flow of the SECONDARY DISINFECTION SYSTEM after any side-stream has remixed into the full flow of the SECONDARY DISINFECTION SYSTEM.

(1) Ozone systems shall be validated by an ANSI-accredited third party testing and certification organization to confirm that they provide a minimum 3-log (99.9 percent) inactivation of *Cryptosporidium* in the full SECONDARY DISINFECTION SYSTEM flow after any side-stream has remixed into the full SECONDARY DISINFECTION SYSTEM flow and prior to return of the water to the AQUATIC VENUE or AQUATIC FEATURE recirculation treatment loop.

(2) Ozone systems and all materials used therein shall be suitable for their intended use and shall be installed:

(a) In accordance with all applicable requirements,

(b) As listed and labeled to a specific standard by an ANSI-accredited certification organization, and

(c) As specified by the manufacturer.

(3) An ozone system shall be a complete system consisting of the following (either skid-mounted or components):

(a) Ozone generator;
(b) Injector / injector manifold;
(c) Reaction tank (contact tank) / mixing tank / degas tower;
(d) Degas valve (if applicable, to vent un-dissolved gaseous ozone;
(e) Ozone destruct (to destroy un-dissolved gaseous ozone);
(f) ORP monitor / controller;
(g) Ambient ozone monitor / controller;
(h) Air flow meter / controller; and
(i) Water BACKFLOW prevention device in gas delivery system.

(4) These components (or skid) shall be installed as specified by the manufacturer to maintain the required system validation as noted above.

(5) The ozone generating equipment shall be designed, sized, and controlled utilizing an ORP monitor/controller (independent of and in addition to any halogen ORP monitor/controller).
- **(a)** The device shall be placed in the AQUATIC VENUE and AQUATIC FEATURE recirculation water downstream of the ozone side-stream loop and before the halogen feed location.
- **(b)** The minimum ORP reading shall be no less than 600 mV measured directly after (one to five feet (1ft. to 5 ft.)) the ozone side-stream remixes into the full flow of the RECIRCULATION SYSTEM.
- **(c)** The maximum ORP reading shall be no greater than 900 mV.

(6) The ozone system injection point shall be located in the AQUATIC VENUE return line after the filtration and heating equipment, prior to the primary DISINFECTANT injection point.
- **(a)** The injection and mixing system shall not prevent the attainment of the recirculation rate required elsewhere in these Regulations.
- **(b)** An ambient ozone gas monitor/controller located adjacent to the ozone reactor/contact tank shall be utilized to disable the ozone system in the event of an ozone gas leak.

(7) At the time the ozone generating equipment is installed, again after 24 hours of operation, and annually thereafter, the air space within six (6) inches of the AQUATIC VENUE water shall be tested to determine compliance of less than 0.1 PPM gaseous ozone. Results of the test shall be maintained on site for review by the HEALTH AUTHORITY.

(8) Automatic shutdown shall occur under any condition that would result in the ozone system not operating within the established parameters needed to achieve a 3-log inactivation of *Cryptosporidium*.

(9) The equipment shall be electrically interlocked with AQUATIC VENUE pump(s) or automated feature supply valves, such that when the ozone equipment fails to produce the required dosage as measured by ORP, the AQUATIC VENUE does not operate.

(10) If the ORP reading for the ozone system drops below 600 mV, a visual alarm or other indication shall be initiated that will alert

staff on-site or remotely. Signage to notify facility management shall be adjacent to the visual alarm.

(11) In order to ensure that the supplied ozone system meets all the requirements of the standard, the manufacturer shall maintain a quality system audited on a regular basis to a recognized quality standard. The ozone system shall be supplied with the appropriate validation reports and documentation for that equipment model.

(a) Ozone validation reports shall include a graph, chart, or other documentation which clearly indicates the required operating parameters for which a 3-log inactivation is guaranteed for the system in question.

(b) This dose shall be inclusive of validation factors.

(c) System performance curves that do not include such factors are not considered validated systems.

2-504.4 SUPPLEMENTAL DISINFECTION SYSTEMS

(A) AQUATIC VENUES that do not require SECONDARY DISINFECTION SYSTEMS may install SUPPLEMENTAL DISINFECTION SYSTEMS for the purpose of enhancing overall system performance and improving water quality.

(1) SUPPLEMENTAL DISINFECTION SYSTEMS shall not be required on any AQUATIC VENUE.

(2) SUPPLEMENTAL DISINFECTION SYSTEMS are not required to meet the following requirements of a SECONDARY DISINFECTION SYSTEM:

(a) They do not need to achieve a 3-log (99.9 percent) inactivation of *Cryptosporidium parvum;* and

(b) They do not need to be able to reduce the total number of infective OOCYSTS to one OOCYST per 100 mL; and

(3) Each system shall be clearly labeled, "Supplemental Disinfection System."

(B) When UV is used as a SUPPLEMENTAL DISINFECTION SYSTEM, all requirements of Section 2-504.3(D)(2) through 2-504.3(D)(5) shall be met. Water features shall not require shut off if the supplemental UV system does not produce the required dosage.

(C) When ozone is used as a SUPPLEMENTAL DISINFECTION SYSTEM, all requirements of Section 2-504.3(E)(2) through 2-504.3(E)(7) shall be met. The maximum ORP reading shall be no greater than 900 mV.

(D) Only those systems that are EPA-registered for use as disinfectants in AQUATIC VENUES shall be permitted.

(1) Copper/silver systems, and all materials used therein, shall be suitable for their intended use.

(2) Copper/silver systems, and all materials used therein, shall be installed in accordance with all applicable requirements and manufacturer's instructions.

(E) UV light / hydrogen peroxide combination systems shall be prohibited for use in AQUATIC FACILITIES.

2-504.5 Microbiological Testing Equipment

Microbiological testing equipment and methods shall be:

(A) EPA-Approved, EPA-Accepted, EPA-Equivalent;

(B) Conforming to the latest edition of Standard Methods for the Examination of Water and Wastewater; and/or

(C) Listed and labeled to NSF/ANSI 50 by an ANSI-accredited certification organization.

2-6 Decks and Equipment

Subparts

2-601 Decks

2-601.1 DECKS shall be constructed in conformance with all applicable provisions of this Section.

(A) DECKS shall be designed to allow for required LIFEGUARD placement for BATHER surveillance and safety equipment.

(B) DECKS shall have a minimum of four (4) feet of clearance from the AQUATIC VENUE edge to fencing or other obstructions to allow for LIFEGUARD transit, roaming, or change of positioning, to maximize viewing the zone of BATHER surveillance as well as the execution of water extrication.

(C) Access points must be provided for LIFEGUARDS to transit between LIFEGUARD positions.

(D) The designer and OWNER shall consider impact the on BATHER surveillance when determining placement of structural, operational, and theme elements. These elements may include, but are not limited to:

(1) Chairs,
(2) Fencing,
(3) Landscaping elements,
(4) ADA access equipment, and
(5) AQUATIC FEATURES.

(E) Conditions between adjacent DECK materials, components, and concrete pours shall not have open joints or gaps larger than 3/16 inch wide, nor a maximum difference in vertical elevation of 1/4 inch.

(1) Any change in vertical elevation shall be considered an edge condition.
(2) Open joints or gaps larger than 3/16 inch wide or with vertical elevations exceeding 1/4 inch shall be rectified using appropriate fillers.
(3) The use of fillers such as caulk or sealant in joints or gaps shall be permitted for expansion and contraction.

(F) All DECK edges shall be beveled, rounded, or otherwise relieved to eliminate sharp corners.

(G) Joints in DECKING shall be provided to minimize the potential for cracks due to a change in elevation, for movement of the slab and for shrinkage control.

2-601.2 Finish materials for the PERIMETER DECK shall be suitable for the AQUATIC VENUE environment, non-toxic, and substantially impervious.

(A) Continuous watertight EXPANSION JOINT material shall be provided between PERIMETER DECKS and AQUATIC VENUE coping. Where applicable, the EXPANSION JOINT shall be designed and constructed so as to protect the coping and its mortar bed from damage as a result of movement of the adjoining DECK.

(B) All conditions between adjacent concrete PERIMETER DECK pours shall be constructed with watertight EXPANSION JOINTS.

(1) Joints shall be at least 3/16 inch in continuous width.

(2) The maximum allowable vertical differential across a joint shall be 1/4 inch.

2-601.3 DECKS shall be sloped away from the AQUATIC VENUE and in accordance with the following: Smooth finishes sloped at 1/8 inch per foot; moderately textured finishes sloped at 1/4 inch per foot; and heavily textured finishes sloped at 3/8 inch per foot.

(A) The slope of all DECK areas shall be in accordance with the law.

(1) All water that touches areas defined as DECK, including water originating in the AQUATIC VENUE, shall drain effectively to either perimeter areas or to DECK drains.

(2) Drainage shall remove AQUATIC VENUE water that splashes outside of the AQUATIC VENUE and beyond a PERIMETER GUTTER SYSTEM, DECK cleaning water, and rain water without leaving standing water.

(B) The placement of DECK drains, where provided, shall effectively carry water away from the AQUATIC VENUE and off the DECK without ponding.

(C) There shall be no direct connection between the DECK drains and the sanitary sewer system.

(1) DECK drains shall not drain to the AQUATIC VENUE, PERIMETER GUTTER SYSTEM, or any component of the RECIRCULATION SYSTEM.

(D) Drain receptacles shall consist of non-corrosive or corrosion-resistant materials.

(E) Drain covers shall be suitable for bare foot traffic with openings no greater than 1/2 inch and be easily removable with a simple tool to facilitate regular cleaning.

2-601.4 Materials/Slip Resistance

(A) PERIMETER DECK and POOL DECK shall be constructed with a uniform and easily cleaned surface such as concrete, tile, manufactured or acrylic surfaces.

(B) All DECKS shall have slip-resistant, textured finishes, which are not conducive to slipping under contact of bare feet in wet or dry conditions. All surfaces required to be slip-resistant shall have a minimum dynamic coefficient of friction at least equal to the requirements of ANSI A137.1-2012 for that installation as measured by the DCOF AcuTest.

(C) Carpet and artificial turf shall be prohibited materials for PERIMETER DECK and POOL DECK.

(D) Wood shall be a prohibited material for use as PERIMETER DECK.

(E) DRY DECK shall be easily maintained and not create an IMMINENT HEALTH HAZARD.

(1) DRY DECK shall not be required to be hard-paved or impervious.

(2) Wood DECKING may be permitted for DRY DECK.

(F) Loose plant material or bedding shall not be permitted within PERIMETER DECKS. Stable materials are permitted.

2-601.5 DECK Dimensions

(A) PERIMETER DECKS shall be four (4) feet minimum of unobstructed width around the AQUATIC VENUE perimeter.

(1) PERIMETER DECK may serve as part of the DESIGNATED WALKWAY.

(2) PERIMETER DECK areas shall be flush with AQUATIC VENUE walls or copings except where special conditions exist, such as elevated beam or parapet, raised transfer walls, or as permitted by other sections of these Regulations.

(B) PERIMETER DECKS shall be provided around 90 percent of the AQUATIC VENUE perimeter except where special conditions exist as permitted by other sections of these Regulations.

(1) Narrow AQUATIC VENUES where the entire perimeter and depth of the AQUATIC VENUE are readily reachable by a reaching pole and attached shepherd's crook from the PERIMETER DECK may obstruct up to 50 percent of the perimeter.

(2) A WAIVER may be submitted addressing all access concerns regarding BATHER rescue due to DECK obstructions.

(C) An unobstructed DECK area four (4) feet minimum in width shall be provided for access around:

(1) Diving equipment;
(2) Special feature stairways (such as a WATERSLIDE);
(3) Lifeguard stands;
(4) Diving boards;
(5) Similar DECK equipment;
(6) ADA access equipment;
(7) Structural columns; and
(8) Raised edge perimeters.

(D) This unobstructed area may overlap the DESIGNATED WALKWAY.

(1) Where reasonably anticipated, queuing space shall be provided at applicable equipment to minimize encroachment into the DESIGNATED WALKWAY.

(2) Free area around equipment may consist of PERIMETER DECK and/or POOL DECK, as applicable.

(E) A continuous and unobstructed DESIGNATED WALKWAY shall be provided in conformance with the law.

(1) DECK furniture locations shall be designed not to intrude upon any DESIGNATED WALKWAY.

(2) DESIGNATED WALKWAYS shall connect all site amenities, entrances and exits.

(3) DESIGNATED WALKWAYS may consist of any combination of permitted DECK types.

2-601.6 WING WALLS or PENINSULAS

(A) WING WALLS or PENINSULAS less than 18 inches in width shall not be considered a part of the PERIMETER DECK.

(1) A WING WALL or PENINSULA greater than 18 inches wide, but less than 48 inches wide, may be used by LIFEGUARD personnel, but shall not be considered as part of the PERIMETER DECK.

(2) Any WING WALL or PENINSULA intended to be accessed by LIFEGUARDS shall be constructed of slip-resistant materials.

(B) If it is impractical to design a perimeter overflow system into the WING WALL or PENINSULA due to width or height, then the overflow system may bypass the WING WALL or PENINSULA.

(C) WING WALLS and PENINSULAS shall be considered part of the AQUATIC VENUE. WING WALLS and PENINSULAS shall not be accounted for in calculating the AQUATIC VENUE perimeter.

(D) WING WALLS and PENINSULAS shall be at or above the normal operating water level of the AQUATIC VENUE.

(E) DECK drainage shall not be required for WING WALLS or PENINSULAS as they are considered part of the AQUATIC VENUE. The tops shall be crowned to prevent standing water and sloped to the AQUATIC VENUE or PERIMETER GUTTER SYSTEM.

(F) Vertical depth markers shall be provided around WING WALLS and PENINSULAS in accordance with these Regulations.

2-601.7 ISLANDS

(A) An ISLAND not more than 18 inches in width shall be designed to discourage a person from walking on the ISLAND by not providing stairs, ladders, or bridges to the ISLAND.

(B) The surface of ISLANDS intended for foot traffic shall be slip-resistant.

(C) An ISLAND 18 inches to 48 inches wide may be allowed for use only by LIFEGUARDS.

(D) Vertical depth markers shall be provided around ISLANDS in accordance with Section 2-3018.1 and visible from all sides.

(E) Horizontal depth markings and warning signs shall also be required per Section 2-3018.1 if the ISLAND is designed for BATHER use. If the ISLAND is not designed for BATHER use, warning signs stating "No Entry" shall be required.

(F) An ISLAND designed for BATHER traffic shall be accessible by bridge, ramp, ladder, or stairway from the AQUATIC VENUE.

(G) All bridges spanning an AQUATIC VENUE or any other structures not intended for interactive play shall have a minimum clearance of eight (8) feet from the bottom of the AQUATIC VENUE and not less than four (4) feet from the top of the water to any structure overhead.

(H) Any bridge shall have a minimum 42 inch high BARRIER on both sides.

2-601.8 Domestic water hose bibs shall be provided in sufficient quantity, spacing, and type to wash down PERIMETER DECK and POOL DECK areas using a hose. All hose bibs shall be equipped with appropriate BACKFLOW prevention devices.

2-602 Diving Boards and Platforms

2-602.1 Diving boards and platforms shall be permitted only when the diving envelope and equipment conforms to the standards of one of the certifying agencies that regulate competitive diving. Such certifying agencies include FINA, NCAA, USA Diving, and NFSHSA.

2-603 Starting Platforms

2-603.1 Starting platforms shall be installed and conform to applicable safety standards established by FINA, USA Swimming, NCAA, NFSHSA, YMCA, or other sanctioning bodies.

2-603.2 Starting platforms shall be installed in a minimum water depth of four (4) feet.

2-603.3 The leading edge of starting platforms shall have a maximum height of 30 inches above the water surface.

2-603.4 Starting platforms shall have slip-resistant tread surfaces.

2-603.5 Starting platforms shall be installed and secured per manufacturer's recommendations at all times when in use.

2-604 Enclosures and Barriers

2-604.1 The ENCLOSURE may consist of any combination of building envelopes, site walls, or fencing as provided for in this Section.

(A) ENCLOSURES shall be provided between CHEMICAL STORAGE SPACES, AQUATIC VENUE, mechanical spaces, and areas accessible to the public, in accordance with local building codes.

2-604.2 Construction Requirements

(A) ENCLOSURES for AQUATIC VENUES shall not block or encumber a required emergency egress path from other structures.

(B) Windows on a building that form part of an ENCLOSURE around an AQUATIC VENUE shall have a maximum opening width not to exceed four (4) inches.

(C) Living or lodging units shall not enter directly into a common AQUATIC VENUE ENCLOSURE.

(D) For the purposes of this Section, height shall be measured from finished grade to the top of the ENCLOSURE on the side outside of the ENCLOSURE surrounding an AQUATIC VENUE.

(1) Where a change in grade occurs at an ENCLOSURE, height shall be measured from the uppermost grade to the top of the ENCLOSURE.

(2) AQUATIC FACILITY ENCLOSURES shall not be less than six (6) feet in height for all new construction, SUBSTANTIAL ALTERATION, or any ENCLOSURE alterations.

(3) Any vertical members in the ENCLOSURE must not be more than four (4) inches apart. Any opening at the bottom of the ENCLOSURE must not be more than four (4) inches in height. Mesh style fencing must not exceed 1 3/4 inch openings.

(4) The ENCLOSURE must be installed above a fixed, permanently installed solid surface.

(5) Except where otherwise noted, all other BARRIERS not serving as part of an AQUATIC FACILITY ENCLOSURE shall not be less than 42 inches in height.

2-604.3 Gates and Doors

(A) Egress from a publicly accessible space within a building shall not open directly into the ENCLOSURE of the AQUATIC VENUE.

(B) All primary public access gates or doors serving as part of an AQUATIC FACILITY ENCLOSURE or required AQUATIC VENUE ENCLOSURE must be self-closing and self-latching from any open position.

(C) All gates or doors shall be capable of being locked from the exterior. Electronically locked gates must be equipped with a back up battery to maintain function when power is interrupted.

(D) Gates or doors shall be designed in such a way that they do not prevent egress in the event of an emergency.

(E) Gates shall be at least equal in height at top and bottom to the ENCLOSURE of which they are a component.

(F) Unattended turnstiles shall not form a part of an AQUATIC FACILITY ENCLOSURE.

(G) All public access gates exiting the ENCLOSURE shall not require the use of a key or tool.

(H) EXIT GATES shall swing away from the AQUATIC VENUE ENCLOSURE except where emergency egress codes require them to swing into the AQUATIC VENUE ENCLOSURE.

(I) Self-latching mechanisms:

(1) Must be located not less than 3 1/2 feet above finished grade and

(2) Shall not be operable by small children on the outside of the ENCLOSURE around the AQUATIC VENUE.

(J) For all other AQUATIC VENUES, EXIT GATES or doors shall be constructed so as to prevent unauthorized entry from outside of the ENCLOSURE around the AQUATIC VENUE.

(K) In lieu of meeting the requirements of Section 2-604, AQUATIC FACILITIES with 24-hour security by one or more persons with a physical presence at all AQUATIC VENUES within an ENCLOSURE may apply for a WAIVER to this Section.

2-604.4 INDOOR AQUATIC VENUES

(A) Building walls enclosing an INDOOR AQUATIC FACILITY may be designated as the AQUATIC FACILITY ENCLOSURE.

(B) INDOOR AQUATIC VENUES shall be securable from unauthorized entry from other building areas and the exterior.

(C) Where separate indoor and outdoor AQUATIC VENUES are located on the same site, an AQUATIC VENUE ENCLOSURE shall be provided between them. **Exception:** Where all AQUATIC VENUES are operated continuously 12 months a year on the same schedule.

2-604.5 Except as otherwise required in these Regulations, one ENCLOSURE may surround multiple AQUATIC VENUES at one facility.

(A) WADING POOLS and CHILD AMUSEMENT LAGOONS shall not require separation from other WADING POOLS and CHILD AMUSEMENT LAGOONS by a BARRIER. Refer to Section 2-1008 for additional guidance about WADING POOLS.

2-605 Aquatic Venue Cleaning Systems

2-605.1 The cleaning system provided shall not create an entanglement or suction entrapment hazard or interfere with the operation or use of the AQUATIC VENUE.

2-605.2 If there are multiple AQUATIC VENUES at one AQUATIC FACILITY, the AQUATIC FACILITY may use common cleaning equipment.

2-605.3 Use of integral vacuum systems, meaning a vacuum system that uses the main circulating pump or a dedicated vacuum pump connected to the AQUATIC VENUE with PVC piping and terminating at the AQUATIC VENUE with a flush-mounted vacuum port fitting, shall be prohibited.

2-605.4 Where used, portable vacuum cleaning equipment shall be powered by circuits having GFCIs.

2-605.5 Any ROBOTIC CLEANERS shall utilize low voltage for all components that are immersed in the AQUATIC VENUE water and be connected to a GFCI equipped circuit.

2-7 Recirculation Equipment Room

Subparts

2-701 Equipment Room

2-701.1 Indoor equipment room floors shall be of concrete or other suitable material having a smooth slip-resistant finish and shall have positive drainage, including a sump drain pump if necessary. Walls shall be finished in nonabsorbent material from floor level to four (4) feet in height.

2-701.2 The following applies to all EQUIPMENT ROOMS:

(A) Floors shall have a slope toward the floor drain and/or sump drain pump adequate to prevent standing water at all times.

(B) Wall-floor junctures shall include curb construction of minimum height of four (4) inches.

(C) The opening to the EQUIPMENT ROOM or area shall be designed to provide access for all anticipated equipment.

(D) At least one hose bib with an appropriate BACKFLOW preventer shall be located in the EQUIPMENT ROOM or shall be accessible within an adequate distance of the EQUIPMENT ROOM so that a hose can service the entire EQUIPMENT ROOM.

2-701.3 The size of the EQUIPMENT ROOM or area shall provide working space to perform routine operations and equipment service.

(A) EQUIPMENT ROOMS also intended for storage shall have adequate space provided for such storage, without reducing the working spaces.

(B) EQUIPMENT ROOMS or areas shall be lighted to provide 30 FOOT CANDLES (323 lux) of illumination at floor level.

2-701.4 All electrical wiring shall conform to the current edition of the NEC. Equipment, components, and their application and installation must conform to the NRTL listing.

2-701.5 EQUIPMENT ROOM ventilation shall address:

(A) Combustion requirements;

(B) Heat dissipation from equipment;

(C) Humidity from surge or balance tanks;

(D) Ventilation to the outside; and

(E) Air quality.

2-701.6 All piping in the EQUIPMENT ROOM shall be permanently identified by its use and the AQUATIC VENUE and AQUATIC FEATURE it serves.

(A) Identification shall be provided for:

(1) Main drains and SKIMMERS;

(2) Filtered water;

(3) Make-up water;

(4) Backwash water;

(5) Disinfectant feeds;

(6) Acid (or PH) feeds;

(7) Compressed air lines;

(8) Gutters;

(9) Chemical sample piping; and

(10) AQUATIC VENUE heating lines.

(B) All piping shall be marked with directional arrows as necessary to determine flow direction.

(1) A water-resistant, easily read, wall-mounted piping diagram shall be furnished and installed inside the EQUIPMENT ROOM.

2-701.7 Separation from CHEMICAL STORAGE SPACES

(A) Combustion equipment, air-handling equipment, and electrical equipment shall not be exposed to air contaminated with corrosive chemical vapors.

(B) Doors between an EQUIPMENT ROOM and an INDOOR AQUATIC FACILITY shall be equipped with an automatic closer. The door, frame, and automatic closer shall be installed and maintained to ensure that the door closes completely, latches, and locks without human assistance.

(1) The locks shall require a key or combination to open from the INDOOR AQUATIC FACILITY side.

(2) The locks shall be designed and installed to be opened by one hand from the inside of the room under all circumstances, without the use of a key or tool.

(C) Doors shall be equipped with permanent signage warning against unauthorized entry.

(D) All sides of the doors shall be equipped with a gasket. The gasket shall be installed to prevent the passage of air, or vapors when the door is closed.

2-701.8 Other EQUIPMENT ROOM Requirements

(A) Where ventilation, air filtration, or space dehumidification, heating, or cooling for an INDOOR AQUATIC FACILITY is by mechanical equipment located in an EQUIPMENT ROOM, adequate access space must be provided to allow for inspection and service.

(B) Equipment may be installed in an outdoor ENCLOSURE provided the following conditions are met:

(1) Equipment must be securely installed on level concrete pads.

(2) Exposed plumbing must be protected from UV.

(3) Overhead UV protection must be provided.

(4) Unpaved areas within the ENCLOSURE shall be graded to allow for proper drainage with suitable ground cover to prevent the generation of mud in areas between equipment.

(C) Equipment installed below grade shall be equipped with stairs and an associated handrail that meets applicable building code standards.

2-702 Chemical Storage Spaces

Nothing in this Section shall be construed as providing relief from applicable requirements of fire codes, mechanical codes, electrical codes, etc.

2-702.1 If AQUATIC VENUE chemicals, acids, salt, oxidizing cleaning materials, or other corrosive or oxidizing chemicals are stored outdoors, they must be stored in a well-ventilated protective area with an installed ENCLOSURE to prevent unauthorized access as per Section 2-702.2.

(A) At least one space dedicated to chemical storage space shall be provided to allow safe storage of the chemicals present.

2-702.2 Equipment listed for outdoor use may be located in exterior CHEMICAL STORAGE SPACES as permitted.

(A) Exterior CHEMICAL STORAGE SPACES not joined to a wall of a building shall be completely enclosed by fencing that is at least six (6) feet high and meets the ENCLOSURE requirements.

(B) Fencing shall be equipped with a self-closing and self-latching gate having a permanent locking device.

2-702.3 Exterior CHEMICAL STORAGE SPACES shall be equipped with overhead UV protection.

2-702.4 Combustion Equipment in Interior CHEMICAL STORAGE SPACES

(A) No COMBUSTION DEVICE or appliance shall be installed in a CHEMICAL STORAGE SPACE, or in any other place where it will be exposed to the air from a CHEMICAL STORAGE SPACE.

(B) ***Exception:*** A COMBUSTION DEVICE or appliance which meets all of the following requirements shall be acceptable:

(1) The device or appliance is required for one or more processes integral to the function of the room, such as space heat;

(2) The device is listed for such use; and

(3) The device as installed is APPROVED by the HEALTH AUTHORITY.

2-702.5 Ozone Rooms

(A) An ozone EQUIPMENT ROOM shall not be used for storage of chemicals, solvents, or any combustible materials, other than those required for the operation of the recirculation and ozone generating equipment.

(B) Rooms which are designed to include ozone equipment shall be equipped with an emergency ventilation system capable of six air changes per hour.

(1) The exhaust intake shall be located approximately six (6) inches from the floor, on the opposite side of the room from the make-up air intake.

(2) The emergency ventilation system shall be so arranged as to run on command of an ozone-leak alarm or on command of a manual switch.

(3) The manual emergency ventilation switch shall be located outside the room and near the door to the ozone room.

(C) Ozone rooms which are below grade shall be equipped with forced-draft ventilation capable of six (6) air changes per hour.

(1) The exhaust intake shall be located approximately six (6) inches from the floor, on the opposite side of the room from the make-up air intake.

(2) The ventilation system shall be arranged to:

(a) Run automatically concurrent with the ozone equipment and for at least a time allowing for 15 air changes after the ozone equipment is stopped;

(b) Run upon activation of the ozone detection and alarm system; and

(c) Run on command of a manual switch.

(3) The manual ventilation switch shall be located outside the room and near the door to the ozone room.

(D) In addition to the signs required on all chemical storage areas, a sign shall be posted on the exterior of the entry door, stating "DANGER - GASEOUS OXIDIZER – OZONE" in lettering not less than four (4) inches high.

(E) Rooms containing ozone generation equipment shall be equipped with an audible and visible ozone detection alarm system.

(1) The alarm system shall consist of both an audible alarm capable of producing at least 85 decibels at ten (10) feet distance, and a visible alarm consisting of a flashing light mounted in plain view of the entrance to the ozone-EQUIPMENT ROOM.

(2) The ozone sensor shall be located at a height of 18-24 inches above floor level and shall be capable of measuring ozone in the range of 0-2 PPM.

(3) The alarm system shall activate when the ozone concentration equals or exceeds 0.1 PPM in the room.

(4) Activation of the alarm system shall shut off the ozone generating equipment and turn on the emergency ventilation system.

(F) Use of compressed CHLORINE gas shall be prohibited for new construction and after SUBSTANTIAL ALTERATION to existing AQUATIC FACILITIES.

2-8 Hygiene Facilities

Subparts

2-801 General

2-801.1 All design provisions shall be required for new construction or SUBSTANTIAL ALTERATION to an existing AQUATIC FACILITY.

2-801.2 AQUATIC FACILITIES shall provide HYGIENE FACILITIES that include, at a minimum, toilets, urinals, SHOWERS, hand washing sinks and other HYGIENE FIXTURES, as specified herein.

2-801.3 HYGIENE FACILITIES shall be constructed in accordance with relevant law or as modified herein.

2-801.4 The minimum numbers of toilets, urinals, hand washing sinks and other HYGIENE FIXTURES provided, excluding SHOWERS, shall be in accordance with the current building codes and standards.

2-802 Location

Except as required in Section 2-802.1 and 2-802.2, a drinking fountain, toilet, and hand washing sink shall be located no greater than 300 feet walking distance (along a path designated for pedestrian traffic) from each AQUATIC VENUE.

Exemption: Unless otherwise specified, AQUATIC VENUES located within 300 feet walking distance of all lodging or residential settings are exempt from this Section.

2-802.1 An AQUATIC VENUE designed primarily for use by children less than five (5) years of age shall have a drinking fountain, toilet, and HAND WASH STATION located no greater than 200 feet walking distance and in clear view from the nearest entry/exit of the AQUATIC VENUE.

2-802.2 SPAS shall have a drinking fountain located no greater than 100 feet walking distance from the SPA.

2-803 Design and Construction

2-803.1 The floors of HYGIENE FACILITIES and dressing areas serving AQUATIC FACILITIES shall have a smooth, easy-to-clean, impervious-to-water, slip-resistant surface. All surfaces required to be slip-resistant shall have a minimum dynamic coefficient of friction at least equal to the requirements of ANSI A137.1-2012 for that installation as measured by the DCOF AcuTest.

2-803.2 A hard, smooth, impervious-to-water, easy-to-clean base shall provide a sealed, coved juncture between the wall and floor and extend upward on the wall at least six (6) inches.

2-803.3 Floor drains shall be installed in HYGIENE FACILITIES and dressing areas where PLUMBING FIXTURES are located.

(A) Floor drain opening grill covers shall be 1/2-inch or less in width or diameter.

(B) Floors shall be sloped to drain water or other liquids.

2-803.4 Partitions and ENCLOSURES adjacent to HYGIENE FACILITIES shall have a smooth, easy-to-clean, impervious surface.

2-803.5 At least one hose bibb or other potable water source capable of connecting a hose shall be located in each HYGIENE FACILITY to facilitate cleaning.

2-804 Plumbing Fixture Requirements

2-804.1 PLUMBING FIXTURES shall be installed and operated in a manner to adequately protect the potable water supply from BACKFLOW in accordance with applicable law.

(A) PLUMBING FIXTURES shall be designed so that they may be readily and frequently cleaned, SANITIZED, and disinfected.

(B) Drinking fountains must be installed outside of HYGIENE FACILITIES.

2-804.2 CLEANSING SHOWERS

(A) The minimum number of CLEANSING SHOWERS shall be one (1) per gender for AQUATIC FACILITIES less than 4,000 square feet in collective AQUATIC VENUE surface area. An additional CLEANSING SHOWER per gender shall be added for each additional 4,000 square feet of AQUATIC VENUE surface area or portion thereof.

(B) CLEANSING SHOWERS shall be evenly distributed between genders.

(C) CLEANSING SHOWERS shall be located in a HYGIENE FACILITY near the entrance and within clear view of the AQUATIC VENUE.

(D) Entryway to private or group CLEANSING SHOWER areas shall be enclosed by a door or curtain.

(1) SHOWER doors shall be of a smooth, hard, easy-to-clean material.

(2) SHOWER curtains shall be of a smooth, easy-to-clean material.

(E) CLEANSING SHOWERS shall be supplied with soap in a soap dispenser adjacent to the SHOWER.

Exemption: AQUATIC VENUES located in lodging or residential settings shall be exempt from Section 2-804.2.

2-804.3 RINSE SHOWERS

(A) A minimum of one RINSE SHOWER shall be provided on the DECK near an entry point to the AQUATIC VENUE.

(B) Floors of RINSE SHOWERS shall be sloped to drain wastewater away from the AQUATIC VENUE and meet local applicable codes.

(C) RINSE SHOWER drains shall discharge to the sanitary sewer.

(D) RINSE SHOWERS in AQUATIC FACILITIES greater than 7,500 square feet of water surface area shall be situated adjacent to each AQUATIC

VENUE entry point or arranged to encourage BATHERS to use the RINSE SHOWER prior to entering the AQUATIC VENUE.

(E) A minimum of four (4) showerheads per 50 feet of beach entry AQUATIC VENUES shall be provided as a RINSE SHOWER located not more than 30 feet from the AQUATIC VENUE or queuing area.

(F) A minimum of one RINSE SHOWER shall be provided at each entrance to a LAZY RIVER AQUATIC VENUE.

(G) A minimum of one RINSE SHOWER shall be provided at each entrance to a WATERSLIDE queue line.

2-804.4 AQUATIC FACILITIES with 7,500 square feet of water area or more may be flexible in the number of CLEANSING SHOWERS they provide based on the THEORETICAL PEAK OCCUPANCY:

(A) 25 percent of the required SHOWERS shall be CLEANSING SHOWERS,

(B) 25 percent of the required SHOWERS shall be RINSE SHOWERS, and

(C) The remaining 50 percent may be either CLEANSING or RINSE SHOWERS.

2-804.5 Non-PLUMBING FIXTURE Requirements

(A) All HYGIENE FIXTURES and appurtenances in the dressing area shall have a smooth, hard, easy-to-clean, impervious-to-water surface and be installed to allow thorough cleaning.

(B) Glass, excluding mirrors and lighting fixtures, shall not be permitted in HYGIENE FACILITIES.

(C) Mirrors and light fixtures shall be shatter resistant.

(D) If lockers are provided, they shall be installed at least 3.5 inches above the finished floor or on legs or a base at least 3.5 inches high and far enough apart to allow for cleaning and drying underneath the locker.

(E) Soap dispensers shall be securely attached adjacent to hand washing sinks and at each CLEANSING SHOWER. The dispensers shall be of all metal, plastic, or other shatterproof materials that can be readily and frequently cleaned.

(F) Hand dryers or paper towel dispensers shall be provided and securely attached adjacent to hand washing sinks. Hand dryers and paper towel dispensers shall be of all metal, plastic or other shatterproof materials that can be readily and frequently cleaned.

(G) Toilet paper dispensers shall be securely attached to wall or partition adjacent to each toilet.

(H) In female HYGIENE FACILITIES, covered receptacles adjacent to each toilet shall be provided for disposal of used feminine hygiene products.

(I) A minimum of one (1) hands-free trash receptacle shall be provided in areas adjacent to hand washing sinks.

2-805 Provisions of Suits, Towels, and Shared Equipment

AQUATIC FACILITIES supplying reusable suits, towels, and/or shared equipment shall provide adequate equipment and space for cleaning, sanitizing, drying, and storing of these materials.

2-806 Foot Baths are Prohibited

Foot Baths are standing water in which BATHERS or aquatics staff rinse their feet. Foot baths are prohibited.

2-9 Water Supply and Wastewater Disposal

Subparts

2-901 Water Supply

2-901.1 Water serving an AQUATIC FACILITY shall be supplied from a potable water source.

(A) Other water sources such as lakes or springs may be APPROVED to serve an AQUATIC FACILITY by the HEALTH AUTHORITY.

(B) Use of condensate water, collected rain water, or other reclaimed water for water serving an AQUATIC VENUE is prohibited.

2-901.2 The water supply shall have sufficient capacity to simultaneously serve all PLUMBING FIXTURES.

2-901.3 The water supply shall have sufficient capacity and pressure to refill the AQUATIC VENUE to the operating water level after backwashing filters and after any splashing or evaporative losses within one hour if the AQUATIC VENUE is operational at the time of the backwash.

2-901.4 AQUATIC FACILITIES not having dependable DISINFECTION and filtration systems or failing to maintain such systems in accordance with these Regulations shall provide weekly bacteriological testing results from a State certified laboratory of water samples taken from each AQUATIC VENUE. 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 a positive test (confirmed test) for total 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.

2-902 Fill Spout

2-902.1 A fill spout used at an AQUATIC VENUE shall be located so it is not a safety hazard to BATHERS.

2-902.2 The open end of a fill spout shall not have sharp edges or protrude more than two (2) inches beyond the edge of the AQUATIC VENUE.

2-902.3 The open end of a fill spout shall be separated from the water by an air gap of at least 1.5 pipe diameters measured from the pipe outlet to the AQUATIC VENUE.

2-903 Cross-Connection Control

2-903.1 The potable water supply serving an AQUATIC VENUE shall be protected against BACKFLOW by one of the following:

(A) An acceptable air gap consisting of a vertical distance of not less than two pipe diameters of the water supply pipe or six (6) inches, whichever is greater, over the lowest free-flowing discharge point of the receiving pipe, tank, or vessel. Splash guards that are open to the atmosphere may be used around the air gap; or

(B) An APPROVED RPZ or a pressurized vacuum breaker (PVB) BACKFLOW preventer installed according to the plumbing code and the HEALTH

AUTHORITY. All BACKFLOW prevention devices installed must be tested on an annual basis.

2-904 Sanitary Wastes

Wastewater from all PLUMBING FIXTURES in the entire AQUATIC FACILITY shall be discharged to a sanitary sewer system.

2-905 Pool Wastewater

2-905.1 Wastewater from an AQUATIC VENUE, including filter backwash water, shall be discharged indirectly, via a sump pit through an air-gap to a sanitary sewer system having sufficient capacity to collect and treat wastewater.

(A) Wastewater shall not be directed to storm water systems or surface waters.

(B) A water recovery and reuse system may be submitted to the HEALTH AUTHORITY for review and approval.

2-905.2 The wastewater disposal system shall have sufficient capacity to receive wastewater without flooding when filters are cleaned or when the AQUATIC VENUE is drained.

2-905.3 A separate line equipped with a valve shall be installed to bypass the filter and discharge to waste indirectly for the purpose of draining the AQUATIC VENUE.

2-905.4 The sump pit must be located where it does not impede access to equipment or present a hazard. Access to the sump pit must not be obstructed. Any cover placed over the sump pit shall allow for regular inspection and maintenance, and shall not impede the flow of wastewater into the pit.

2-10 Special Use Aquatic Venues

Subparts

2-1001 General Requirements

2-1001.1 SPECIAL USE AQUATIC VENUES shall comply with the applicable requirements stated in these Regulations as well as the additional provisions or reliefs of this Section.

2-1001.2 The DESIGN PROFESSIONAL or licensed contractor, shall provide information to adequately support why the SPECIAL USE AQUATIC VENUE does not meet the definition and use characteristics of other categories of AQUATIC VENUES or POOLS listed in these Regulations.

2-1001.3 A WAIVER must be submitted when the design specifications do not meet the standards outlined in Section 2. When submitting a WAIVER, the DESIGN PROFESSIONAL or licensed contractor, shall provide justification for design parameters that do not meet the design standards and construction

requirements listed in these Regulations. See Section 5-3 for WAIVER requirements.

2-1002 Spas

2-1002.1 The maximum water depth in SPAS shall be four (4) feet measured from the designed static water line unless designed for special use and purposes APPROVED by the HEALTH AUTHORITY.

(A) The water depth for exercise SPAS shall not exceed six feet six inches (6 ft. 6 in) measured from the designed static water line.

(B) The maximum submerged depth of any seat or sitting bench shall be 28 inches measured from the water line.

2-1002.2 A SPA shall have one or more suitable, slip-resistant handhold(s) around the perimeter and not over 12 inches above the water line. The handhold(s) may consist of bull-nosed coping, ledges or DECKS along the immediate top edge of the SPA; ladders, steps, or seat ledges; or railings.

2-1002.3 Where SPA depths are greater than 24 inches, interior steps or stairs shall be provided in accordance with Section 2-304.

(A) Each set of steps shall be provided with at least one handrail to serve all treads and risers.

(1) A point of egress equipped with a handrail must be provided for every 50 feet of perimeter or major portion thereof.

(B) Seats or benches may be provided as part of these steps.

(C) Approach steps on the exterior of a SPA wall extending above the DECK shall also be required unless the raised SPA wall is 19 inches or less in height above the DECK and it is used as a transfer tier or pivot-seated entry.

2-1002.4 A four (4) foot wide, continuous, unobstructed PERIMETER DECK shall be provided on two consecutive or adjacent sides of the SPA. A minimum of fifty percent (50%) of the SPA perimeter must remain unobstructed.

(A) SPAS located adjacent to other AQUATIC VENUES must meet the PERIMETER DECK requirements and provide an effective means to prevent cross contamination of water between the AQUATIC VENUES.

(B) Elevated SPAS may be located adjacent to another AQUATIC VENUE as long as there is an effective BARRIER between the SPA and the adjacent AQUATIC VENUE.

(1) If an effective BARRIER is not provided, a minimum distance of four (4) feet between the AQUATIC VENUE and SPA is required.

2-1002.5 Water temperatures shall not exceed 104°F.

2-1002.6 A means to drain the SPA shall be provided to allow frequent draining and cleaning.

2-1002.7 All plumbing associated with the jet system must be independent from the plumbing for the filtration system.

2-1002.8 Suction outlets associated with the jet system must be of an UNBLOCKABLE DRAIN COVER design or have a minimum of two outlets separated by not less than three (3) feet that meet the following requirements:

(A) The outlets may be located on separate planes;

(B) The outlets shall be connected to a single branch line piped to provide haudraulic balance between the outlets; and

(C) The branch lines shall not be valved so as to be capable of operating independently.

2-1002.9 An air induction system, when provided, shall prevent water back up that could cause electrical shock hazards. Air intake sources shall not permit the introduction of toxic gases or other contaminants.

2-1002.10 The agitation system shall be connected to a minute timer that does not exceed 15 minutes and shall be located out of reach of a BATHER in the SPA.

2-1002.11 All SPAS shall have a clearly labeled emergency shutoff or control switch for the purpose of stopping the motor(s) that provide power to the RECIRCULATION SYSTEM and hydrotherapy or agitation system. The emergency shutoff shall be installed and be readily accessible to BATHERS in accordance with the NEC.

2-1003 Waterslides and Landing Pools

2-1003.1 The following recognized design and construction standards for WATERSLIDES shall be adhered to:

(A) The design engineer shall address compliance with these standards and must provide documentation and/or certification that the WATERSLIDE design is in conformance with these standards:

(1) ASTM F2376-13 Standard Practice for Classification, Design, Manufacture, Construction, and Operation of Water Slide Systems; and

(2) ASTM F2469-09 Standard Practice for Manufacturer, Construction, Operation, and Maintenance of AQUATIC Play Equipment.

(B) Signs indicating riding instructions, warnings, and requirements in accordance with the manufacturer's recommendations shall be posted at the WATERSLIDE entry.

2-1003.2 FLUMES

(A) FLUME surfaces shall be inert, nontoxic, smooth, and easily cleaned.

(B) All FLUME valleys and dips shall have proper drainage, safety measures that insure a rider cannot fall from the FLUME, and a means of egress in the event the ride malfunctions or a rider stops on the ride.

2-1003.3 FLUME Exits

(A) The exit of any FLUME must be designed to ensure that BATHERS enter the LANDING POOL or SLIDE RUNOUT at a safe speed and angle of entry.

(B) If a WATERSLIDE has two or more FLUMES and there is a point of intersection between the centerlines of any two FLUMES, the distance between that point and the point of exit for each intersecting FLUME must not be less than the SLIDE manufacturer's recommendations and ASTM F2376.

2-1003.4 Exit into LANDING POOLS

(A) WATERSLIDES shall be designed to terminate at or below water level, except for DROP SLIDES unless otherwise permitted by the WATERSLIDE manufacturer and ASTM F2376.

(B) WATERSLIDES shall be perpendicular to the wall of the AQUATIC VENUE at the point of exit unless otherwise permitted by the WATERSLIDE manufacturer.

(C) WATERSLIDES shall be designed with an exit system which shall be in accordance with the WATERSLIDE manufacturer's recommendations and ASTM F2376 and provides for safe entry into the LANDING POOL or WATERSLIDE RUNOUT.

(D) The FLUME exits shall be in accordance with the WATERSLIDE manufacturer's recommendations and ASTM F2376.

(E) The distance between the point of exit and the side of the AQUATIC VENUE opposite the BATHERS as they exit, excluding any steps, shall not be less than the WATERSLIDE manufacturer's recommendations and in accordance with ASTM F2376.

2-1003.5 LANDING POOLS

(A) If steps are provided instead of exit ladders or RECESSED STEPS with grab rails, they shall be installed at the opposite end of the LANDING POOL from the FLUME exit and a handrail shall be provided in accordance with Sections 2-304 to 2-308.

(B) If the WATERSLIDE FLUME ends in an AQUATIC VENUE used for swimming, the landing area shall be divided from the rest of the AQUATIC VENUE by a float line, WING WALL, PENINSULA or other similar feature to prevent collisions with other BATHERS.

2-1003.6 A PERIMETER DECK shall be provided along the exit side of the LANDING POOL.

2-1003.7 A walkway, steps, stairway or ramp shall be provided between the LANDING POOL and the top of the FLUME.

2-1003.8 WATERSLIDE RUNOUTS, if used, shall have a planned means of egress, unless one of the walls of the RUNOUT is not more than 19 inches in height. WATERSLIDE RUNOUTS shall be designed in accordance with the SLIDE manufacturer's recommendations and ASTM F2376.

2-1003.9 DROP SLIDES

(A) There shall be a SLIDE landing area in accordance with the SLIDE manufacturer's recommendations and ASTM F2376.

(B) This area shall not infringe on the landing area for any other SLIDE, diving equipment, or any other minimum AQUATIC VENUE clearance requirements.

(C) Steps shall not infringe on this area.

(D) The minimum required water depth shall be a function of the vertical distance between the terminus of the SLIDE surface and the water surface of the LANDING POOL.

(E) The minimum required water depth shall be in accordance with the SLIDE manufacturer's recommendations and ASTM F2376.

2-1003.10 POOL SLIDES

(A) All SLIDES installed as an appurtenance to an AQUATIC VENUE shall be designed, constructed, and installed to provide a safe environment for all BATHERS utilizing the AQUATIC VENUE in accordance with applicable ASTM and CPSC standards.

(B) Components used to construct a POOL SLIDE shall be non-toxic and compatible with the environment contacted under normal use.

(C) Water depth at the SLIDE terminus shall be determined by the SLIDE manufacturer.

(D) Clear space shall be maintained to the POOL edge and other features per manufacturer requirements.

(1) The landing area of the SLIDE shall be protected through the use of a float line, WING WALL, PENINSULA or other similar impediment to prevent collisions with other BATHERS.

(2) Netting or other BARRIERS shall be provided to prevent BATHER access underneath POOL SLIDES where sufficient clearance is not provided.

(3) Such netting or other BARRIER shall be designed such that any underwater opening does not allow for the passage of a four (4) inch ball and no opening can create a finger entrapment.

2-1004 Wave Pools

2-1004.1 Access

(A) BATHERS must gain access to the WAVE POOL at the shallow or beach end with the exception of an allowable ADA designated entry point.
  (1) The sides of the WAVE POOL shall be protected from unauthorized entry into the WAVE POOL by the use of a fence or other comparable BARRIER.
  (2) Handrails associated with ADA accessible entries shall be designed in such a way that they do not present a potential for injury or entrapment with WAVE POOL BATHERS.

(B) A PERIMETER DECK shall not be required around 100 percent of the WAVE POOL perimeter. A PERIMETER DECK shall be provided where BATHERS gain access to the WAVE POOL at the shallow or beach end and in locations where access is required for LIFEGUARDS.

(C) WAVE POOLS shall be provided with handholds at the static water level or not more than six (6) inches above the static water level that shall be:
  (1) Continuous around the WAVE POOL'S perimeter except at zero depth beach entries, water depths less than 24 inches, or areas roped off, not allowing BATHER access;
  (2) Self-draining;
  (3) Installed so that the outer edge is flush with the WAVE POOL wall; and
  (4) Designed to ensure that body extremities will not become entangled during wave action.

(D) RECESSED STEPS and handrails shall be provided at one or more locations along the wall of the WAVE POOL. The RECESSED STEPS and handrails must extend down the wall so that they will be easily accessible during wave generation at the lowest water level. The distance between the handrail and the wall must not exceed six (6) inches.

(E) Ladders shall not be allowed along the walls of the WAVE POOL due to the entrapment potential.

(F) WAVE POOLS shall be fitted with a float line located to restrict access to the caisson wall. Safety rope and float lines typically required at shallow to DEEP WATER transitions shall not apply to WAVE POOLS.

2-1004.2 Safety

(A) Proper storage shall be provided for life jackets and all other equipment used in the WAVE POOL that will allow for thorough drying to prevent mold and other biological growth.

(B) A minimum of two (2) emergency shut-off switches to disable the wave action shall be provided, one on each side of the WAVE POOL. These switches shall be clearly labeled and readily accessible to LIFEGUARDS.

(C) A sign stating "NO DIVING" in contrasting letters not less than four (4) inches in height must be posted in a conspicuous place.

(D) Caisson BARRIERS shall be provided for all WAVE POOLS that prevent the passage of a ball two (2) inches in diameter.

2-1005 Therapy Pools

2-1005.1 Floor slope may exceed one (1) foot in 12 feet for water shallower than five (5) feet. Break points in floor slope shall be identified with a contrasting band consistent with Section 2-3018.4(A).

2-1005.2 Hydrotherapy or jet systems shall be independent of the recirculation, filtration, and heating systems.

2-1005.3 Special equipment may be allowed by the HEALTH AUTHORITY with proper justification.

2-1006 Lazy Rivers

2-1006.1 Handrails, steps, stairs and propulsion jets for LAZY RIVERS shall not protrude into the river.

2-1006.2 Means of access/egress shall be provided at 150 foot intervals around the LAZY RIVER.

(A) A handhold in compliance with Section 2-3013 shall be required on at least one side of the LAZY RIVER.

(B) A DECK shall be provided along the entire length of the LAZY RIVER.

(C) The DECK shall be allowed to alternate sides of the LAZY RIVER.

(D) Obstructions around the perimeter of the LAZY RIVER, such as bridges or landscaping, shall be allowed provided they do not impact lifeguarding sight lines or rescue operations.

(E) All bridges spanning a LAZY RIVER shall have a minimum clearance of both eight (8) feet from the bottom of the LAZY RIVER and four (4) feet above the entire water surface with any structure overhead.

2-1007 Interactive Water Play Venues

2-1007.1 INTERACTIVE WATER PLAY VENUES shall have a slip-resistant and easily cleanable surface. Any manufactured surfacing shall be deemed suitable by the manufacturer for aquatic and chlorinated environments.

2-1007.2 The INTERACTIVE WATER PLAY VENUE shall be properly sloped so that only water from the AQUATIC FEATURES flows back to the INTERACTIVE WATER PLAY VENUE collection tank.

(A) Areas adjacent to the INTERACTIVE WATER PLAY VENUE shall be sloped away from the collection drains.

(B) The slope of the INTERACTIVE WATER PLAY VENUE shall be sufficient to prevent standing water from collecting on the pad.

2-1007.3 The size, number and locations of the INTERACTIVE WATER PLAY VENUE drains shall be determined and specified so as to assure water does not accumulate on the INTERACTIVE WATER PLAY VENUES.

(A) Flow through the drains to the INTERACTIVE WATER PLAY VENUE collection tank shall be under gravity.

(B) Direct suction outlets from the INTERACTIVE WATER PLAY VENUE shall be prohibited.

2-1007.4 Openings in the grates covering the drains shall not exceed 1/2 inches wide. Gratings shall not be removable without the use of tools.

2-1007.5 The INTERACTIVE WATER PLAY VENUE collection tank shall be designed to provide ready access for cleaning and inspections, and

(A) The INTERACTIVE WATER PLAY VENUE collection tank shall be capable of complete draining.

(B) The access hatch or lid shall be locked or require a tool to open.

2-1007.6 DECK Area

(A) INTERACTIVE WATER PLAY VENUES shall be kept free of landscape debris by either:
- **(1)** Eight (8) feet of DECK area,
- **(2)** Raised curbs, or
- **(3)** Raised planters.

(B) The DECK shall be of a uniform, easily cleaned, impervious material.

(C) The DECK shall be protected from surface runoff.

2-1007.7 A BARRIER shall be provided to separate an INTERACTIVE WATER PLAY VENUE from another body of water within the same facility. ***Exception:*** The INTERACTIVE WATER PLAY VENUE is separated by a distance of at least 15 feet from other bodies of water.

2-1007.8 If an AQUATIC FACILITY only consists of an INTERACTIVE WATER PLAY VENUE, then the requirements for an ENCLOSURE shall not apply unless otherwise deemed necessary by the HEALTH AUTHORITY.

2-1007.9 Spray features shall be designed and installed to be seen clearly, so as not to be a hazard to BATHERS due to water velocity from the spray feature discharge, or other safety hazards.

2-1007.10 Maximum velocity at the orifice of the spray feature nozzle shall not exceed 20 feet per second.

2-1007.11 Depth markings and warning signs are not required for INTERACTIVE WATER PLAY VENUES.

2-1007.12 NEC swimming POOL requirements shall apply to INTERACTIVE WATER PLAY VENUES.

2-1008 Wading Pools and Child Amusement Lagoons

2-1008.1 A BARRIER shall be provided to separate a WADING POOL or CHILD AMUSEMENT LAGOON from other AQUATIC VENUES.

(A) The BARRIER shall not be required to completely surround the WADING POOL or CHILD AMUSEMENT LAGOON if the shortest distance of travel between the WADING POOL or CHILD AMUSEMENT LAGOON around the BARRIER to the other AQUATIC VENUE is a minimum of 15 feet.

(B) WADING POOLS and CHILD AMUSEMENT LAGOONS near other WADING POOLS or CHILD AMUSEMENT LAGOONS shall not be required to be separated by a BARRIER.

(C) Features and devices installed in a CHILD AMUSEMENT LAGOON shall be smooth, easily cleanable and of durable design intended for such use.

2-1008.2 Underwater lights shall not be installed in WADING POOLS or CHILD AMUSEMENT LAGOONS.

2-1009 Artificial Swimming Lagoons

2-1009.1 The DESIGN PROFESSIONAL shall consult with the HEALTH AUTHORITY before the preparation and submission of any engineering plans or specifications for an ARTIFICIAL SWIMMING LAGOON.

2-1009.2 An ARTIFICIAL SWIMMING LAGOON may deviate from other provisions of these Regulations through the submission of a WAIVER addressing all safety concerns generated by the deviation from regulatory requirements, if its design and construction are within the limits of sound engineering practice and present no health or safety hazards.

2-10010 Surf Pools

2-10010.1 A SURF POOL may deviate from other provisions of these Regulations through the submission of a WAIVER addressing all safety concerns

generated by the deviation from regulatory requirements, if its design and construction are within the limits of sound engineering practice and present no health or safety hazards.

2-10011 Isolation And Flotation Units

2-10011.1 The unit must be designed or ventilated to prevent any hazardous concentration of gases or vapors from disinfectants under all circumstances of operation.

2-10011.2 Each unit must be located in a separate room equipped with an individual SHOWER.

2-10012 Natural Bathing Places

2-10012.1 A PERMIT to operate a NATURAL BATHING PLACE must be obtained from the HEALTH AUTHORITY.

(A) Approval and operation of a NATURAL BATHING PLACE will be based upon the result of a sanitary survey of the site and the results of the weekly microbiological testing of the water of the bathing area in accordance with this Section.

(B) The flow of water supplying a bathing beach or the volume of water in a body of water on which a beach is located must be sufficient to provide at least 500 gallons of water per BATHER when the greatest number of BATHERS are in the water.

(C) Evidence of human-caused pollution, floating debris, sludge accumulation and similar gross pollutants will disqualify the site as an acceptable bathing area until such pollutants are completely and permanently eliminated.

(D) Water samples shall be submitted to a state-licensed laboratory each week. Such samples must meet the following criteria: *E. coli* at a geometric of 126 CFU per 100 mL and an STV (single test value) of 410 CFU per 100 mL measured using EPA Method 1603, or any other equivalent method that measures E. coli.

(E) There must be a minimum of 40 square feet of beach area per BATHER.

(F) The slope of the bottom of the beach area must be gradual and be such as to not create a safety hazard to the PATRON of the beach. The area floor must be free of physical hazards and obstructions.

(G) Failure to meet any of the criteria noted above (B)-(F) shall result in the immediate closure of the NATURAL BATHING PLACE.

2-10012.2 A NATURAL BATHING PLACE may require a WAIVER to address unique safety concerns inherent to the NATURAL BATHING PLACE.

2-10012.3 The perimeter of the designated swimming area must be marked with buoys in the water and signage at either end of the beach designating "No swimming beyond this point."

2-10012.4 HYGIENE FACILITIES must be constructed in accordance with the provisions of Section 2-8.

2-10012.5 There must be telephone connections and transportation facilities available for emergency use.

2-10013 Deluge Showers

2-10013.1 In addition to the general AQUATIC VENUE requirements stated in these Regulations, deluge showers shall comply with the additional provisions or reliefs of this section.

2-10013.2 Shall be constructed to achieve a 30 minute maximum TURNOVER.

2-10013.3 Signage must be posted in the immediate vicinity declaring that the SHOWER utilizes re-circulated water.

2-10014 Innovative Designs

An AQUATIC VENUE utilizing an innovative design may be APPROVED by the HEALTH AUTHORITY if its design and construction present no health or SAFETY hazard to the public. Applications and supporting documentation must be stamped by an engineer or architect licensed in Nevada. The HEALTH AUTHORITY will require written WAIVER(S) prior to approval.

SECTION 3 Facility Operation and Maintenance

Parts

3-1 Operating Permits

Subparts

The provisions of this Section apply to all AQUATIC FACILITIES covered by these Regulations regardless of when constructed, unless otherwise noted.

3-101 Owner Responsibilities

3-101.1 Prior to opening for use, the AQUATIC FACILITY OWNER shall apply to the HEALTH AUTHORITY for a PERMIT to operate each AQUATIC VENUE.

3-101.2 A separate PERMIT is required for each newly constructed or SUBSTANTIALLY ALTERED AQUATIC VENUE at an existing AQUATIC FACILITY.

3-101.3 Before an initial PERMIT to operate is issued, the following procedures shall be completed:

(A) The AQUATIC FACILITY OWNER has demonstrated the AQUATIC FACILITY, including all newly constructed or SUBSTANTIALLY ALTERED AQUATIC VENUES, is in compliance with the requirements of these Regulations;

(B) An initial inspection has been conducted; and

(C) The HEALTH AUTHORITY has APPROVED the AQUATIC FACILITY to be open to the public.

3-101.4 The PERMIT to operate shall:

(A) Be issued in the name of the OWNER;

(B) Be specific to a single AQUATIC VENUE; and

(C) Specify the period of time APPROVED by the HEALTH AUTHORITY.

3-101.5 The AQUATIC FACILITY OWNER shall renew all PERMITS to operate annually according to the schedule established by the HEALTH AUTHORITY.

3-101.6 The PERMIT to operate may be withheld, revoked, or denied by the HEALTH AUTHORITY for noncompliance of the AQUATIC FACILITY with the requirements of these Regulations and failure to pay required fees associated with the PERMIT.

3-101.7 The OWNER of an AQUATIC FACILITY is responsible for the facility being operated, maintained, and managed in accordance with the requirements of these Regulations.

3-102 Permits

3-102.1 The PERMIT to operate shall be posted at the AQUATIC FACILITY in a location conspicuous to the public or immediately available for review upon request.

3-102.2 Operation of an AQUATIC FACILITY without a PERMIT shall be prohibited.

3-102.3 The HEALTH AUTHORITY may order a newly constructed or SUBSTANTIALLY ALTERED AQUATIC VENUE without or outside of an APPROVED PERMIT to close until the AQUATIC FACILITY has obtained an APPROVED PERMIT.

3-2 Aquatic Facility Operation and Maintenance

Subparts

3-201 Closure and Reopening

3-202 Preventative Maintenance Plan

3-201 Closure and Reopening

3-201.1 If an AQUATIC VENUE is not open for use the following conditions shall be met to protect health and safety:

(A) Where the AQUATIC VENUE has a separate ENCLOSURE per Section 2-604:

(1) The water shall be recirculated and treated to meet the criteria of these Regulations;

(2) The water shall be drained; or

(3) An APPROVED safety cover that is listed and labeled to ASTM F1346-91 by an ANSI-accredited certification organization shall be installed provided no public health nuisances are present.

(B) Where the AQUATIC VENUE does not have a separate ENCLOSURE per Section 2-604 and other parts of the AQUATIC FACILITY are open for use:

(1) The water shall be recirculated and treated to meet the criteria of these Regulations and the AQUATIC VENUE shall be staffed to keep BATHERS out; or

(2) An APPROVED safety cover that is listed and labeled to ASTM F1346-91 by an ANSI-accredited certification organization shall be installed provided no public health nuisances are present or created.

(C) Where the AQUATIC VENUE does not have a separate ENCLOSURE per Section 2-604, and the AQUATIC FACILITY is closed for use:

(1) The water shall be recirculated and treated to meet the criteria of these Regulations;

(2) The water shall be drained; or

(3) An APPROVED safety cover that is, listed and labeled to ASTM F1346-91 by an ANSI-accredited certification organization shall be installed provided no public health nuisances are present.

3-201.2 An OWNER or operator of a closed AQUATIC VENUE shall verify that the AQUATIC VENUE meets all applicable criteria of these Regulations before reopening the AQUATIC VENUE.

3-202 Preventive Maintenance Plan

3-202.1 Written Plan

(A) A written comprehensive preventive maintenance plan for each AQUATIC VENUE shall be available at the AQUATIC FACILITY.

(B) The AQUATIC FACILITY preventive maintenance plan shall include details and frequency of the OWNER/operator's planned routine facility inspection, maintenance, and replacement of recirculation and water treatment components.

3-202.2 Facility Documentation

(A) A copy of the APPROVED plans and specifications for each AQUATIC VENUE constructed after the adoption of these Regulations shall be available at the AQUATIC FACILITY.

(B) A comprehensive inventory of all mechanical equipment associated with each AQUATIC VENUE shall be available at the AQUATIC FACILITY.

(C) This inventory shall include:

(1) Equipment name and model number,

(2) Manufacturer and contact information,

(3) Local vendor/supplier and technical representative, if applicable, and

(4) Replacement or service dates and details.

(D) Operation manuals for all mechanical equipment associated with each AQUATIC VENUE shall be available at the AQUATIC FACILITY. If no manufacturer's operation manual is available, then the AQUATIC FACILITY should create a written document that outlines standard operating procedures for maintaining and operating the piece of equipment.

3-3 Aquatic Venue Structure

Subparts

3-301 Depth Markers

3-302 Aquatic Venue Shell and Interior Surface Maintenance

3-301 Depth Markers

3-301.1 Depth markers shall be provided in locations in accordance with Section 2-3018 and maintained.

3-301.2 "No Diving" markers shall be provided in accordance with Section 2-3018 and maintained.

3-302 Aquatic Venue Shell and Interior Surface Maintenance

3-302.1 Cracks shall be repaired when they may increase the potential for:

(A) Leakage,

(B) Trips or falls,

(C) Lacerations, or

(D) Impact the ability to properly clean and maintain the AQUATIC VENUE area.

3-302.2 Surface cracks under 1/8 inch wide shall be documented and monitored for any movement or change including opening, closing, and/or lengthening.

3-302.3 Any sharp edges shall be removed.

3-302.4 When cracks or chips in the finish expose BATHERS to the AQUATIC VENUE shell, the AQUATIC VENUE must be repaired or resurfaced prior to reopening for use.

3-4	Indoor/Outdoor Environment		
Subparts			
3-401	Lighting	3-405	Plumbing
3-402	Indoor Aquatic Facility Ventilation	3-406	Solid Waste
3-403	Electrical	3-407	Decks
3-404	Emergency Exit	3-408	Aquatic Facility Maintenance

3-401 Lighting

3-401.1 Lighting Maintained

(A) Lighting systems, including emergency lighting, shall be maintained in all PATRON and maintenance areas, to ensure the required lighting levels are met as specified in Section 2-401.

(B) The AQUATIC FACILITY shall not be open if light levels are such that the main drain is not visible as specified in Section 3-506.

(C) Underwater lights, where provided, shall be operational and maintained as designed. Branch circuits that supply underwater lights operating at more than the Low Voltage Contact Limit as defined in NEC 680.2 must be GFCI protected.

(D) Operation of an unprotected underwater light circuit shall be prohibited.

(E) Damage to underwater lighting of any kind shall result in the disabling of all applicable electrical connections utilizing a lock out tag out procedure or the ENCLOSURE shall be closed until repairs have been completed. If a significant portion of the AQUATIC FACILITY's underwater lighting is affected, the AQUATIC FACILITY shall close to night swimming until all repairs have been completed.

3-401.2 Glare

(A) The AQUATIC FACILITY OWNER shall ensure that glare conditions are assessed to ensure that the AQUATIC VENUE bottom and objects in the AQUATIC VENUE are clearly visible throughout operating hours.

(B) If the AQUATIC VENUE requires LIFEGUARDS, the AQUATIC FACILITY OWNER shall ensure that glare conditions are assessed from each LIFEGUARD STATION to ensure that the AQUATIC VENUE bottom and objects in the AQUATIC VENUE are clearly visible throughout operating hours.

(C) Windows and lighting equipment shall be adjusted, if possible, to minimize glare and excessive reflection on the water surface.

3-401.3 Night swimming shall be prohibited unless required light levels in accordance with Section 2-401 are provided. Night swimming shall be considered one half hour before sunset to one half hour after sunrise.

3-401.4 Emergency lighting shall be tested and maintained according to manufacturer's recommendations.

3-402 Indoor Aquatic Facility Ventilation

3-402.1 AIR HANDLING SYSTEMS shall be maintained and operated by the OWNER/operator to protect the health and safety of the AQUATIC FACILITY'S PATRONS.

3-402.2 AIR HANDLING SYSTEMS shall be maintained and operated to comply with all requirements of the original system design, construction, and installation.

3-402.3 Indoor Facility Areas

(A) The AIR HANDLING SYSTEM operation and maintenance requirements shall apply to an INDOOR AQUATIC FACILITY including:
(1) The AQUATIC VENUES, and
(2) The surrounding BATHER and SPECTATOR/STADIUM SEATING area;
(B) But does not include:
(1) Mechanical rooms,
(2) HYGIENE FACILITIES and locker rooms, and
(3) Any associated rooms which have a direct opening to the AQUATIC FACILITY.

3-402.4 The ventilation system must be capable of preventing the accumulation of condensation, CHLORAMINES, and microbial growth.

3-403 Electrical

3-403.1 Electrical Repairs

(A) Repairs or alterations to electrical equipment and associated equipment shall be in accordance with applicable law.
(B) All defects in the electrical system shall be immediately repaired by a qualified PERSON.
(C) Electrical wiring, whether permanent or temporary, shall comply with applicable law.

3-404 Emergency Exit

Emergency exit routes shall be established for both indoor and outdoor facilities and be maintained so that they are well lit, unobstructed, and accessible at all times.

3-405 Plumbing

3-405.1 Water Supply

(A) All plumbing shall be maintained in good repair with no leaks or discharge.
(B) Potable water shall be available at all times to PATRONS.
(C) Water introduced into the AQUATIC VENUE, either directly or to the RECIRCULATION SYSTEM, shall be supplied with appropriate BACKFLOW prevention.

3-405.2 Drinking Fountains

(A) Drinking fountains shall be maintained clean and in good repair.
(B) Drinking fountains shall have sufficient water pressure to allow correct adjustment to accommodate water dispensing to prevent PATRON facial contact with common surfaces and prevent water from landing outside the catch basin.

3-405.3 Waste Water

(A) AQUATIC VENUE waste water, including backwash water and cartridge cleaning water, shall be disposed of in accordance with applicable law.
(B) Waste water and backwash water shall not be returned to an AQUATIC VENUE or the AQUATIC FACILITY'S water treatment system.
(C) Filter backwash lines, DECK drains, and other drain lines connected to the AQUATIC FACILITY or the AQUATIC FACILITY'S RECIRCULATION SYSTEM shall be discharged through an APPROVED air gap.
(D) No standing water shall result from any discharge, nor shall it create a nuisance, offensive odors, stagnant wet areas, or an environment for the breeding of insects.

3-405.4 Removal of water from the AQUATIC VENUE and replacement with make-up water shall be performed as needed to maintain water quality.

3-406 Solid Waste

3-406.1 Outside trash, recycling receptacles and storage areas shall be maintained in good repair and clean condition.

3-406.2 Solid waste and recycled materials shall be removed at a frequency to prevent the attraction of vermin or cause odors and be disposed of in compliance with applicable law.

3-407 Decks

3-407.1 Food Preparation and Consumption

(A) Food preparation and cooking shall only be allowed in designated areas as specified in these Regulations.

(B) BATHERS shall not eat while at an AQUATIC VENUE except in designated areas located at least 4 feet from the water's edge. Beverages in a durable covered container may be consumed while in or partially in the AQUATIC VENUE.

(C) Swim-up bars or gaming areas, when utilized, shall provide facilities for BATHERS to place food and drinks on a surface which can be SANITIZED and use spill resistant containers to prevent the introduction of food or drink into the AQUATIC VENUE water.

3-407.2 Glass

(A) Glass food and beverage containers shall be prohibited in PATRON areas of AQUATIC FACILITIES.

(B) Glass furniture shall be prohibited in an AQUATIC FACILITY.

3-407.3 DECK Maintenance

(A) The PERIMETER DECK shall be maintained free from obstructions, including PATRON seating, to preserve space required for lifesaving and rescue.

(B) Diaper changing shall be prohibited on the DECK.

(C) DECK areas shall be cleaned daily and kept free of debris, vermin, and vermin harborage.

(D) DECK surfaces shall be maintained to their original design slope and integrity.

(E) Cracks shall be repaired when they increase the potential for:

(1) Trips or falls,

(2) Lacerations, and/or

(3) Impact the ability to properly clean and maintain the DECK area.

(F) DECK areas shall be free from standing water.

(G) DECK drains shall be cleaned and maintained to prevent blockage and the ponding of water.

(H) Absorbent materials used in wet areas must be able to be removed for daily cleaning and DISINFECTION.

(I) Fixed equipment, loose equipment, and DECK furniture shall not interfere with emergency exit procedures or intrude upon the AQUATIC VENUE DESIGNATED WALKWAY.

3-408 Aquatic Facility Maintenance

All appurtenances, features, signage, safety and other equipment, and systems required by these Regulations shall be provided and maintained.

3-408.1 Diving Boards and Platforms

(A) The finish and profile of surfaces of diving boards and platforms shall be maintained to prevent slips, trips, and falls.

(B) Diving boards shall be inspected daily for cracks and loose bolts with cracked boards removed and loose bolts tightened immediately.

3-408.2 Steps and Guardrails

(A) Steps and guardrails shall be secured so as not to move during use.

(B) The profile and surface of steps shall be maintained to prevent slips and falls.

3-408.3 The profile and surface of starting platform steps shall be in good repair to prevent slips, trips, falls, and pinch hazards.

3-408.4 WATERSLIDES

(A) WATERSLIDES shall be maintained and operated to the manufacturer's or designer's specifications.

(B) Slime and biofilm layers shall be removed on all accessible WATERSLIDE surfaces.

(C) WATERSLIDE water flow rates shall be checked to be within the designer's or manufacturer's specifications prior to opening to the public.

(D) Where WATERSLIDE plumbing lines are susceptible to holding stagnant water, WATERSLIDE pumps shall be started with sufficient time prior to opening to flush such plumbing lines with treated water.

(E) The water shall be tested to verify the disinfectant in the water is within the parameters specified in Section 3-503.1.

3-408.5 ENCLOSURES and BARRIERS

(A) Required ENCLOSURES to include fencing and gates shall be maintained at all times.

(B) Gates, locks, and associated alarms, if required, shall be tested daily prior to opening.

3-408.6 AQUATIC FACILITY Cleaning

(A) The AQUATIC VENUE shall be kept clean of debris, organic material, and slime/biofilm in accessible areas of the water and on surfaces.

(B) Vacuuming shall only be done when the AQUATIC VENUE is closed and port openings shall be covered with an APPROVED device cover when not in use.

3-5 Recirculation and Water Treatment

Subparts

3-501 Recirculation Systems and Equipment

3-501.1 General

(A) All components of the filtration and RECIRCULATION SYSTEM shall be kept in continuous operation 24 hours per day.

(1) For AQUATIC FACILITIES that intend to reduce the recirculation flow rate below the minimum required design values when the AQUATIC VENUE is closed, the system shall be operated according to the provisions outlined in Section 2-502.9(H).

(B) Flow through the various components of a RECIRCULATION SYSTEM shall be balanced to maximize the water clarity and safety of a AQUATIC VENUE.

(C) For PERIMETER GUTTER SYSTEM or SKIMMER AQUATIC VENUES with main drains, the recommended recirculation flow should be as follows during normal operation:

(1) At least 80 percent of the flow through the perimeter overflow system, and

(2) No greater than 20 percent through the main drain.

3-501.2 Each individual AQUATIC VENUE in a combined treatment system shall meet the required TURNOVER times specified in **Table 2-502.9** and achieve all water quality criteria.

3-501.3 INLETS shall be checked at least weekly for rate and direction of flow and adjusted as necessary to produce uniform circulation of water and to facilitate the maintenance of a uniform disinfectant residual throughout the AQUATIC VENUE.

3-501.4 Surface Skimming Devices

(A) The PERIMETER GUTTER SYSTEM shall be kept clean and free of debris that may restrict flow. Removable grates must be in place during operation to prevent entrapment.

(B) The automatic fill system, when installed, shall maintain the water level at an elevation such that the gutters overflow continuously around the perimeter of the AQUATIC VENUE.

(C) The water levels shall be maintained near the middle of the SKIMMER openings.

(D) The flow through each SKIMMER shall be adjusted to maintain skimming action that will remove all floating matter from the surface of the water.

(E) The strainer baskets for SKIMMERS shall be maintained in good repair, not broken or missing and cleaned as necessary to maintain proper skimming. Damaged strainer baskets shall be replaced.

(F) Weirs must remain in place and in working condition at all times. Broken or missing SKIMMER weirs shall be replaced.

(G) A flotation test may be required by the HEALTH AUTHORITY to evaluate the effectiveness of surface skimming.

3-501.5 Submerged Drains/Suction Outlet Covers or Gratings

(A) Loose, broken, or missing suction outlet covers and sumps shall be secured or replaced immediately and installed in accordance with the manufacturer's requirements.

(1) AQUATIC VENUES shall be closed until the required repairs can be completed.

(2) AQUATIC FACILITIES shall follow procedures for closing and re-opening as applicable in Section 3-201.

(B) The manufacturer's documentation on all outlet covers and sumps shall be made part of the permanent records of the AQUATIC FACILITY.

3-501.6 Strainers shall be in place and cleaned as required to maintain pump performance.

3-501.7 Flow meters in accordance with Section 2-502.8 shall be provided and maintained in proper working order.

3-501.8 Flow Rates / TURNOVER

(A) AQUATIC VENUES constructed or SUBSTANTIALLY ALTERED after the adoption of these Regulations shall be operated at the designed flow

rate to provide the required TURNOVER 24-hours per day when open for use except as allowed in Section 2-502.9.

(B) AQUATIC VENUE RECIRCULATION SYSTEMS constructed before the adoption of these Regulations shall be operated 24 hours a day in accordance with Section 3-501.1(A).

3-502 Filtration

Filters and filter media shall be listed and labeled to NSF/ANSI 50 by an ANSI-accredited certification organization. Filters shall be operated, backwashed, cleaned and maintained according to the manufacturer's instructions.

3-503 Disinfection and pH Control

3-503.1 Primary Disinfectants

Only the primary disinfectants outlined in this Section shall be acceptable for use in AQUATIC VENUES.

(A) CHLORINE (Hypochlorites)

(1) Only CHLORINE products that are EPA-REGISTERED for use as sanitizers or disinfectants in AQUATIC VENUES or SPAS in the United States are permitted.

(2) Minimum FAC concentrations shall be maintained at all times in all areas as follows:

(a) AQUATIC VENUES not using CYA shall maintain a minimum FAC concentration of 1.0 PPM.

(b) AQUATIC VENUES using CYA shall maintain a minimum FAC concentration of 2.0 PPM.

(c) SPAS shall maintain a minimum FAC concentration of 3.0 PPM.

(3) Recirculated AQUATIC FEATURE water lines susceptible to holding stagnant water shall maintain disinfectant throughout the lines as per Section 3-503.1(A)-(B).

(4) Maximum FAC concentrations shall not exceed 10.0 PPM at any time the AQUATIC VENUE is open to BATHERS.

(B) Bromine

(1) Only bromine products that are EPA-REGISTERED for use as sanitizers or disinfectants in AQUATIC VENUES or SPAS in the United States shall be permitted.

(2) Minimum bromine concentrations shall be maintained at all times in all areas as follows:

(a) All AQUATIC VENUES: 3.0 PPM, and

(b) SPAS: 3.0 PPM.

(3) Maximum bromine concentrations shall not exceed 8.0 PPM at any time the AQUATIC VENUE is open to BATHERS.

(C) Stabilizers

(a)

(2) The CYA level at all AQUATIC VENUES shall remain at or below 50 PPM not to exceed 80 PPM.

(D) Compressed CHLORINE Gas

As per Section 2-504.2(K), use of compressed CHLORINE gas shall be prohibited for new construction and after SUBSTANTIAL ALTERATION to existing AQUATIC FACILITIES.

(1) Facilities using compressed CHLORINE gas shall provide safety precautions per the following Sub-Sections.
  (a) The chlorinators and any cylinders containing CHLORINE gas used therewith shall be housed in an ENCLOSURE separated from other EQUIPMENT ROOMS, including the AQUATIC VENUE, corridors, dressing rooms and other space with a door so installed as to prevent gas leakage and equipped with an inspection window.
  (b) The enclosure shall be equipped with an audible alarm and leakage detection kit.
  (c) A gas mask designed for use in a CHLORINE atmosphere must be located outside of the ENCLOSURE in a closed, unlocked cabinet along with a record book for use and a replacement canister.
  (d) CHLORINE cylinders shall be secured from falling.
  (e) Cylinders in use shall be secured on a suitable platform scale and equipped with a wrench or valve handle that can be used to shut off the gas in the event of an emergency.
  (f) A separate vent opening near the floor to the building exterior shall be provided.
  (g) An electric motor-driven fan capable of two air changes per hour, shall take suction from near the floor level of the ENCLOSURE and discharge at a suitable point to the exterior above the ground level.
  (h) The fan switch shall be able to be operated from outside of the ENCLOSURE.
  (i) Any person who operates such chlorinating equipment shall be trained in its use.
  (j) AQUATIC FACILITIES shall stop the use of CHLORINE gas if specific safety equipment and training requirements, along with local code considerations, cannot be met.

(E) Salt Electrolytic CHLORINE Generators, Brine Electrolytic CHLORINE or Bromine Generators
  (1) Only POOL grade salt shall be used.
  (2) The salt generation generator must maintain CHLORINE and bromine levels within required concentrations as specified in Section 3-503.1(A). The saline content of the AQUATIC VENUE water shall be maintained in the required range specified by the manufacturer.
  (3) Cleaning of electrolytic plates shall be performed as recommended by the manufacturer.
  (4) Corrosion protection systems shall be maintained in the AQUATIC VENUE basin.

(F) A facility unable to maintain water with the required disinfectant residual will be required to install equipment for the automated feeding of chemicals.

3-503.2 Secondary Disinfection Systems

(A) UV Light
  (1) UV systems shall only operate while the RECIRCULATION SYSTEM is operating.

(2) UV systems shall be operated and maintained not to exceed the maximum validated flow rate and meet or exceed the minimum validated output intensity needed to achieve the required dose for a 3-log inactivation.

(3) UV sensors shall be calibrated at a frequency in accordance with the manufacturer's recommendations.

(4) Records of calibration shall be maintained by the AQUATIC FACILITY.

(B) Ozone

(1) Ozone systems shall be operated and maintained according to the manufacturer's instructions to maintain the required design performance.

(2) Residual ozone concentration in the AQUATIC VENUE water shall remain below 0.1 PPM.

(3) A printed standard operating manual shall be provided containing information on the operation and maintenance of the ozone generating equipment, including the responsibilities of workers in an emergency.

(4) All employees shall be properly trained in the operation and maintenance of the equipment.

(C) Copper and Silver Ions

(1) Only those systems that are EPA-REGISTERED for use as sanitizers or disinfectants in AQUATIC VENUES or SPAS in the United States are permitted.

(2) Copper and silver concentrations shall not exceed 1.3 PPM for copper and 0.10 PPM for silver for use as disinfectants in AQUATIC VENUES in the United States.

(3) FAC or bromine levels shall be maintained in accordance with Section 3-503.1.

3-503.3 Other Sanitizers, Disinfectants, or Chemicals

(A) Other sanitizers, disinfectants, or chemicals used must:

(1) Be U.S. EPA-REGISTERED under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA),

(2) Not create a hazardous condition or compromise disinfectant efficacy when used with required bromine or CHLORINE concentrations, and

(3) Not interfere with water quality measures meeting all criteria set forth in these Regulations.

(B) CHLORINE Dioxide

(1) CHLORINE dioxide added through the recirculation system shall only be used for remediation for water quality issues when the AQUATIC VENUE is closed and BATHERS are not present.

(2) Safety training and safety precautions related to the use of CHLORINE dioxide shall be in place.

(C) Clarifiers, flocculants, and defoamers shall be used per the manufacturer's instructions.

3-503.4 PH

(A) The PH of the water shall be maintained between 7.2 and 7.8.

(B) APPROVED substances for PH adjustment shall include but not be limited to muriatic (hydrochloric) acid, sodium bisulfate, carbon dioxide, sulfuric acid, sodium bicarbonate, and soda ash.

(C) A facility unable to maintain water at the required pH, will be required to install equipment for the automated feeding of chemicals.

3-503.5 Feed Equipment

(A) Any disinfectant and PH control chemicals delivered through an automatic chemical feed system shall meet the following requirements:

(1) All chemical feed system components must be dedicated to a single chemical and clearly labeled to prevent the introduction of incompatible chemicals.

(2) Chemical feed system components shall be installed and interlocked so it cannot operate when the RECIRCULATION SYSTEM is in low or no flow circumstances as per Section 2-504.2(B).

(3) Chemical feed system components shall incorporate failure-proof features so the chemicals cannot feed directly into the AQUATIC VENUE, the venue piping system not associated with the RECIRCULATION SYSTEM, source water supply system, or the area within proximity of the AQUATIC VENUE DECK under any type of failure, low flow, or interruption of operation of the equipment to prevent BATHER exposure to high concentrations of AQUATIC VENUE treatment chemicals.

(4) All chemical feed equipment shall be maintained in good working condition.

(B) Chemical feeders shall be installed such that they are not over a different chemical, stored chemicals, other feeders, or electrical equipment.

(C) Chemicals shall be kept dry to avoid clumping and potential feeder plugging for mechanical gate or rotating screw feeders. The feeder mechanism shall be cleaned and lubricated to maintain a reliable feed system.

(D) Adequate pressure shall be maintained at the venturi INLET to create the vacuum needed to draw the chemical into the RECIRCULATION SYSTEM.

(E) Erosion feeders shall only have chemicals added that are APPROVED by the manufacturer.

(1) A feeder shall only be opened after the internal pressure is relieved by a bleed valve.

(2) Erosion feeders shall be maintained according to the manufacturer's instructions.

(F) Tubing and connections shall be checked on a daily basis for leaks.

(1) All chemical tubing that runs across walkways in non-PATRON areas shall be routed in PVC piping to support the tubing and to prevent leaks.

(2) The double containment PVC pipe shall be of sufficient size to allow for easy replacement of tubing.

(3) Any necessary turns in the piping shall be designed so as to prevent kinking of the tubing.

(G) The Chlorine Institute requirements for safe storage and use of CHLORINE gas shall be followed.

(H) Carbon dioxide feed shall be permitted to reduce PH and control total alkalinity.

(1) Carbon dioxide feed shall be controlled using a gas regulator.

(2) CO_2/O_2 monitor and alarm shall be maintained in working condition.

(3) Carbon dioxide is heavier than air, so forced ventilation shall be maintained in the storage room.

3-503.6 Testing for Water Circulation and Quality

(A) WATER QUALITY TESTING DEVICES (WQTDs) for the measurement of disinfectant residual, PH, alkalinity, CYA (if used), and temperature, at a minimum, shall be available on site.

(B) WQTDs utilizing reagents shall be checked for expiration at every use and the date recorded.

(C) WQTDs shall be stored in accordance with the manufacturer's instructions.

(D) Chemical testing reagents shall be maintained at proper manufacturer specified temperatures.

(E) WQTDs that require calibration shall be calibrated in accordance with the manufacturer's instructions and the date of calibration recorded.

(F) WQTDs unable to measure FAC are prohibited.

3-503.7 Automated Controllers and Equipment Monitoring

(A) When present an AUTOMATED CONTROLLER capable of measuring the disinfectant residual (FAC or bromine) or surrogate such as ORP shall be used to maintain the disinfectant residual in AQUATIC VENUES as outlined in Section 2-504.2(V).

(B) The sample line for all probes shall be upstream from all primary, SECONDARY, AND SUPPLEMENTAL DISINFECTION injection ports or devices.

(C) AUTOMATED CONTROLLERS shall be monitored at the start of the operating day to ensure proper functioning.

(D) MONITORING shall include activities recommended by manufacturer, including but not limited to alerts and leaks.

(E) AUTOMATED CONTROLLERS shall be calibrated per the manufacturer's directions.

(F) When an ozone system is utilized as a SECONDARY DISINFECTION SYSTEM, the system shall be MONITORED continuously for the following: ORP, the control system indicating O_3 being created, and operational indicators indicating the system is in range. The MONITORING data must be recorded every four (4) hours.

(1) At the time the ozone generating equipment is installed, again after 24 hours of operation, and annually thereafter, the air space within six (6) inches of the AQUATIC VENUE water shall be tested to determine compliance of less than 0.1 PPM gaseous ozone.

(2) Results of the test shall be maintained on site for review by the HEALTH AUTHORITY.

(G) When a UV system is utilized for SECONDARY DISINFECTION, the system shall be monitored continuously for the following and the data recorded as indicated: flow rate every four (4) hours, intensity every four (4) hours, water temperature daily, set point for intensity daily, and UV lamp on/off cycles recorded weekly with the total cycles/week. In addition the following must be MONITORED and recorded as indicated: iron, calcium hardness – weekly, UVT analyzer calibration – weekly, calibration intensity MONITORED annually and recorded at the

time of calibration, and the calibration of the flow meter per the manufacturer's requirements and recorded the time of calibration.

(H) The automated UV shut-down alarm required in Section 2-504.3(D)(7) shall be tested weekly and maintained as needed.

3-504 Water Sample Collection and Testing

3-504.1 Routine Sample Collection

When routine samples are collected from in-line sample ports, the QUALIFIED OPERATOR shall also ensure water samples are acquired from the bulk water of the AQUATIC VENUE at least once per day

(A) Water quality data from these AQUATIC VENUE samples shall be compared to data obtained from in-line port samples to assess potential water quality variability in the AQUATIC VENUE.

3-504.2 AQUATIC VENUE Water Chemical Balance

(A) Total alkalinity shall be maintained in the range of 60 to 180 PPM.

(B) The OWNER shall ensure the AQUATIC FACILITY takes action to reduce the level of CHLORAMINES in the water when levels exceed 1.0 PPM. Such actions may include but are not limited to:

(1) SUPERCHLORINATION;

(2) BREAKPOINT CHLORINATION;

(3) Water exchange; or

(4) PATRON adherence to appropriate BATHER hygiene practices.

(C) Calcium hardness should not exceed 1000 PPM.

(D) Algaecides may be used in an AQUATIC VENUE provided:

(1) The product is labeled as an algaecide for AQUATIC VENUE or SPA use;

(2) The product is used in strict compliance with label instructions; and,

(3) The product is registered with the US EPA and applicable state agency.

3-504.3 Source water shall be maintained as outlined in Section 2-901.

3-504.4 AQUATIC VENUE water shall be chemically balanced.

3-504.5 Water Temperature

(A) Water temperatures shall be considered and planned for based on risk, safety, priority facility usage, and age of participants, while managing water quality concerns.

(B) The maximum temperature for any AQUATIC VENUE is 104°F.

3-504.6 Facilities not having dependable DISINFECTION and filtration systems or failing to maintain such systems in accordance with these Regulations shall provide weekly bacteriological testing results from a State certified laboratory of water samples taken from each AQUATIC VENUE. Not more than 15 percent of the samples for any AQUATIC VENUE must either:

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

(B) Show a positive test (confirmed test) for total 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.

3-505 Water Quality Chemical Testing Frequency

3-505.1 FAC or bromine, and PH shall be tested at all AQUATIC VENUES prior to opening each day or at least once every 24 hours at evenly spaced intervals when the AQUATIC VENUE remains open 24 hours a day.

3-505.2 For all AQUATIC VENUES not associated with residential living units, the FAC (or bromine) and PH shall be tested prior to opening and every four (4) hours while accessible to BATHERS.

3-505.3 In-line ORP readings, if such systems are installed, shall be recorded at the same time the FAC (or bromine) and PH tests are performed.

3-505.4 Total Alkalinity (TA) and combined AVAILABLE CHLORINE shall be tested weekly at all AQUATIC VENUES.

3-505.5 CYA shall be tested monthly at all AQUATIC VENUES utilizing CYA.

(A) CYA shall be tested 24 hours after the addition of CYA to the AQUATIC VENUE.

(B) If AQUATIC VENUES utilize stabilized CHLORINE as its primary disinfectant, the operator shall test CYA every week.

3-505.6 For heated AQUATIC VENUES, water temperature shall be recorded at the same time the FAC (or bromine) and PH tests are performed.

3-505.7 If in-line electrolytic chlorinators are used, salt levels shall be tested at least weekly or per manufacturer's instructions.

3-505.8 Copper and silver shall be tested daily at all AQUATIC VENUES utilizing copper/silver systems as a SUPPLEMENTAL DISINFECTION SYSTEM.

3-506 Water Clarity

3-506.1 The water in an AQUATIC VENUE shall be sufficiently clear such that the main suction outlet pattern is visible while the water is static at all times the AQUATIC VENUE is open or available for use.

3-506.2 This reference point shall be visible at all times at any point on the DECK up to 30 feet away in a direct line of sight from the main drain. For SPAS, this test shall be performed when the water is in a non-turbulent state and bubbles have been allowed to dissipate.

3-507 Water Supply and Disposal

All provisions for water supply, fill spout, cross-connection control, sanitary waste and AQUATIC VENUE waste water must meet all criteria outlined in Section 2-9 with the exception of Section 2-905.3 and providing a sump pit for AQUATIC VENUE waste water on AQUATIC FACILITIES constructed prior to the adoption of these Regulations..

3-507.1 BACKFLOW prevention devices shall be in good working order and shall be tested as required by the HEALTH AUTHORITY.

3-6 Decks and Equipment

Subparts

3-601 Spectator Areas
3-602 Starting Blocks
3-603 Lifeguard and Safety Related Equipment
3-604 Enclosures

3-601 Spectator Areas

3-601.1 Materials and Slip Resistance

(A) Surfaces shall be clean and in good repair.

(B) The finish and profile of DECK surfaces shall be maintained to prevent slips and falls.

(C) Tripping hazards shall be avoided. If tripping hazards are present, they shall be repaired or promptly barricaded to protect PATRONS and employees.

3-601.2 The PERIMETER DECK shall be maintained clear of obstructions for at least a four (4) foot width around the entire AQUATIC VENUE unless otherwise allowed by these Regulations.

3-602 Starting Blocks

3-602.1 Starting platforms shall only be used for competitive swimming and training.

3-602.2 Starting platforms shall only be used under the direct supervision of a coach or instructor.

3-602.3 Starting platforms shall be removed, if possible, or prohibited from use during all recreational or non-competitive swimming activity by covering platforms with a manufacturer-supplied platform cover or with another means or device that is readily visible and clearly prohibits use.

3-603 Lifeguard and Safety Related Equipment

3-603.1 AQUATIC FACILITIES shall not be open to PATRONS unless the equipment listed under this Section is present and in a safe and working condition.

3-603.2 Safety Equipment Required at All AQUATIC FACILITIES

(A) The AQUATIC FACILITY shall have equipment for staff to communicate in case of emergency.

(1) The AQUATIC FACILITY or each AQUATIC VENUE, as necessary, shall have a functional telephone or other communication system or device that is hard wired and capable of directly dialing 911 or function as the emergency notification system.

(2) The telephone or communication system or device shall be conspicuously provided and accessible to AQUATIC VENUE PATRONS such that it can be reached immediately.

(3) Alternate functional systems, devices, or communication processes are allowed with HEALTH AUTHORITY approval in situations when a hardwired telephone is not logistically sound, and an alternate means of communication is available.

3-603.3 LIFEGUARD STATIONS shall have an unobstructed view of the entire bottom of the AQUATIC VENUE.

3-603.4 LIFEGUARD stands shall provide enough height to elevate the LIFEGUARD to an eye level above the heads of the BATHERS; and provide safe access and egress for the LIFEGUARD.

3-603.5 LIFEGUARD Chair and Stand Design

(A) The chairs/stands must be designed:

(1) With no sharp edges or protrusions; and

(2) With sturdy, durable, and UV resistant material.

(B) When a chair or stand is provided, it shall be equipped with overhead protection from or in a location without direct sun exposure or glare to allow for optimal BATHER surveillance.

3-603.6 First Aid Supplies

(A) The AQUATIC FACILITY with onsite staff shall have designated locations for emergency and first aid equipment. An adequate supply of first aid supplies shall be continuously stocked.

(B) Signage shall be provided at the AQUATIC FACILITY or each AQUATIC VENUE, as necessary, which clearly identifies the following:

(1) First aid location(s);

(2) Emergency telephone(s) or APPROVED communication system or device;

(3) A permanent sign providing emergency dialing directions and the AQUATIC FACILITY address shall be posted and maintained at the emergency telephone, system or device;

(4) A permanent sign shall be conspicuously posted and maintained displaying contact information for emergency personnel and AQUATIC FACILITY management; and

(5) A sign shall be posted stating the following:

(a) The operating hours of the AQUATIC FACILITY, and

(b) Unauthorized use of the AQUATIC FACILITY outside of these hours is prohibited.

3-603.7 Safety Equipment Required at Facilities with Lifeguards

(A) At least one spinal injury board constructed of material easily SANITIZED or disinfected shall be provided. The board shall be equipped with a head immobilizer and sufficient straps to immobilize a person to the spinal injury board.

(B) Each LIFEGUARD conducting BATHER surveillance with the responsibility of in-water rescue in less than three (3) feet of water shall have a rescue tube immediately available for use.

(C) Each LIFEGUARD conducting BATHER surveillance in a water depth of three (3) feet or greater shall have a rescue tube on his/her person in a rescue ready position.

(D) LIFEGUARDS shall wear attire that readily identifies them as members of the AQUATIC FACILITY'S LIFEGUARD staff.

(E) A whistle or other signaling device shall be worn by each LIFEGUARD conducting BATHER surveillance for communicating to PATRONS and/or staff.

(F) Personal protective devices including a resuscitation mask with a one-way valve and non-latex one-use disposable gloves shall be immediately available to all LIFEGUARDS.

(G) AQUATIC FACILITIES with one LIFEGUARD shall provide and maintain a U.S. Coast Guard-approved aquatic rescue throwing device.

(H) AQUATIC FACILITIES with one LIFEGUARD shall provide and maintain a 12 foot to 16 foot reaching pole.

3-603.8 Safety Equipment and Signage Required at Facilities without Lifeguards

(A) AQUATIC VENUES whose depth exceeds two (2) feet of standing water shall provide and maintain a U.S. Coast Guard-approved aquatic rescue throwing device, with at least a 1/4 inch thick rope whose length is 50 feet or 1.5 times the width of the AQUATIC VENUE, whichever is less. The rescue throwing device shall be located in the immediate vicinity to the AQUATIC VENUE and be visible and accessible to BATHERS.

(B) AQUATIC VENUES whose depth exceeds two (2) feet of standing water shall provide and maintain a reaching pole of 12 feet to 16 feet in length, non-telescopic, light in weight, and with a securely attached Shepherd's Crook with an aperture of at least 18 inches. The reaching pole shall be located in the immediate vicinity to the AQUATIC VENUE and be visible and accessible to BATHERS and PATRONS.

(C) Cardiopulmonary Resuscitation (CPR) posters that are up to date with the latest CPR programs and protocols shall be posted conspicuously at all times.

(D) A sign shall be posted outlining the IMMINENT HEALTH HAZARDS, which require an AQUATIC VENUE or AQUATIC FACILITY closure as defined in

these Regulations and a telephone number to report problems to the OWNER/operator.

(E) For any AQUATIC VENUE with standing water, a sign shall be posted signifying a LIFEGUARD is not on duty in four (4) inch lettering and that the following rules apply:

(1) Persons under the age of 14 cannot be in the AQUATIC VENUE without direct adult supervision meaning children shall be in adult view at all times, and

(2) Youth and childcare groups, training activities, lifeguard courses, and swim lessons are not allowed without a LIFEGUARD providing BATHER surveillance.

3-603.9 Spa Specific Signage - the following signs must be posted at all SPAS:

(A) 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.

(B) Children 12 years or younger must be supervised by an adult, the maximum recommended exposure time for such children to use the spa is 10 minutes. Posted in four (4) inch letters.

3-604 Enclosures

3-604.1 All required ENCLOSURES shall be maintained to prevent unauthorized entry to the protected space.

3-604.2 All primary public access gates or doors serving as part of an ENCLOSURE shall have functional self-closing and self-latching closures.

3-604.3 Gates or doors used solely for after-hours maintenance shall remain locked at all times when not in use by authorized staff.

3-7 Chemical Storage and Use

Subparts

3-701 Chemical Storage

3-702 Chemical Handling

3-701 Chemical Storage

3-701.1 Chemical storage and handling shall be in compliance with applicable law.

3-701.2 Storage, handling and use of each chemical shall be in compliance with the manufacturer's SDS and labels.

3-701.3 AQUATIC VENUE chemicals shall be stored to prevent access by unauthorized individuals.

3-702 Chemical Handling

3-702.1 Containers of chemicals shall be labeled, tagged, or marked with the identity of the material and a statement of the hazardous effects of the chemical according to OSHA and/or EPA materials labeling requirements.

3-702.2 Chemicals shall be measured using a dedicated measuring device where applicable. These measuring devices shall be clean, dry, and constructed of material compatible with the chemical to be measured to prevent the introduction of incompatible chemicals.

3-702.3 Chemical Addition Methods

(A) DISINFECTION and PH control chemicals shall be automatically introduced through the RECIRCULATION SYSTEM.

(1) Superchlorination or shock chemicals and other chemicals other than DISINFECTION and PH control may be added manually to the AQUATIC VENUE.
(2) Chemicals added manually directly into the AQUATIC VENUE shall only be introduced in the absence of BATHERS.

(B) Chemicals shall be diluted (or mixed with water) prior to application and as per the manufacturer's directions.
(1) Chemicals shall be added to water when diluting as opposed to adding water to a concentrated chemical.
(2) Each chemical shall be mixed in a separate, labeled container.
(3) Two or more chemicals shall never be mixed in the same dilution water.

3-8 Hygiene Facilities

Subparts
3-801 Plumbing Fixture Requirements
3-802 Provisions of Suits, Towels, and Shared Equipment

3-801 Plumbing Fixture Requirements

3-801.1 HYGIENE FACILITY fixtures, dressing area fixtures, and furniture shall be cleaned and SANITIZED as often as necessary with an EPA-REGISTERED product to provide a clean and sanitary environment.

3-801.2 HYGIENE FACILITY floors, walls, and ceilings shall be kept clean and free of visible mold and mildew.

3-801.3 HAND WASH STATIONS shall include the following items:
(A) Hand wash sink,
(B) Adjacent soap dispenser,
(C) Hand drying device or paper towels and dispenser, and
(D) Trash receptacle.

3-801.4 CLEANSING SHOWERS
CLEANSING SHOWERS shall be cleaned and SANITIZED as often as necessary with an EPA-REGISTERED product to provide a clean and sanitary environment.

3-801.5 RINSE SHOWERS
(A) RINSE SHOWERS shall be cleaned as necessary with an EPA-REGISTERED product to provide a clean and sanitary environment.
(B) RINSE SHOWERS shall be easily accessible.
(C) Equipment and furniture on the DECK shall not block access to RINSE SHOWERS.
(D) Soap dispensers and soap shall be prohibited at RINSE SHOWERS.
(E) RINSE SHOWER drains shall discharge to the sanitary sewer according to applicable law.

3-801.6 Non-Plumbing Fixture Requirements
(A) If paper towels are used for hand drying, a dispenser and paper towels shall be provided for use at HAND WASH STATIONS.
(B) Soap dispensers shall be provided at HAND WASH STATIONS and CLEANSING SHOWERS and shall be kept full of liquid or granular soap. Bar soap shall be prohibited.
(C) A minimum of one (1) hands-free trash receptacle shall be provided in areas adjacent to hand washing sinks. Trash receptacles shall be

emptied daily and more often if necessary to provide a clean and sanitary environment

(D) Non-permanent floor coverings shall be removable and maintained in accordance with Section 3-801.1. Wooden racks, duckboards, and wooden mats shall be prohibited on HYGIENE FACILITY and dressing area flooring.

3-801.7 Sharps

(A) A Biohazard Action Plan shall also be on file as required by local, state or federal regulations and included as part of the AQUATIC FACILITY SAFETY PLAN.

(B) Sharps within APPROVED containers shall be disposed of as needed by the AQUATIC FACILITY in accordance with applicable law.

3-802 Provisions of Suits, Towels, and Shared Equipment

3-802.1 All towels provided by the AQUATIC FACILITY shall be washed with detergent and bleach in warm water, rinsed, and thoroughly dried at the warmest temperature listed on the fabric label after each use. Non-absorbent, easily cleanable receptacles shall be provided for the collection of used suits and towels.

3-802.2 Equipment provided by the AQUATIC FACILITY that comes into contact with BATHER'S eyes, nose, ears, and mouth (including but not limited to snorkels, nose clips, and goggles) shall be cleaned, SANITIZED between uses, and stored in a manner to prevent biological growth.

3-802.3 Other shared equipment provided by the AQUATIC FACILITY, including but not limited to fins, kickboards, tubes, lifejackets, and noodles, shall be kept clean and stored in a manner to prevent mold and other biological growth.

3-802.4 Shared equipment shall be maintained in good repair.

3-802.5 Used and un-SANITIZED shared equipment shall be kept separate from cleaned and SANITIZED shared equipment.

3-802.6 Non-absorbent, easily cleanable receptacles shall be provided for the collection of used shared equipment.

3-9 Special Use Aquatic Venues and Features

Subparts

3-901 Waterslides

3-901.1 Signage

Warning signs shall be posted in accordance with the manufacturer's recommendations.

3-902 Wave Pools

3-902.1 Life Jackets

U.S. Coast Guard-approved life jackets that are properly sized and fitted shall be provided free for use by BATHERS who request them.

3-903 Moveable Floors

3-903.1 Starting Platforms

The use of starting platforms in the area of a MOVEABLE FLOOR shall be prohibited when the water depth is shallower than the minimum required water depth of four (4) feet.

3-903.2 Diving Boards
When a MOVEABLE FLOOR is installed into a DIVING POOL, diving shall be prohibited unless the DIVING POOL depth meets criteria set in Section 2-602.1.

3-904 Bulkheads

3-904.1 If a BULKHEAD is operated with an open area underneath, no one shall be allowed to swim beneath the BULKHEAD.

3-904.2 The BULKHEAD position shall be maintained such that it cannot encroach on any required clearances of other features such as diving boards.

3-905 Interactive Water Play Aquatic Venues

3-905.1 Cracks in the INTERACTIVE WATER PLAY AQUATIC VENUE shall be repaired when they may be a potential for leakage, present a tripping hazard, present a potential cause of lacerations, or impact the ability to properly clean and maintain the INTERACTIVE WATER PLAY AQUATIC VENUE area.

3-905.2 When cleaning the INTERACTIVE WATER PLAY AQUATIC VENUE, contaminants shall be removed or washed to the sanitary sewer. If no sanitary sewer drain is available, then debris shall be directed to the nearest DECK drain or removed in a manner that prevents contaminants from reentering the INTERACTIVE WATER PLAY AQUATIC VENUE.

3-906 Spas

3-906.1 SPA filtration systems shall be operated 24 hours per day except for periods of draining, filling, and maintenance.

3-906.2 SPAS shall be drained, cleaned, scrubbed, and have the water replaced as needed to maintain water quality and water clarity requirements.

3-906.3 SPA surfaces, including the interior of SKIMMERS, shall be scrubbed or wiped down, and have all water drained prior to refilling the SPA.

3-907 Natural Bathing Places

3-907.1 Warning signs must be posted at each end of the designated bathing area, "No Lifeguard Service Beyond This Point."

3-907.2 Conveniently located trash receptacles must be provided. These receptacles must be emptied as needed and maintained in a sanitary condition.

3-907.3 At least one LIFEGUARD and elevated chair shall be provided for every 400 feet of beach.

3-907.4 Water samples shall be submitted to a state-licensed laboratory each week. Such samples must meet the following criteria: *E. coli* at a geometric of 126 CFU per 100 mL and an STV (single test value) of 410 CFU per 100 mL measured using EPA Method 1603, or any other equivalent method that measures E. coli.

3-907.5 Failure to meet any of the criteria noted in Section 2-10012.1(B)-(F) shall result in the immediate closure of the NATURAL BATHING PLACE.

3-908 Isolation and Floatation Units

3-908.1 The maximum bathing load in a tank is one person.

3-908.2 The solution in the tank must be disinfected by normal chlorination or bromination at 3.0 to 5.0 PPM.

3-908.3 The maximum temperature of the solution in the tank must not exceed 97°F.

3-908.4 Each room must have the following signs provided:

- **(A)** Maximum water depth.
- **(B)** BATHER behavior.
- **(C)** Location of the emergency phone and emergency telephone number(s).
- **(D)** Diagrammatic CPR instructions.

3-908.5 The QUALIFIED OPERATOR information must be posted in a conspicuous location within the AQUATIC FACILITY.

SECTION 4 Policies and Management

Parts

4-1 Qualified Operator Requirement

Subpart

The provisions of this Section shall apply to all AQUATIC FACILITIES covered by these Regulations regardless of when constructed, unless otherwise noted.

Employees assigned to roles which have the potential for an occupational exposure to bloodborne pathogens, pathogens that cause RWIs, or other pathogens shall be trained to recognize and respond to body fluid (blood, feces, and vomit) releases in and around the AQUATIC VENUE area.

4-101 Qualified Operator Qualifications, Certification, and Registration

4-101.1 Operator Qualifications

(A) A QUALIFIED OPERATOR of an AQUATIC FACILITY shall have completed a training course that is recognized by the HEALTH AUTHORITY and maintain a current certification as required by the HEALTH AUTHORITY.

(B) A QUALIFIED OPERATOR shall have a current certificate or written documentation acceptable to the HEALTH AUTHORITY showing the completion of a training course.

(1) Originals or copies of such certificate or documentation shall be available on site for inspection by the HEALTH AUTHORITY for each QUALIFIED OPERATOR employed at or contracted by the site, as specified in these Regulations.

(2) Originals shall be made available upon request by the HEALTH AUTHORITY.

4-101.2 Operator Registration

(A) A QUALIFIED OPERATOR shall register with the HEALTH AUTHORITY once a certification is obtained and prior to beginning work at any AQUATIC FACILITY or with any POOL COMPANY.

(B) All QUALIFIED OPERATORS currently registered with the HEALTH AUTHORITY shall obtain proof of national certification from a recognized testing entity at the time of their registration renewal within three years from the implementation of these Regulations. Registrations will expire in conjunction with the national certification date and must be renewed prior to expiration.

(C) Individuals not properly certified or registered may not perform service at a permitted AQUATIC FACILITY. All services provided must be in accordance with these Regulations.

(D) The QUALIFIED OPERATOR is responsible for maintaining the AQUATIC VENUE in accordance with these Regulations. If a defect or deficiency is discovered at an AQUATIC VENUE that presents a risk to PATRONS, it is the QUALIFIED OPERATOR's responsibility to close the AQUATIC VENUE until the required repairs have been made.

4-101.3 Registration of Pool Companies

(A) All POOL COMPANIES who provide service to permitted AQUATIC VENUES must be registered with the HEALTH AUTHORITY and provide a current list of all registered persons in their employ within 30 days of any changes in personnel. Registrations will expire two years after the date of issuance and must be renewed prior to expiration.

(B) The AQUATIC FACILITY shall promptly post in a conspicuous *location* within each ENCLOSURE at an AQUATIC FACILITY where services are provided by a POOL COMPANY, a legible sign which identifies the company name, phone number, and the company certificate number issued by the HEALTH AUTHORITY.

(C) The AQUATIC FACILITY shall promptly remove the POOL COMPANY sign when the POOL COMPANY is no longer providing services.

(D) The AQUATIC FACILITY shall ensure each POOL COMPANY has current proof of certification while providing POOL services. Proof of certification shall consist of an unaltered and unexpired photo identification card issued by the HEALTH AUTHORITY which has the:

(1) Person's name,
(2) Type of certification,
(3) Certificate number, and
(4) Expiration date.

4-101.4 Required Servicing Equipment

The following list of equipment must be available for use by each QUALIFIED OPERATOR when providing service to a permitted AQUATIC VENUE:

(A) Water Quality Testing Devices (WQTDs) which can reliably measure:

(1) Disinfectant residual,
(2) pH,
(3) Total alkalinity,
(4) Acid demand, and
(5) Cyanuric acid concentration;

(B) A brush suitable for cleaning the bottom of the AQUATIC VENUE;

(C) A thermometer;

(D) A vacuum cleaner, complete with attachments;

(E) A leaf SKIMMER;

(F) Hand tools and lubricants necessary for servicing mechanical equipment incident to swimming POOLS and their appurtenances;

(G) Materials and chemicals necessary for disinfecting AQUATIC VENUE water and adjusting total alkalinity and pH; and

(H) Any other equipment deemed necessary by the HEALTH AUTHORITY.

4-101.5 Contractors

A licensed contractor may perform work at an AQUATIC FACILITY within the scope of the licensed contractor's qualifications.

4-101.6 Qualified Operator Training Courses must be in accordance with the criteria outlined in the most current MAHC published by the CDC.

4-2 Lifeguard Training

Subparts

4-201 Lifeguard and Attendant Qualifications
4-202 Lifeguard Supervisor Training

4-201 Lifeguard and Attendant Qualifications

4-201.1 A LIFEGUARD shall:

- **(A)** Have successfully completed a recognized LIFEGUARD training course offered by a recognized training agency;
- **(B)** Possess a current certificate for such training;
- **(C)** Have met all pre-service requirements; and
- **(D)** Participate in continuing in-service training requirements of the AQUATIC FACILITY.

4-201.2 Lifeguard Training Courses must be in accordance with the criteria outlined in the most current MAHC published by the CDC.

4-201.3 An ATTENDANT shall:

- **(A)** Possess a current certification for CPR and First Aid; and
- **(B)** Be trained by the employer to identify and correct safety hazards specific to the assigned attraction.

4-202 Lifeguard Supervisor Training

4-202.1 LIFEGUARD SUPERVISOR Candidate Prerequisites

LIFEGUARD SUPERVISOR candidate prerequisites shall include but not be limited to having:

- **(A)** A current LIFEGUARD certification;
- **(B)** A current LIFEGUARD SUPERVISOR Certification; and
- **(C)** The ability to effectively communicate verbally in English.

4-3 Facility Staffing

Subparts

4-301 Qualified Operator Requirements and Availability
4-302 Aquatic Facilities Requiring Lifeguards
4-303 Safety Plan
4-304 Staff Management

4-301 Qualified Operator Requirements and Availability

4-301.1 All AQUATIC VENUES must have a QUALIFIED OPERATOR contracted or employed to monitor and maintain the AQUATIC VENUE whenever the facility is operating.

4-301.2 The AQUATIC FACILITY'S QUALIFIED OPERATOR must be available to respond to an emergency or IMMANENT HEALTH HAZARD within two hours.

4-301.3 QUALIFIED OPERATORS shall monitor the AQUATIC VENUE weekly during the off season, a minimum of three (3) times per week during the peak season, or more often as necessary to maintain compliance with these Regulations.

- **(A)** Weekly visits shall be documented and be available at the AQUATIC FACILITY for review by the HEALTH AUTHORITY.
- **(B)** The written documentation shall indicate the checking, MONITORING, and testing required in these Regulations.

(C) The written documentation shall indicate what corrective actions, if any, were taken by the contracted off-site QUALIFIED OPERATOR during the scheduled visits or assistance requests.

(D) All AQUATIC FACILITIES without a full time on-site QUALIFIED OPERATOR shall have a designated on-site RESPONSIBLE PERSON.

(E) The designated on-site RESPONSIBLE PERSON shall:

(1) Be capable of testing and recording the water quality parameters required by these Regulations;

(2) Be capable of properly closing an AQUATIC VENUE in accordance with these Regulations;

(3) Know when the AQUATIC FACILITY or individual AQUATIC VENUE should be closed; and

(4) Know how and when to contact the contracted off-site QUALIFIED OPERATOR.

(5) Not make adjustments or perform any maintenance at the AQUATIC VENUE.

4-302 Aquatic Facilities Requiring Lifeguards

4-302.1 All AQUATIC VENUES with standing water and any of the following conditions listed in this Section shall be required to have a LIFEGUARD(s) conducting BATHER surveillance at all times the AQUATIC VENUE is open.

(A) A LIFEGUARD shall be required for any of the following conditions:

(1) Any POOL that allows unsupervised children under the age of 14 years;

(2) Any POOL while it is being used for the recreation of youth groups, including but not limited to, childcare usage or school groups;

(3) Any AQUATIC VENUE while it is being used for group training including but not limited to competitive swimming and/or sports, LIFEGUARD training, exercise programs, and swimming lessons;

(4) Any AQUATIC VENUE with a surface area of at least 2000 square feet;

(5) Any AQUATIC VENUE ENCLOSURE with a cumulative unsupervised POOL surface area of 4000 square feet or more;

(6) Any AQUATIC VENUE with an induced current or wave action including but not limited to WAVE POOLS and LAZY RIVERS;

(7) WATERSLIDE LANDING POOLS;

(8) Any AQUATIC VENUE in which BATHERS enter the water from any height above the DECK including but not limited to diving boards, DROP SLIDES, starting platforms, and/or climbing walls;

(9) Any POOL that charges an admission fee or where a rental fee includes the use of the POOL; or

(10) Any POOL not associated with multiple living or lodging units.

4-303 Safety Plan

4-303.1 All AQUATIC FACILITIES shall create and implement a SAFETY PLAN to include, but not be limited, to the following elements:

(A) Staffing Plan,

(B) EMERGENCY ACTION PLAN (EAP),

(C) Biohazard action plan,

(D) Pre-Service Training Plan, and

(E) In-service Training Plan.

4-303.2 When LIFEGUARDS are required, a Lifeguard Staffing Plan shall be submitted to the HEALTH AUTHORITY for approval prior to opening. The plan shall include diagrammed zones of BATHER surveillance for each AQUATIC VENUE that ensures the following:

(A) At least one LIFEGUARD shall be required for every 2000 square feet or major fraction thereof, unless an independent lifeguard auditing entity provides documentation validating that the proposed number of LIFEGUARDS will meet all of the requirements outlined in this section. A minimum of three (3) unannounced audits must be conducted by the auditing entity each season with copies provided to and available for review by the HEALTH AUTHORITY;

(B) The LIFEGUARD is capable of viewing the entire area of the assigned zone of BATHER surveillance;

(C) The LIFEGUARD is able to reach the furthest extent of the assigned zone of BATHER surveillance within 20 seconds;

(D) Identify whether the LIFEGUARD is in an elevated stand, walking, in-water and/or other APPROVED position;

(E) Additional responsibilities for each zone as identified; and

(F) All areas of each AQUATIC VENUE are assigned a zone of BATHER surveillance.

(G) Any modifications to the APPROVED LIFEGUARD plan must be submitted and APPROVED by the HEALTH AUTHORITY prior to implementation.

4-303.3 The Lifeguard Staffing Plan shall include the following:

(A) Identification of all zones of BATHER surveillance at the AQUATIC FACILITY;

(B) Description of methods used for maintaining coverage of the zone of BATHER surveillance during LIFEGUARD rotation; and

(C) Staffing rotation schedule which provides an alternation of tasks such that no LIFEGUARD conducts BATHER surveillance activities for more than 60 continuous minutes.

(1) Alternation of tasks includes a change in the zone of surveillance that requires relocation of the LIFEGUARD or a period of 10 minutes of non-PATRON surveillance activity such as taking a break, conducting maintenance or conducting ride dispatch.

4-303.4 The Lifeguard Staffing Plan shall include LIFEGUARD supervision protocols to achieve the requirements of Section 4-304.3.

4-303.5 LIFEGUARDS shall be trained on and receive a copy of the EAP that is posted and always available at the AQUATIC FACILITY, as well as the following policies and procedures:

(A) Zone of BATHER Surveillance Plan,

(B) Rotation Plan,

(C) Minimum Staffing Plan, and

(D) Rescue/First Aid Response plan.

4-303.6 The RESPONSIBLE PERSON(s) with CPR/AED and first aid training shall present unexpired certificate(s) maintained on site and available for review at the time of inspection.

4-303.7 Any modifications to the APPROVED Lifeguard Staffing Plan must be submitted and APPROVED by the HEALTH AUTHORITY prior to implementation.

4-304 Staff Management

4-304.1 Prior to use of any AQUATIC VENUE, the AQUATIC FACILITY shall provide staff required per the provisions of the SAFETY PLAN as stated in Section 4-303.1.

4-304.2 RESPONSIBLE PERSON duties shall include, but not be limited to:

(A) Enforcing the AQUATIC FACILITY rules and regulations by interfacing with PATRONS;

(B) Respond to reported emergencies;

(C) Identify health and safety hazards and take action to mitigate or avoid the hazard;

(D) Know where the PPE is located and use it when required; and

(E) Interface with the HEALTH AUTHORITY related to the requirements of these Regulations.

4-304.3 Lifeguard Staff

(A) Where LIFEGUARDS are used, the AQUATIC FACILITY shall provide, prior to opening the AQUATIC FACILITY to the public, the minimum number of LIFEGUARDS and staff required per the provisions of the SAFETY PLAN such that:

(1) All zones of BATHER surveillance are staffed during operation;

(2) Zones of BATHER surveillance for individual AQUATIC VENUES not open for use, must also be staffed unless an effective means is provided to restrict and monitor access to the AQUATIC VENUE;

(3) Rotations can be conducted while all zones are staffed;

(4) LIFEGUARD SUPERVISOR is present; and

(5) Additional PERSON(s) to rapidly respond to an emergency to help the initial rescuer are present.

(B) LIFEGUARD responsibilities shall include but not be limited to:

(1) Monitor BATHERS within the zone of BATHER surveillance responsibility;

(2) Enforce facility rules;

(3) Respond to emergencies including water rescue, CPR, AED use, and first aid;

(4) Identify health and safety hazards and take action to mitigate or avoid the hazard;

(5) Maintain skills at a test-ready proficiency level;

(6) Wear the identifying uniform;

(7) If needed for effective BATHER surveillance, wear corrective eyewear and/or wear polarized sunglasses;

(8) Know where PPE is located and use it when required.

(C) LIFEGUARDS assigned responsibilities for BATHER surveillance shall not be assigned other tasks that intrude on BATHER surveillance.

(D) While conducting BATHER surveillance, LIFEGUARDS shall not engage in social conversations or have on their person or LIFEGUARD STATION cellular telephones, texting devices, music players, or other similar non-emergency electronic devices.

4-304.4 ATTENDANT Staff

(A) ATTENDANTS are required at each entry and exit point of WATERSLIDES or DROP SLIDES in sufficient numbers to ensure proper dispatching and surveillance of riders.

(B) Attendants must have a method of communication between the entry attendant and the runout attendant.

4-304.5 LIFEGUARD SUPERVISOR Staff

(A) AQUATIC FACILITIES that are required to have two (2) or more LIFEGUARDS per the Lifeguard Staffing Plan's zone of BATHER surveillance responsibility in Section 4-303.2 shall have at least one person located at the AQUATIC FACILITY during operation designated as

the LIFEGUARD SUPERVISOR who meets the requirement of Section 4-202.

(1) One of the LIFEGUARDS may be designated as the LIFEGUARD SUPERVISOR in addition to fulfilling the duties of LIFEGUARD.

(B) LIFEGUARD SUPERVISOR duties shall not interfere with the primary duty of BATHER surveillance.

(C) LIFEGUARD SUPERVISOR responsibilities shall include but not be limited to:

(1) Monitor performance of LIFEGUARDS in their zone of BATHER surveillance responsibility;

(2) Ensure the rotation is conducted in accordance with the Lifeguard Staffing Plan;

(3) Coordinate staff response and BATHER care during an emergency;

(4) Identify health and safety hazards and communicate to staff and management to mitigate or avoid the hazard; and

(5) Ensure the required equipment per Section 3-603.2 is in place and in good condition.

4-304.6 Emergency Action and Communications Plans

(A) AQUATIC FACILITIES with required LIFEGUARD staff shall create and maintain an operating procedures manual containing information on the emergency response and communications plan including an EAP, Facility Evacuation Plan, and Inclement Weather Plan.

(B) A written EAP shall be developed, maintained, and updated as necessary for the AQUATIC FACILITY.

(C) The written EAP shall be kept at the AQUATIC FACILITY and available for emergency personnel and/or the HEALTH AUTHORITY upon request.

(D) The EAP shall include at a minimum:

(1) A diagram of the AQUATIC FACILITY;

(2) A list of emergency telephone numbers;

(3) The location of first aid kit and other rescue equipment (bag valve mask, AED, if provided, backboard, etc.);

(4) An emergency response plan for accidental chemical release; and

(5) A fecal/vomit/blood CONTAMINATION RESPONSE PLAN as outlined in Section 4-501.

(E) A written Facility Evacuation Plan shall be developed and maintained for the AQUATIC FACILITY. This plan shall include, at a minimum:

(1) Actions to be taken in cases of drowning, serious illness or injury, chemical handling accidents, weather emergencies, and other serious incidents; and

(2) Defined roles and responsibilities for all staff.

(F) A communication plan shall exist to facilitate activation of internal emergency response centers and/or community 911/EMS as necessary.

(G) The AQUATIC FACILITY shall have a contingency/response plan for localized weather events that may affect its operation (i.e., lightning, high winds, etc.).

4-304.7 Remote MONITORING Systems

(A) Lifeguard-based remote safety MONITORING systems shall not replace the need for LIFEGUARDS. Remote safety MONITORING systems may be used to aid the operation, but not as a substitute for LIFEGUARDS or

ATTENDANTS when critical areas such as blind spots in an AQUATIC VENUE or area of a SLIDE are visually obstructed or otherwise cannot be viewed by a LIFEGUARD or ATTENDANT.

(B) QUALIFIED OPERATOR-based remote water quality MONITORING systems shall not be a substitute for manual water quality testing of the AQUATIC VENUE.

(C) When LIFEGUARD or QUALIFIED OPERATOR-based remote MONITORING systems are used, AQUATIC FACILITY staff shall be trained on their use, limitations, and communication and response protocols for communications with the MONITORING group.

4-304.8 Employee Illness and Injury Policy

(A) LIFEGUARD SUPERVISORS shall not permit employees who are ill with diarrhea to enter the water or perform in a LIFEGUARD role.

(B) LIFEGUARD SUPERVISORS shall not permit employees with open wounds in the water or in a LIFEGUARD role unless they have healthcare provider approval or wear a waterproof, occlusive bandage to cover the wound.

4-4 Facility Management

Subparts

4-401 Operations

4-402 Patron-Related Management Aspects

4-401 Operations

4-401.1 Operations Manual

(A) Each AQUATIC FACILITY shall develop an operations manual to keep at the AQUATIC FACILITY in either a printed or electronic format that is readily available for review during inspection.

(B) The manual shall at minimum include, but not be limited to, the following items:

(1) AQUATIC VENUE and AQUATIC FEATURE description(s) and locations;

(2) Facility communication;

(3) List of chemicals and system information;

(4) Fecal/vomit and body fluid contamination response protocols;

(5) Preventive maintenance plan; and

(6) Any other standard operation and maintenance policies and instructions or applicable information for each AQUATIC VENUE and AQUATIC FEATURE at the facility.

4-401.2 Operation Records

(A) AQUATIC FACILITIES shall keep records pertaining to the operation, maintenance, and management of the AQUATIC FACILITY. AQUATIC FACILITY records shall be:

(1) Kept for a minimum of three years, and

(2) Available upon request by the HEALTH AUTHORITY.

4-401.3 Safety and Maintenance Inspection and Recordkeeping

(A) The QUALIFIED OPERATOR or RESPONSIBLE PERSON shall ensure a daily AQUATIC FACILITY preventive maintenance inspection is done before opening which includes:

(1) Walkways, DECKS and exits are clear, clean and free of debris;

(2) Drain covers, vacuum fitting covers, SKIMMER equalizer covers, and any other suction outlet covers are in place, secure, and unbroken;
(3) SKIMMER baskets, weirs, lids, flow adjusters, and suction outlets are free of any blockage;
(4) INLET and return covers and any other fittings are in place, secure, and unbroken;
(5) Safety warning signs and other signage are in place and in good repair;
(6) Safety equipment required by these Regulations is in place and in good repair, including emergency instructions and phone numbers;
(7) Entrapment prevention systems are operational;
(8) Recirculation, DISINFECTION systems, controller(s), and probes are operating as required;
(9) SECONDARY and/or SUPPLEMENTAL DISINFECTION SYSTEMS are operating as required;
(10) Underwater lights and other lighting are intact with no exposed wires or water in lights;
(11) Slime and biofilm has been removed from accessible surfaces of AQUATIC VENUES, SLIDES, and other AQUATIC FEATURES;
(12) Doors to nonpublic areas (CHEMICAL STORAGE SPACES, offices, etc.) are locked;
(13) First aid supplies are stocked;
(14) Emergency communication equipment and systems are operational;
(15) Fecal/vomit/blood incident contamination response protocols, materials, and equipment are available;
(16) Water features and amenities are functioning in accordance with the manufacturer's recommendations;
(17) ENCLOSURES, gates, and self-latching or other locks are tested, intact, and functioning properly, and ENCLOSURES do not have nearby furniture to encourage climbing;
(18) Drinking fountains are clean and in functional condition;
(19) Electrical devices are in good working condition and meet NEC requirements;
(20) Alarms, if required, are tested and functioning properly;
(21) Assessing water clarity such that the bottom and objects in the AQUATIC VENUE are clearly visible;
(22) Monthly tests of GFCI devices and emergency phone; and
(23) Inspections every six months of bonding conductors, where accessible.

4-401.4 Water MONITORING and Testing Records

MONITORING and testing records shall include the following:

(A) PH level;
(B) Disinfectant residuals;
(C) Operating pressures of water recirculation pumps and filters or the corresponding flow rate from flow meter readings;
(D) Cyanuric acid levels, if used;
(E) Maintenance and malfunctioning of equipment, including dates and time of all equipment calibration including WQTDs;
(F) If heated, AQUATIC VENUE water temperature;

(G) The time of filter backwash or cleaning;
(H) Total alkalinity;
(I) Microbiological testing, if applicable, dates/times samples were taken and results,
(J) Any equipment failure, power outage, or error resulting in the interruption of the circulation, filtration, or DISINFECTION systems for more than one hour;
(K) The daily attendance at the AQUATIC FACILITY; and
(L) SECONDARY DISINFECTION SYSTEMS when required.

4-401.5 Staff Certifications on File

Copies of all required LIFEGUARD, LIFEGUARD SUPERVISOR, or QUALIFIED OPERATOR certificates shall be maintained at the AQUATIC FACILITY and made available to the HEALTH AUTHORITY upon request.

4-401.6 Bodily Fluids Remediation Log

(A) A Body Fluid Contamination Response Log shall be maintained to document each occurrence of contamination of the water or its immediately adjacent areas by formed or diarrheal fecal material, stomach discharge of vomit, and blood.
(B) The AQUATIC FACILITY's standard operating procedures for responding to these contamination incidents shall be readily available for review by the HEALTH AUTHORITY.
(C) The log shall include the following information recorded at the time of the incident:
(1) Person conducting response;
(2) QUALIFIED OPERATOR or on-site RESPONSIBLE PERSON on duty;
(3) Date and time of incident response;
(4) Specific area, if not in the water, contaminated by incident;
(5) BATHER COUNT in the AQUATIC VENUE at the time of incident;
(6) Type and form of body fluid observed e.g., diarrheal or formed stool, vomitus, or blood;
(7) Date and time the area was closed;
(8) Whether the AQUATIC VENUE used CHLORINE stabilizer and its concentration at time of incident;
(9) Free residual disinfectant and PH levels at the time of incident;
(10) Remediation procedures used after the incident including the disinfectant contact time, if applicable;
(11) Free residual disinfectant and PH level at the time of reopening the AQUATIC VENUE to the public;
(12) Stabilizer concentration, if used, at the time of reopening; and
(13) Date and time of reopening.

4-402 Patron-Related Management Aspects

4-402.1 BATHER COUNT-Maximum Occupancy

AQUATIC FACILITIES that typically operate with low BATHER OCCUPANCY shall have a plan in place to adjust for potential higher BATHER use. Such plans shall not exceed the maximum designed THEORETICAL PEAK OCCUPANCY for the individual AQUATIC VENUES or the AQUATIC FACILITY.

4-402.2 Signage

(A) The QUALIFIED OPERATOR shall post and enforce the AQUATIC FACILITY rules governing health, safety, and sanitation.
(B) The lettering shall be legible and at least one (1) inch (36 point type) high, with a contrasting background, unless otherwise specified.

(C) Signage shall be conspicuously placed at each entrance to the AQUATIC FACILITY communicating expected and prohibited behaviors and other information using text that complies with the intent of the following information:

- **(1)** In case of an emergency, dial 911 or other emergency instructions;
- **(2)** Hours of operation;
- **(3)** THEORETICAL PEAK OCCUPANCY;
- **(4)** No smoking in the AQUATIC VENUE or on the DECK;
- **(5)** Do not swim if you have open wounds;
- **(6)** Do not swim if you are ill with diarrhea or have had diarrhea within the past two weeks;
- **(7)** Shower before entering the water;
- **(8)** No glass items in the AQUATIC VENUE or on the DECK;
- **(9)** Diaper changing on the DECK is prohibited;
- **(10)** No animals in the AQUATIC VENUE and no animals on the DECK, except service animals; and
- **(11)** QUALIFIED OPERATOR information to include name, registration number, and contact information.

(D) In addition to signage listed in Section (C), unstaffed AQUATIC FACILITIES shall also include signage messages covering:

- **(1)** No Lifeguard on Duty, in letters at least four (4) inches high;
- **(2)** Children under 14 years of age must have adult supervision;
- **(3)** No Solo Bathing; and
- **(4)** Hours of operation; AQUATIC FACILITY use prohibited at any other time
  - **(a)** AQUATIC FACILITIES without compliant lighting must limit hours of operation from dawn to dusk.

(E) In AQUATIC FACILITIES not requiring LIFEGUARDS, CPR posters reflecting the latest standards shall be posted conspicuously at all times.

(F) Signage shall be conspicuously placed within 30 feet of each entrance to each AQUATIC VENUE communicating expected and prohibited behaviors and other information using text that complies with the intent of the following information:

- **(1)** No Diving, in letters at least four (4) inches high, as applicable per Section 2-3018.10;
- **(2)** Location of the nearest emergency phone;
- **(3)** Maximum BATHER OCCUPANCY;
- **(4)** Pollution of AQUATIC VENUE prohibited;
- **(5)** Do not swallow or spit water;
- **(6)** Intentional hyperventilation or extended breath holding activities are dangerous and prohibited.

(G) In addition to Section (C) requirements, AQUATIC VENUES with moveable bottom floors shall also have the following information or text complying with the intent of the following information:

- **(1)** A sign for AQUATIC VENUE water depth in use shall be provided and clearly visible;
- **(2)** A "No Diving" sign shall be provided; and
- **(3)** The floor is movable and AQUATIC VENUE depth varies.

(H) In addition to Section (C) requirements, SPAS shall also have the following information or text complying with the intent of the following information:

(1) Maximum water temperature is 104°F;

(2) Pregnant women and people with heart disease, high blood pressure or other health problems should not use SPAS without prior consultation with a healthcare provider;

(3) Children under 12 years of age must be accompanied by an adult, the maximum recommended exposure time for such children is 10 minutes, posted in four (4) inch lettering; and

(4) Use of the SPA when alone is prohibited (if no LIFEGUARDS on site).

(I) Signage shall be posted at the HYGIENE FACILITY exit used to access AQUATIC VENUES stating or containing information, or text complying with the intent of the following information:

(1) Do not swim when ill with diarrhea;

(2) Do not swim with open wounds and sores;

(3) Shower before entering the water;

(4) Check your child's swim diapers/rubber pants regularly;

(5) Diaper changing on the DECK is prohibited;

(6) Do not poop or pee in the water;

(7) Do not swallow or spit water; and

(8) Wash hands before returning to the AQUATIC VENUE.

4-402.3 BATHERS must wear appropriate attire that is designed and intended for use as swimwear where swimwear is required. Street clothing may not be worn while bathing.

4-5 Fecal/Vomit/Blood Contamination Response

Subparts

4-501 Contamination Response Plan

4-501.1 All AQUATIC FACILITIES shall have a CONTAMINATION RESPONSE PLAN within the EAP for responding to formed-stool contamination, diarrheal-stool contamination, vomit contamination, and contamination involving blood.

4-501.2 The Response Plan shall be reviewed at least annually and updated as necessary.

4-501.3 The Response Plan shall be kept on site and available for viewing by the HEALTH AUTHORITY.

4-502 Aquatic Venue Water Contamination Response

4-502.1 Closure

In the event of a fecal or vomit contamination in an AQUATIC VENUE, the QUALIFIED OPERATOR shall immediately close the AQUATIC VENUE to BATHERS until remediation procedures are complete. This closure shall include the affected AQUATIC VENUE and other AQUATIC VENUES that share the same RECIRCULATION SYSTEM.

4-502.2 Physical Removal
Contaminating material shall be removed and disposed of in a sanitary manner.

(A) The item used to remove fecal or vomit contamination shall undergo thorough cleaning followed by DISINFECTION.

(B) Aquatic vacuum cleaners shall not be used for removal of contamination from the water or adjacent surfaces unless vacuum waste is discharged to a sanitary sewer and the vacuum equipment can be adequately disinfected.

4-503 Aquatic Venue Water Contamination Treatment and Disinfection

4-503.1 In the event of a fecal, vomit, or blood contamination incident, the AQUATIC FACILITY shall follow the most recent response guidelines from the CDC Healthy Swimming Fecal Incident Response Recommendations for Aquatic Staff.

Note: The use of stabilized CHLORINE or CYA inhibits the effectiveness of the disinfecting agent and may require the draining of an AQUATIC VENUE if the concentration cannot be lowered to 15 PPM prior to treatment per guidelines above.

4-504 Surface Contamination Cleaning and Disinfection

4-504.1 If a bodily fluid, such as feces, vomit, or blood, has contaminated a surface in an AQUATIC FACILITY, facility staff shall limit access to the affected area until remediation procedures have been completed.

4-504.2 Before DISINFECTION, all visible contaminant shall be cleaned and removed with disposable cleaning products effective with regard to the type of contaminant present, type of surface to be cleaned, and the location within the facility.

4-504.3 Contaminant removed by cleaning shall be disposed of in a sanitary manner or as required by law.

4-504.4 Contaminated surfaces shall be disinfected with one of the following DISINFECTION solutions:

(A) A 1:10 dilution of fresh household bleach with water; or

(B) An equivalent EPA REGISTERED disinfectant that has been APPROVED for body fluids DISINFECTION.

4-504.5 The disinfectant shall be left to soak on the affected area for a minimum of 20 minutes or as otherwise indicated on the disinfectant label directions.

4-504.6 Disinfectant shall be removed by cleaning and shall be disposed of in a sanitary manner or as required by the HEALTH AUTHORITY.

SECTION 5 Compliance and Enforcement

Parts

5-1 Provision for Conditions Not Addressed in these Regulations

5-101 The HEALTH AUTHORITY shall address conditions when necessary to protect public health and may impose temporary, specific requirements in addition to the requirements specified in these Regulations.

5-102 The HEALTH AUTHORITY shall document the conditions that necessitate the imposition of additional requirements and the underlying public health rationale. The documentation shall be provided to the PERMIT applicant or PERMIT HOLDER, and a copy shall be maintained in the HEALTH AUTHORITY's file for the AQUATIC FACILITY.

5-2 Prerequisites for Operation

Subparts

5-201 Permit Requirements

A person shall not operate an AQUATIC FACILITY without a valid PERMIT issued by the HEALTH AUTHORITY.

5-202 Permit Application, Renewals, Transfers, Submission, Conditions, and Content

5-202.1 Application and Submission

(A) For new construction and SUBSTANTIAL ALTERATIONS, plans will be reviewed and a written response outlining any additional information or corrections needed for the plan approval within 30 business days from the most recent date of submission.

(B) If from the date of plan approval, construction has not been initiated within one (1) calendar year, or construction halts for one (1) calendar year, the HEALTH AUTHORITY may, in its sole discretion, delete the PERMIT and require the resubmission of plans and a PERMIT application with associated fees prior to resuming construction.

5-202.2 Conditions

To qualify for a PERMIT, an applicant shall:

(A) Be an OWNER, prospective OWNER, or person legally in charge OWNER designee, or an officer of the legal ownership of the AQUATIC FACILITY;

(B) Pay the applicable PERMIT fees at the time the application is submitted; and

(C) Comply with the requirements of these Regulations.

5-202.3 Application, Renewal, and Submission

(A) Applications for an initial, new, or renewal PERMIT must be made on an application form furnished by the HEALTH AUTHORITY.

(B) All applications must be submitted at least 30 days before:

(1) The opening date of any AQUATIC VENUE or AQUATIC FACILITY;

(2) The expiration of any PERMIT; and/or

(3) The effective date of a change of ownership.

5-202.4 Contents of the Application

The application must include:

(A) The name, mailing address, telephone number, and signature of the person applying for the PERMIT.

(B) The name, mailing address, and physical location of the AQUATIC FACILITY.

(C) If an application is made by a corporation, an LLC, association or partnership, the names of the members or officers and signature of at least one managing member or officer, a contact telephone number, and address shall be provided.

(D) Information specifying whether an association, corporation, individual, partnership, or other legal entity owns the AQUATIC FACILITY.

(E) The name, title, address, and telephone number of the RESPONSIBLE PERSON for the AQUATIC FACILITY.

(F) The name, title, address, and telephone number of the person who functions as the immediate supervisor of the RESPONSIBLE PERSON including, but not limited to the zone, district, or regional supervisor.

(G) Proof of ownership, lease agreement, or other legal document that establishes the standing of the applicant's authority to use the land for the PERMIT purpose.

(H) The names, titles, and business addresses of:

(1) The legal owners of the physical location of the AQUATIC FACILITY.

(2) The local authorized applicant, if one is required, based on the type of legal ownership. Authorization shall be in writing and shall be signed by the OWNER or corporate officer, managing member, or other authorized person.

(I) A statement signed by the applicant that:

(1) Attests to the accuracy of the information provided in the application; and

(2) Affirms that the applicant will:

(a) Comply with these Regulations and

(b) Allow the HEALTH AUTHORITY access to the establishment and to any records needed to establish compliance with these Regulations.

(J) Other information as required by the HEALTH AUTHORITY.

5-202.5 Denial of Application for PERMIT, Notice

If an application for a PERMIT to operate is denied, the HEALTH AUTHORITY shall provide the applicant with a notice which includes the:

(A) Specific reasons and regulatory citations for denial of the PERMIT;

(B) Actions the applicant must take to qualify for a PERMIT; and

(C) Applicant's right of appeal and the appeal process.

5-3 Waivers

Subparts

5-301 Conditions of Waiver

5-302 Documentation of Proposed Waiver and Justification

5-303 Change of Ownership of an Existing Aquatic Facility

5-301 Conditions of Waiver

The HEALTH AUTHORITY may grant a WAIVER by modifying or waiving the requirements of these Regulations if, in the opinion of the HEALTH AUTHORITY, no impact to the public health and safety of PATRONS will result from the WAIVER.

5-301.1 During the WAIVER process, the HEALTH AUTHORITY may impose conditions upon the WAIVER.

5-301.2 If a WAIVER is granted, the HEALTH AUTHORITY shall retain the information in its records for the AQUATIC VENUE or AQUATIC FACILITY.

5-301.3 Failure to meet any WAIVER condition may result in the immediate revocation of the WAIVER. If the WAIVER is granted, the PERMIT HOLDER shall comply with any operational plans, procedures, and conditions APPROVED as a basis for the WAIVER.

5-302 Documentation of Proposed Waiver and Justification

An AQUATIC FACILITY seeking a WAIVER shall apply in writing with the appropriate forms to the HEALTH AUTHORITY. The application shall include, but not be limited to:

5-302.1 A statement of the proposed WAIVER of the regulatory requirement citing relevant Regulation section numbers.

5-302.2 A statement of how the intent of the Regulations will be met and the reasons why public health and safety would not be jeopardized if the waiver was granted.

5-302.3 An operational plan, if required, that includes information relevant to the WAIVER requested.

5-302.4 Any requested records or documentation required as part of the WAIVER approval.

5-303 Change of Ownership of an Existing Aquatic Facility

5-303.1 An existing AQUATIC FACILITY, at the time of change of ownership, shall meet the requirements of this Section prior to issuance of a PERMIT.

5-303.2 The HEALTH AUTHORITY may issue a PERMIT to a new OWNER of an existing AQUATIC FACILITY after a properly completed application is submitted, reviewed, and APPROVED, fees are paid, and an inspection is passed.

5-303.3 A facility may be required to bring any aspect of the AQUATIC VENUE or AQUATIC FACILITY into compliance with the current Regulations when ownership changes.

5-4 Responsibilities

Subparts

5-401 Responsibilities of the Health Authority

The responsibilities of the HEALTH AUTHORITY include:

5-401.1 At the time a PERMIT is first issued, the HEALTH AUTHORITY shall inform the PERMIT HOLDER where a copy of these Regulations may be obtained, and that the PERMIT HOLDER is responsible for compliance with these Regulations.

5-401.2 Failure to provide the above information does not prevent the HEALTH AUTHORITY from taking authorized action, or seeking remedies, if the PERMIT HOLDER fails to comply with these Regulations or an order, warning, or directive of the HEALTH AUTHORITY.

5-402 Responsibilities of the Permit Holder

To retain the PERMIT, the PERMIT HOLDER shall:

5-402.1 Post the PERMIT in a location in the AQUATIC FACILITY that is clearly conspicuous to the PATRON upon entering the AQUATIC FACILITY or immediately available upon request.

5-402.2 Comply with the provisions of these Regulations including the conditions of a granted VARIANCE, APPROVED WAIVER, and APPROVED plans.

5-402.3 Immediately discontinue operations and notify the HEALTH AUTHORITY if an IMMINENT HEALTH HAZARD exists.

5-402.4 Immediately notify the HEALTH AUTHORITY if a drowning, near drowning, or water rescue event occurs.

5-402.5 Allow representatives of the HEALTH AUTHORITY access to the AQUATIC VENUE or AQUATIC FACILITY upon request.

5-402.6 Comply with directives of the HEALTH AUTHORITY, including, but not limited to, time frames for corrective actions specified in inspection reports, supervisory conferences, compliance schedules, notices, orders, warnings, and other directives issued by the HEALTH AUTHORITY concerning the PERMIT HOLDER'S AQUATIC FACILITY or in response to community emergencies.

5-402.7 Comply with all applicable federal, state and local governmental requirements as related to the operation of an AQUATIC VENUE or AQUATIC FACILITY. The responsibility of upholding these requirements falls solely on the PERMIT HOLDER, and failure to do so may result in PERMIT suspension or revocation.

5-402.8 Accept notices issued and served by the HEALTH AUTHORITY.

5-402.9 Be subject to the administrative, civil, injunctive, and criminal remedies as specified in NRS Chapter 444, for failure to comply with these Regulations or with a directive of the HEALTH AUTHORITY, including but not limited to time frames for corrective actions specified in inspection reports, supervisory conferences, compliance schedules, notices, orders, warnings, and other directives.

5-403 Permit Modifications

Proposed modifications in the type of operations to be conducted by an AQUATIC FACILITY must not be allowed unless APPROVED by the HEALTH AUTHORITY. The modification process may include, but not be limited to, submission of a construction application, complete with plans and information describing the proposed modifications in design, equipment, and operations.

5-404 Permit Transfer Prohibited

A PERMIT may not be transferred from one OWNER to another, from one AQUATIC VENUE or AQUATIC FACILITY to another.

5-5 Enforcement Inspections

Subparts

5-501 Inspection Authority

5-501.1 Upon presenting proper identification, the HEALTH AUTHORITY shall have the right of access, entrance, inspection, and investigation of any AQUATIC FACILITY permitted by these Regulations.

5-501.2 Unless a QUALIFIED OPERATOR is available onsite all day, keys must be provided to allow access to the AQUATIC VENUE, pump room, HYGIENE FACILITY, and any other related areas.

5-501.3 The right of access pursuant to this Section, includes, but, is not limited to access for the purpose of:

- **(A)** Routine inspection;
- **(B)** Inspect or investigate to determine if there has been a violation of NRS Chapter 444 or these Regulations;
- **(C)** Verify compliance with previously written violation orders;
- **(D)** Collect samples or specimens;
- **(E)** Examine, review, and copy relevant documents and records;
- **(F)** Obtain photographic or other evidence needed to enforce these Regulations; and
- **(G)** Question any person.

5-501.4 If the HEALTH AUTHORITY is refused access, the HEALTH AUTHORITY shall provide details of the denial of access on an inspection report form and the AQUATIC FACILITY will be posted as closed.

5-502 Inspection Frequency

5-502.1 An AQUATIC FACILITY'S inspection frequency may be amended based on the risk of recreational water injury and illness.

5-503 Posting Aquatic Venue Closures

5-503.1 Where an IMMINENT HEALTH HAZARD is found, the AQUATIC VENUE may be posted closed.

5-503.2 Closure signs shall be conspicuously posted at each entrance leading to the AQUATIC VENUE.

5-503.3 Concealment, mutilation, alteration, or removal of Closure signs by any person without permission from the HEALTH AUTHORITY shall constitute a violation of these Regulations.

5-504 Follow-up Inspection

The HEALTH AUTHORITY shall inspect the premises upon notification that the hazard has been eliminated and remove the closure signs after verifying correction. The HEALTH AUTHORITY, in its sole discretion, may accept other evidence of correction of the hazard in lieu of inspecting the premises.

5-505 Appeal Process

5-505.1 A person aggrieved by an action taken by the HEALTH AUTHORITY may request a meeting with the employee responsible for the action and the program supervisor within 10 business days.

5-505.2 If the meeting does not resolve the issue, the aggrieved person may submit a written request for a meeting with the division director or section manager within 10 business days.

5-6 Imminent Health Hazards

Subpart

5-601 Violations Requiring Immediate Correction or Closure

5-601 Violations Requiring Immediate Correction or Closure

Any of the following violations are IMMINENT HEALTH HAZARDS that require immediate correction or closure of the AQUATIC VENUE until the condition is corrected:

5-601.1 Failure to provide adequate supervision of children and required staffing such as: LIFEGUARDS, ATTENDANTS, and a QUALIFIED OPERATOR for the AQUATIC FACILITY as prescribed in these Regulations;

5-601.2 Failure to provide disinfectant residual levels within the minimum and maximum limits designated in these Regulations;

5-601.3 Failure to treat and achieve proper disinfection following a body fluid contamination event;

5-601.4 PH level below 6.5;

5-601.5 PH level above 8.0;

5-601.6 Failure to continuously operate the AQUATIC VENUE filtration and DISINFECTION equipment;

5-601.7 Failure to maintain CYA levels below 80 PPM;

5-601.8 Use of an unapproved or contaminated water supply source for potable water;

5-601.9 Non-GFCI protected electrical receptacles within 20 feet of the inside wall of the AQUATIC VENUE;

5-601.10 Failure to maintain GFCI protection for underwater lighting as required;

5-601.11 Absence of all required lifesaving equipment on DECK;

5-601.12 AQUATIC VENUE bottom not clearly visible;

5-601.13 Total absence of or improper depth markings at an AQUATIC VENUE;

5-601.14 Plumbing CROSS-CONNECTIONS between the drinking water supply and AQUATIC VENUE water or between the sewage system and the AQUATIC VENUE including filter backwash facilities;

5-601.15 Failure to provide and maintain an ENCLOSURE or BARRIER to inhibit unauthorized access to the AQUATIC FACILITY or AQUATIC VENUE as required;

5-601.16 Use of unapproved chemicals or the application of chemicals by unapproved methods to the AQUATIC VENUE water;

5-601.17 Broken, unsecured, or missing submerged suction outlet covers in the AQUATIC VENUE;

5-601.18 Gates that are not self closing and self latching and/or ENCLOSURE breaches or gaps;

5-601.19 Broken glass or sharp objects in the AQUATIC VENUE or on the DECK area; or

5-601.20 Any other item determined to be an IMMINENT HEALTH HAZARD by the HEALTH AUTHORITY.

5-7 Issuing Report and Obtaining Acknowledgment of Receipt

Subparts

5-701 Inspection Conclusion

5-702 Resuming Operations

5-701 Inspection Conclusion

5-701.1 At the conclusion of the inspection, the HEALTH AUTHORITY shall:

(A) Review a copy of the completed inspection report, and any corresponding notice to correct violations with the PERMIT HOLDER or the facility representative; and

(B) Obtain a signed acknowledgement of receipt on the report. If an electronic report, the acknowledgement may be by other means.

5-701.2 Refusal to Sign Acknowledgement

(A) Should the PERMIT HOLDER or facility representative refuse to sign the acknowledgment, the HEALTH AUTHORITY shall inform the refusing party that:

(1) Refusal to sign an acknowledgment does not nullify the inspection report or the PERMIT HOLDER'S obligation to correct the violations noted in the inspection report within the time frames specified, and

(2) An acknowledgment of receipt does not constitute an agreement with findings.

(B) The refusal will be documented on the report and placed in the AQUATIC VENUE'S file.

(C) Provide a copy of the inspection report to the PERMIT HOLDER or facility representative.

5-702 Resuming Operations

5-702.1 If operations are discontinued pursuant to Section 5 herein, as the PERMIT HOLDER shall obtain approval from the HEALTH AUTHORITY before resuming operations.

5-702.2 Prior to opening for use, the QUALIFIED OPERATOR shall demonstrate to the HEALTH AUTHORITY any IMMINENT HEALTH HAZARDS have been corrected.

5-702.3 Facilities documented by the HEALTH AUTHORITY to be operating under conditions of an IMMINENT HEALTH HAZARD and issued an immediate closure, shall pay applicable fees and pass a reopening inspection with no additional closure violations remaining.

5-8 Summary Suspension, Reinstatement and Revocation

Subparts

5-801	Summary Suspension, Reinstatement of Suspended Permit
5-802	Suspension and Revocation

5-801 Summary Suspension Reinstatement of Suspended Permit

5-801.1 The HEALTH AUTHORITY may suspend PERMITS for failure of the PERMIT HOLDER to comply with the requirements of these Regulations.

5-801.2 If conditions exist at an AQUATIC VENUE which presents an IMMINENT HEALTH HAZARD, the HEALTH AUTHORITY may, upon written notice, immediately suspend the operating PERMIT and order the immediate closure of the AQUATIC VENUE.

5-801.3 The suspension shall be effective upon receipt of the written notice by the RESPONSIBLE PERSON, QUALIFIED OPERATOR, or other person in charge. The order of suspension statement on the inspection report constitutes written notice.

5-801.4 The order of suspension must include the following statements:

(A) The PERMIT is immediately suspended and all operations shall be immediately discontinued;

(B) The reasons for summary suspension with specific reference to NRS Chapter 444 and these Regulations;

(C) The type of imminent threat to public health that caused the violation;

(D) The person to whom a request for re-inspection may be made;

(E) The PERMIT holder may request a hearing within five (5) business days of the summary suspension.

5-801.5 THE HEALTH AUTHORITY shall conduct a re-inspection of the AQUATIC FACILITY or AQUATIC VENUE for which the permit was summarily suspended within two (2) business day after receiving notice from the PERMIT holder stating that the conditions cited in the summary suspension order no longer exist.

5-802 Suspension and Revocation

5-802.1 The PERMIT HOLDER may request a hearing within five (5) business days of the summary suspension.

5-802.2 The HEALTH AUTHORITY shall hold a hearing, if requested, within ten (10) business days of receipt of the request for hearing.

5-802.3 The HEALTH AUTHORITY will permanently revoke a PERMIT, unless a request for a hearing is filed with the HEALTH AUTHORITY by PERMIT HOLDER within five (5) business days.

5-802.4 The HEALTH AUTHORITY may, after a hearing, suspend or revoke an AQUATIC FACILITY or AQUATIC VENUE PERMIT for violation of NRS Chapter 444, these Regulations, or an order issued by the HEALTH AUTHORITY.

5-802.5 Unless a hearing is requested as required herein, the suspension or revocation order shall take effect 15 calendar days after the date of issuance of the notice of suspension or revocation.

5-802.6 A notice of suspension or revocation must include the following:

(A) The reasons for the suspension or revocation with reference to the specific provisions of NRS Chapter 444, and these Regulations.

(B) The AQUATIC FACILITY has a right to request a hearing within 15 calendar days after issuance of the notice;

(C) The PERMIT shall be suspended or revoked fifteen (15) calendar days after receipt of the suspension or revocation notice and all operations shall cease at that time unless a hearing is requested.

5-9 Suspension or Revocation of Qualified Operator or Pool Company Registration

5-901 The HEALTH AUTHORITY may suspend or revoke the registration of a POOL COMPANY or QUALIFIED OPERATOR if work of the company or QUALIFIED OPERATOR is performed in such a manner as to create on-going or egregious unsanitary, unsafe, or unhealthful conditions.

5-902 A POOL COMPANY or QUALIFIED OPERATOR may request a hearing within five (5) business days of the summary suspension.

5-903 The HEALTH AUTHORITY shall hold a hearing, if requested, within ten (10) business days of the receipt of the request for hearing.

5-904 The HEALTH AUTHORITY will permanently revoke a POOL COMPANY or QUALIFIED OPERATOR registration, unless a request for a hearing is filled with the HEALTH AUTHORITY by the POOL COMPANY or QUALIFIED OPERATOR within five (5) business days.

5-905 The HEALTH AUTHORITY may, after a hearing, suspend or revoke a POOL COMPANY or QUALIFIED OPERATOR for violation of NRS Chapter 444, these Regulations, or an order issued by the HEALTH AUTHORITY.

5-906 Unless a hearing is requested as required herein, the suspension or revocation order shall take effect 15 calendar days after the date of issuance of the notice of suspension or revocation.

5-907 A notice of suspension or revocation must include the following:

- **5-907.1** The reasons for the suspension or revocation with reference to the specific provisions of NRS Chapter 444 and these Regulations;
- **5-907.2** The POOL COMPANY or QUALIFIED OPERATOR has a right to request a hearing within 15 calendar days after issuance of the notice;
- **5-907.3** The registration shall be suspended or revoked fifteen (15) calendar days after receipt of the suspension or revocation notice and all operations shall cease at that time unless a hearing is requested.

5-10 Notice and Service of Notice

5-1001 A notice issued in accordance with these Regulations is considered properly served if it is served by one of the following methods:

- **5-1001.1** The notice is personally served by the HEALTH AUTHORITY to the QUALIFIED OPERATOR or RESPONSIBLE PERSON or the person in charge; and/or
- **5-1001.2** Sending the notice by registered or certified mail, return receipt requested, to the last known address of the AQUATIC FACILITY OWNER.
- **5-1001.3** The HEALTH AUTHORITY shall file a copy of the notice in the PERMIT holder's file.

5-1002 Reinstatement

5-1002.1 When a PERMIT has been suspended or revoked, an application may be made for reinstatement. Such application must include a verified statement declaring that the reason for the suspension or revocation of the PERMIT has been eliminated.

5-1002.2 If upon investigation by the HEALTH AUTHORITY, it is determined that all reasons for suspension or revocation have been eliminated and all provisions of these Regulations have been complied with, the HEALTH AUTHORITY shall reinstate said PERMIT.

5-1003 Post Revocation Action

Once the PERMIT has been suspended or revoked, as specified in Section 5-8 of these Regulations, the PERMIT holder shall discontinue all activity associated with the AQUATIC VENUE(s) in question. Failure to do so may result in the HEALTH AUTHORITY requesting an injunction from the District Court of Jurisdiction against continued operation by the PERMIT HOLDER.

5-1004 Hearings and Appeals

5-1004.1 All hearings provided for in these Regulations shall be conducted in accordance with the Nevada Administrative Practice Act, NRS Chapter 233B and Health Authority Hearing Officer Regulations.

5-1004.2 Nothing herein contained shall be construed as denying the rights of appeal to the courts after administrative remedies as herein above have been exhausted.

5-11 Abandonment Process

5-1101 To remove an AQUATIC VENUE from regulatory oversight and have the associated HEALTH PERMIT deleted, all equipment associated with the circulation system must be removed and piping appropriately capped in addition to one of the following:

5-1101.1 The AQUATIC VENUE shell may be left in place provided it has been punctured to prevent the accumulation of water, an adequate BARRIER is in place and locked, and must be maintained clean, drained, and free of nuisance conditions;

5-1101.2 The AQUATIC VENUE is filled with gravel or other fill, the shell perforated to prevent water saturation and subsequent nuisance issues allowing for the BARRIER to be removed; or

5-1101.3 The AQUATIC VENUE shell is demolished and removed allowing for the BARRIER to then be removed.

5-12 Public Information

The HEALTH AUTHORITY shall treat the inspection report as a public document and shall make it available for disclosure pursuant to NRS Chapter 239.

5-13 Severability Clause

Should any section, paragraph, sentence, clause, or phrase of these Regulations be declared unconstitutional or invalid for any reason the remainder of these Regulations shall not be affected thereby.

ATTACHMENT

B

BUSINESS IMPACT STATEMENT
Adoption of the proposed
AQUATIC FACILITY REGULATIONS

The Southern Nevada Health District (SNHD) staff will present before the District Board of Health a petition to adopt proposed Aquatic Facility regulations to replace the current *Regulations Governing Public Bathing Places Public Spas,* Nevada Administrative Code Chapter 444, sections 010 through 546, as adopted by the State Board of Health on January 16, 1996. This Business Impact Statement serves as an analysis to determine the impact the proposed regulations will have on business.

As required by NRS 233B.0609, this statement sets forth the following information:

1. The manner in which comment was solicited from affected businesses:

    a. Public Workshops regarding the Adoption of new Aquatic Facility Regulations were held on October 17th and 20th, and November 18th and 28th, 2016 at the Southern Nevada Health District (SNHD) Public Health Center. The public notices for the workshops as well as for the proposed regulations were duly posted on the SNHD website, in the SNHD main office, and in the main offices of local municipalities and Clark County, which provided the date and time of the Public Hearing and Public Workshops.

    At the request of board members, a copy of the business impact survey was sent to the mailing address of each facility with a permitted body of water, as well as the billing address of each certified pool company. The survey contained a web address to the SNHD Public Notices page, which had a link to an online version of the survey. The survey could be filled out on paper and mailed back to SNHD, returned in person, or completed online. A total of 2,122 surveys were mailed. SNHD received 174 completed online surveys, approximately 50 via email, and 261 were returned via mail or dropped off in person.

    A properly-noticed public meeting was held on April 27th to take additional comment from affected persons regarding the impact of the regulations on businesses. An audio recording of the meeting is available for review.

2. The manner in which the analysis was conducted:

    a. The comments received, in addition to the survey responses, were analyzed by the SNHD staff. In addition, every section of the proposed regulation was also analyzed. Any sections of the regulation which would impose a direct and significant economic burden upon business, or which would directly restrict the formation, operation or expansion of a business was included in the analysis. Any input received from businesses from the survey was reviewed and considered in the methods to reduce impact on businesses.

3. The majority of the comments received in response to the survey were from members of home owners associations or employees of apartment communities. A large focus was related to provisions in the proposed regulation draft requiring the addition of automated controllers and associated equipment for all existing and new facilities. In response to the overwhelming concern related to required modifications on existing facilities with regard to the addition of automated chemical feeding systems, SNHD removed the requirement for facilities already in existence.

    Another provision which received a number of comments was the requirement to gradually phase out the use of cyanuric acid in aquatic venues over a specified period of time, which would result in most existing facilities needing to replace existing equipment. As such, SNHD removed this requirement as well.

    SNHD also received comments regarding whether or not HOA pools should be subject to regulations governing public bathing places/public pools. As defined in NAC 444 and NRS 444, aquatic venues at HOAs are not excluded from the public swimming pool definition. As such, deregulation cannot be a consideration of this impact statement or the proposed regulations.

    The Estimated economic effect of the proposed regulations on the businesses which it is to regulate, including, without limitation, both adverse and beneficial effects and both direct and indirect effects:

    Adverse Effects:

    - All pedestrian doors around the INDOOR AQUATIC FACILITY perimeter shall be equipped with an automatic door closer capable of closing the door completely without human assistance against the specified difference in air pressure between the INDOOR AQUATIC FACILITY and other INTERIOR SPACES.

- Depth markers shall also be located on the POOL coping or DECK within 18 inches of the POOL structural wall or perimeter gutter. Existing AQUATIC VENUES must meet this requirement within two (2) years from the adoption of these Regulations.
- Depth markers shall be marked in units of feet and inches.
- For POOL water depths five (5) feet (*1.5 m*) or less, all required DECK depth markers shall be provided with "NO DIVING" warning signs along with the universal international symbol for "NO DIVING." Existing AQUATIC VENUES must meet this requirement within two (2) years from the implementation of these Regulations.
- "NO DIVING" warning signs and symbols shall be spaced at no more than 25 foot intervals around the POOL perimeter edge.
- Artificial lighting shall be provided at all AQUATIC VENUES.
- Suction and supply POOL piping shall be subjected to a static hydraulic water pressure test for the duration specified by an engineer and/or the HEALTH AUTHORITY.
- All gauges shall be equipped with valves to allow for servicing under operating conditions.
- A flow meter accurate to within +/- 5 percent of the actual design flow shall be provided for each filtration system. When a VFD (Variable Frequency Drive) is in use a flow meter must be accurate to within +/- 2 percent.
- All pumps shall be installed with a manual adjustable discharge valve to provide a backup means of flow control as well as for system isolation.
- The system flow rate shall not be reduced more than 50 percent lower than the minimum design requirements and only reduced when the AQUATIC VENUE is closed.
- A physical BARRIER shall be installed between chemical feed pumps supplying acid or liquid hypochlorite solution and other POOL components to shield staff and equipment from chemical sprays and leaking connections.
- The new construction or SUBSTANTIAL ALTERATION of the following INCREASED RISK AQUATIC VENUES shall be required to use a SECONDARY DISINFECTION SYSTEM after adoption of these Regulations.
- Where provided, permanently installed chairs/stands, where LIFEGUARDS can be exposed to UV radiation, shall include protection from such UV radiation exposure.
- EQUIPMENT ROOMS or areas shall be lighted to provide 30 FOOT CANDLES *(323 lux)* of illumination at floor level.
- A water-resistant, easily-read, wall-mounted piping diagram shall be furnished and installed inside the EQUIPMENT ROOM.

- Combustion equipment, air-handling equipment, and electrical equipment shall not be exposed to air contaminated with corrosive chemical vapors.
- Doors between an EQUIPMENT ROOM and an INDOOR AQUATIC FACILITY shall be equipped with an automatic closer. The door, frame, and automatic closer shall be installed and maintained to ensure that the door closes completely, latches, and locks without human assistance.
- Equipment may be installed in an outdoor ENCLOSURE provided the following conditions are met:
    - **(a)** Equipment must be securely installed on level concrete pads.
    - **(b)** Exposed plumbing must be protected from UV.
    - **(c)** Overhead UV protection must be provided.
    - **(d)** Unpaved areas within the ENCLOSURE shall be graded to allow for proper drainage with suitable ground cover to prevent the generation of mud in areas between equipment.
- Equipment installed below grade shall be equipped with stairs and an associated handrail that meets applicable building code standards.
- At least one space dedicated to CHEMICAL STORAGE SPACE shall be provided to allow safe STORAGE of the chemicals present.
- Exterior CHEMICAL STORAGE SPACES shall be equipped with overhead UV protection.
- A minimum of four (4) showerheads per 50 feet of beach entry AQUATIC VENUES shall be provided as a RINSE SHOWER located not more than 30 feet from the AQUATIC VENUE or queuing area.
- A minimum of one RINSE SHOWER shall be provided at each entrance to a LAZY RIVER AQUATIC VENUE.
- A minimum of one RINSE SHOWER shall be provided at each entrance to a WATERSLIDE queue line.
- In female HYGIENE FACILITIES, covered receptacles adjacent to each toilet shall be provided for disposal of used feminine hygiene products
- Wastewater from an AQUATIC VENUE, including filter backwash water, shall be discharged indirectly, via a sump pit through an air-gap to a sanitary sewer system having sufficient capacity to collect and treat wastewater.
- Water samples (for a natural bathing place) shall be submitted to a state-licensed laboratory each week. Such samples must meet the following criteria: E. coli at a geometric of 126 CFU per 100 mL and an STV (single test value) of 410 CFU per 100 mL measured using EPA Method 1603, or any other equivalent method that measures E. coli.
- Signage must be posted in the immediate vicinity (of a deluge shower) declaring that the SHOWER utilizes re-circulated water.
- A written comprehensive preventive maintenance plan for each AQUATIC VENUE shall be available at the AQUATIC FACILITY.

- A comprehensive inventory of all mechanical equipment associated with each AQUATIC VENUE shall be available at the AQUATIC FACILITY.
- All components of the filtration and RECIRCULATION SYSTEMS shall be kept in continuous operation 24 hours per day.
- Cyanuric Acid (CYA) or stabilized CHLORINE products shall not be used at the following for all new construction, SUBSTANTIAL ALTERATION, or DISINFECTION equipment replacements after the effective date of these Regulations:
    - SPAS; and
    - THERAPY POOLS.
- FAC or bromine, and pH shall be tested at all AQUATIC VENUES prior to opening each day or at least once every 24 hours at evenly spaced intervals when the AQUATIC VENUE remains open 24 hours a day.
- For all AQUATIC VENUES not associated with residential living units, the FAC (or bromine) and pH shall be tested prior to opening and every four (4) hours while accessible to BATHERS.
- Total Alkalinity (TA) and combined available chlorine shall be tested weekly at all AQUATIC VENUES.
- CYA shall be tested monthly at all AQUATIC VENUES utilizing CYA.
- If AQUATIC VENUES utilize stabilized CHLORINE as its primary disinfectant, the operator shall test CYA every week.
- Where provided, permanently installed chairs/stands, where LIFEGUARDS can be exposed to ultraviolet radiation, shall include protection from such ultraviolet radiation exposure.
- All QUALIFIED OPERATORS currently registered with the HEALTH AUTHORITY shall obtain proof of national certification from a recognized testing entity at the time of their registration renewal within three years from the adoption of these Regulations. Registrations will expire in conjunction with the national certification date and must be renewed prior to expiration.
- QUALIFIED OPERATORS SHALL MONITOR THE POOL WEEKLY during the off season, a minimum of three (3) times per week during the peak season, or more as necessary to maintain compliance with these Regulations.
- All AQUATIC FACILITIES without a full time on-site QUALIFIED OPERATOR shall have a designated on-site RESPONSIBLE PERSON.
- Any POOL ENCLOSURE with a cumulative unsupervised POOL surface area of 4000 square feet or more (lifeguard requirements)
- All AQUATIC FACILITIES shall create and implement a SAFETY PLAN to include, but not be limited to the following elements:
    - Staffing Plan,
    - EMERGENCY ACTION PLAN,

    - Biohazard action plan,
    - Pre-Service Training Plan, and
    - In-service Training Plan
- AQUATIC FACILITIES that are required to have two or more LIFEGUARDS per the Lifeguard Staffing Plan's zone of BATHER surveillance responsibility in Section 4-303.2 shall have at least one PERSON located at the AQUATIC FACILITY during operation designated as the LIFEGUARD SUPERVISOR who meets the requirement of Section 4-202.
- AQUATIC FACILITIES with required LIFEGUARD staff shall create and maintain an operating procedure manual containing information on the emergency response and communications plan including an EAP, Facility Evacuation Plan, and Inclement Weather Plan.
- A written Facility Evacuation Plan shall be developed and maintained for the AQUATIC FACILITY.
- Each AQUATIC FACILITY shall develop an operations manual to keep at the AQUATIC FACILITY in either a printed or electronic format that is readily available for review during inspection.
- The QUALIFIED OPERATOR or RESPONSIBLE PERSON shall ensure a daily AQUATIC FACILITY preventive maintenance inspection is done before opening.
- A Body Fluid Contamination Response Log shall be maintained to document each occurrence of contamination of the water or its immediately adjacent areas by formed or diarrheal fecal material, whole stomach discharge of vomit, and blood.
- If construction has not been initiated within one (1) calendar year from the date of plan APPROVAL or if construction halts for one (1) calendar year, the PERMIT may be deleted and require the resubmission of plans and PERMIT application with associated fees prior to resuming construction.
- Unless a QUALIFIED OPERATOR is available onsite all day, keys must be provided to allow access the POOL, pump room, restrooms, SHOWER, and any other related areas.

Beneficial Affects:

- Facilities associated with lodging units will only be required to provide rinse showers, instead of both rinse and cleansing showers. A rinse shower is not required to provide hot water or soap for the bathers, which eliminates the need for heating units for showers at many facilities.
- The waiver process outlined in the proposed regulation may eliminate the need for applying for a variance if a permit holder wishes to

deviate from the regulation, provided staff determines that no detriment to public health would ensue.

- The proposed regulation allows applicants to submit fewer copies – and electronic copies – of plans with new construction and substantial alteration applications, which will reduce the costs of application submittal.

4. A description of the methods that the agency considered to reduce the impact of the proposed regulation on businesses and a statement regarding whether the agency actually used any of those methods:

    a. One of the concerns brought up from the comment/survey period was that the increased equipment costs could result in the closure of many pools, as many existing facilities could not afford the initial expense of the equipment, or the increased maintenance costs, if any.

    SNHD reached out to various local contractors to get cost estimates for the installation and maintenance of automated controllers and associated feed equipment. The costs varied depending on the setup, but can range from $2,500 to upwards of $12,000 for installation. Routine maintenance can add an estimated $150 to $400 per month, depending on the services performed.

    Based on the comments received from the public, as well as the information provided, SNHD has removed the requirement for automation on all existing facilities; instead the requirement will only apply to new construction. There currently exists a provision in NAC 444.182 which requires equipment for the feeding of chemicals to maintain required pH if the facility is unable to adequately maintain the pH of the water. This has been added to the proposed regulation, and expanded to include equipment for maintaining a disinfectant residual.

    The requirement to phase out cyanuric acid has also been removed, meaning that existing facilities provided that they are able to adequately maintain water chemistry, will not have to replace existing equipment.

    A requirement in the proposed draft to include a set of spare filter cartridges on site for facilities with cartridge filters has been removed.

5. The estimated cost to the agency for enforcement of the proposed regulation:

    a. The estimated cost to the district is approximately $8,000 of staff time, due to the division conducting industry training sessions with contractors and

builders, facility managers, management companies, and pool operators.

b. The postage for the business impact surveys totaled approximately $340, not including printing costs.

6. If the proposed regulation provides a new fee or increases an existing fee, the total annual amount the agency expects to collect and the manner in which the money will be used:

   a. No new fees are set forth in the proposed regulation.

7. If the proposed regulation includes provisions which duplicate or are more stringent than federal, state or local standards regulating the same activity, an explanation of why such duplicative or more stringent provisions are necessary:

   a. Nevada Revised Statute (NRS) 439.200(1) states that "The State Board of Health may by affirmative vote of a majority of its members adopt, amend and enforce reasonable regulations consistent with law." NRS 439.200(2) states that:

      > "Except as otherwise provided in NRS 444.650, those regulations have the effect of law and supersede all local ordinances and regulations inconsistent therewith, except those local ordinances and regulations which are more stringent than the regulations provided for in this section."

      The proposed regulation, which replaces NAC 444.010-546, will be a local regulation and therefore will be more stringent than the regulation it supersedes.

8. The reasons for the conclusions of the agency regarding the impact of a regulation on businesses:

   a. The proposed regulation and associated comments were thoroughly examined, and any changes included in the regulation which would impose a direct and significant economic burden upon a business, or which would directly restrict the formation, operation or expansion of a business was included in the analysis. The division solicited responses from businesses through a survey mailed to permit holders, pool companies, as well as posted alongside the public notice for the public workshops. The division also solicited industry feedback during the regulation writing process in 2015 through industry workgroup meetings. Any feedback provided from previous workshops or meetings was considered during the preparation of this impact statement.

I, Jacqueline L. Reszetar, certify that, to the best of my knowledge or belief, the information contained in the statement was prepared properly and is accurate:

Jacqueline L. Reszetar, REHS
Director of Environmental Health

June 5th, 2017
Date

ATTACHMENT

C

SOUTHERN NEVADA HEALTH DISTRICT
AQUATIC FACILITY REGULATIONS

Adopted_____date_____

SNHD
Southern Nevada Health District

Southern Nevada Health District
PO Box 3902
Las Vegas, NV 89127
(702) 759-1000
www.SNHD.info

SOUTHERN NEVADA HEALTH DISTRICT
AQUATIC FACILITY REGULATIONS

PREAMBLE

WHEREAS, the Southern Nevada Health District is a public health authority organized pursuant to Nevada Revised Statutes, Chapter 439 with jurisdiction over all public health matters within Clark County, Nevada; and

WHEREAS, the Southern Nevada District Board of Health (Board) is the Southern Nevada Health District's governing body, and is authorized to adopt regulations to protect and promote public health and safety in the interest of public health in the geographical area subject to its jurisdiction; and

WHEREAS, in accordance with the authority granted pursuant to Nevada Revised Statutes Chapter 439 and Chapter 444, the Board hereby adopts regulations to attain uniform, minimum standards for the operation and maintenance of public swimming pools, spas, natural bathing places, and other public aquatic venues and facilities in Clark County, Nevada, and to assure a clean, healthful, and safe environment for all bathers using these pools; and

WHEREAS, these Regulations in no way preclude a facility from establishing additional rules and operating procedures as long as they do not contradict those established herein.

WHEREAS, the Board does therefore publish, promulgate and order compliance within Clark County, Nevada with the substantive and procedural requirements hereinafter set forth.

AQUATIC FACILITIES REGULATION

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1-1 Acronyms and Initialisms

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1-101 Acronyms and Initialisms

Acronym/ Initialism	Meaning
AED	Automated External Defibrillator
ANSI	American National Standards Institute
ASTM	American Society for Testing and Materials
CDC	Centers for Disease Control and Prevention
CPSC	Consumer Product Safety Commission
CYA	Cyanuric Acid
DVGW	Deutscher Verein des Gas- und Wasserfaches e.V. – Technisch wissenschaftlicher Verein (German Technical and Scientific Association for Gas and Water)
GPM	Gallons Per Minute
MAHC	Model Aquatic Health Code
NCAA	National Collegiate Athletic Association
NEC	National Electrical Code
NRTL	Nationally Recognized Testing Laboratory
NSF	National Sanitation Foundation
OEM	Original Equipment Manufacturer
ÖNORM	Österreichisches Normungsinstitut (Austrian Standards Institute)
OSHA	Occupational Safety and Health Administration
PPE	Personal Protective Equipment
PPM	Parts Per Million
PVC	Polyvinyl Chloride
PVC-P	Plasticized Polyvinyl Chloride
RPZ	Reduced Pressure Zone
RWI	Recreational Water Illness
SDS	Safety Data Sheet
TDH	Total Dynamic Head
TDS	Total Dissolved Solids
UL	Underwriter Laboratories
VFD	Variable Frequency Drive

1-2 Definitions

Subpart
1-201 Glossary Terms

1-201 Glossary Terms

"ACTIVITY POOL" see **"POOL"**

"AGITATED WATER" see **"THEORETICAL PEAK OCCUPANCY"**

"AIR HANDLING SYSTEM" means equipment that brings outdoor air into a building and removes air from a building for the purpose of introducing air with fewer contaminants and removing air with contaminants created while BATHERS are using AQUATIC VENUES. The system contains components that move and condition the air for temperature, humidity, and pressure control, and transport and distribute the air to prevent condensation, corrosion, and stratification, provide acceptable indoor air quality, and deliver outside air to the breathing zone.

"APPROVED" means acceptable to the HEALTH AUTHORITY based on compliance with the law, conformance with appropriate, accepted, or recognized industry standards and good public health practice.

"AQUATIC FACILITY" means a physical place that contains one or more AQUATIC VENUES and support infrastructure.

- **"INDOOR AQUATIC FACILITY"** means a physical place that contains one or more AQUATIC VENUES and the surrounding BATHER and SPECTATOR/STADIUM SEATING areas within a structure that meets the definition of "building" per the 2012 International Building Code. It does not include equipment, chemical storage, or BATHER hygiene rooms or any other rooms with a direct opening to the AQUATIC FACILITY.

"AQUATIC FEATURE" means an individual component within an AQUATIC VENUE. Examples include SLIDES, structures designed to be climbed or walked across, and structures that create falling or shooting water.

"AQUATIC VENUE" means an artificially constructed structure or modified natural structure where the general public is exposed to water intended for recreational or therapeutic purpose. Such structures do not necessarily contain standing water, so water exposure may occur via contact, ingestion, or aerosolization.

- **"INCREASED RISK AQUATIC VENUE"** means an AQUATIC VENUE which, due to its intrinsic characteristics and intended use has a greater likelihood of affecting the BATHERS of that venue by being at increased risk for microbial contamination (e.g., by children less than five (5) years old) or being used by people that may be more susceptible to infection (e.g., therapy patients with open wounds). Examples of INCREASED-RISK AQUATIC VENUES include spray pads, WADING POOLS, CHILD AMUSEMENT LAGOONS, and other AQUATIC VENUES designed for children less than five (5) years old as well as THERAPY POOLS.
- **"INTERACTIVE WATER PLAY AQUATIC VENUE"** means any indoor or outdoor installation that includes sprayed, jetted or other water sources contacting BATHERS and not incorporating standing or captured water as part of the BATHER activity area. These AQUATIC VENUES are also known as splash pads or spray pads. For the purposes of

these Regulations only those designed to recirculate water and intended for public use and recreation shall be regulated.

- **"LAZY RIVER"** means a channeled flow of water of near constant depth in which the water is moved by pumps or other means of propulsion to provide a river like flow that transports BATHERS over a defined path. A LAZY RIVER may include AQUATIC FEATURES and devices. A LAZY RIVER may also be referred to as a tubing POOL, leisure river, leisure POOL or a current channel.
- **"SPA"** means a structure intended for either warm or cold water where prolonged exposure is not intended. SPA structures are intended to be used for bathing *or other* recreational uses and are not drained and refilled after each use. It may include hydrotherapy jets and air induction bubbles.
- **"SPECIAL USE AQUATIC VENUE"** means AQUATIC VENUES that do not meet the intended use and design features of any other AQUATIC VENUE or POOL listed/identified in these Regulations.

"ARTIFICIAL SWIMMING LAGOON" means an artificial body of water with more than 10,000 square feet of water surface area that is intended to be used by persons for swimming or bathing and that is constructed with special features to imitate a NATURAL BATHING PLACE.

"ATTENDANT" means an employee who monitors and controls the flow of BATHERS at the entrance and exits of aquatic attractions such as WAVE POOLS, LAZY RIVERS, SLIDES and FLUMES.

"AUTOMATED CONTROLLER" means a system of at least one chemical probe, a controller, and an auxiliary or integrated component that senses the level of one or more water parameters and provides a signal to other equipment to maintain the parameters within a user-established range.

"AVAILABLE CHLORINE" see **"CHLORINE"**

"BACKFLOW" means a hydraulic condition caused by a difference in water pressure that causes an undesirable reversal of the flow as the result of a higher pressure in the system than in its supply.

"BARRIER" means an obstacle intended to prevent direct access from one point to another.

"BATHER" means a person at an AQUATIC VENUE who has the potential of entering the body of water.

"BATHER COUNT" means the number of BATHERS in an AQUATIC VENUE at any given time.

"BATHER OCCUPANCY" means the total number of BATHERS in an AQUATIC FACILITY ENCLOSURE at any given time both in the water and on the DECK.

"BREAKPOINT CHLORINATION" means the conversion of inorganic CHLORAMINE compounds to nitrogen gas by reaction with FAC. When CHLORINE is added to water containing ammonia (from urine, sweat, or the environment), it initially reacts with the ammonia to form monochloramine. If more CHLORINE is added, monochloramine is converted into DICHLORAMINE, which decomposes into nitrogen gas, hydrochloric acid and CHLORINE. The apparent residual CHLORINE decreases since it is partially reduced to hydrochloric acid. The point at which the drop occurs is referred to as the "breakpoint." The amount of free CHLORINE that must be added to the water to achieve BREAKPOINT CHLORINATION is approximately ten times the amount of combined CHLORINE in the

water. As additional CHLORINE is added, all inorganic combined CHLORINE compounds disappear, resulting in a decrease in eye irritation potential and CHLORINE odors.

"BULKHEADS" means a movable partition that physically separates an AQUATIC VENUE into multiple sections.

"CHEMICAL STORAGE SPACE" means a space in an AQUATIC FACILITY used for the storage of AQUATIC VENUE chemicals such as acids, salt, or corrosive or oxidizing chemicals.

"CHILD AMUSEMENT LAGOON" see **"POOL"**

"CHLORAMINE" means a DISINFECTION BY-PRODUCT formed when CHLORINE binds to nitrogenous waste in AQUATIC VENUE water to form an amine-containing compound with one or more CHLORINE atoms, known as combined CHLORINE.

- **"DICHLORAMINE"** means a DISINFECTION BY-PRODUCT formed when CHLORINE binds to nitrogenous waste in AQUATIC VENUE water to form an amine-containing compound with two CHLORINE atoms ($NHCl_2$). It is a known acute respiratory and ocular irritant.
- **"TRICHLORAMINE"** means a DISINFECTION BY-PRODUCT formed when CHLORINE binds to nitrogenous waste in AQUATIC VENUE water to form an amine-containing compound with three CHLORINE atoms (NCl_3). It is a known acute respiratory and ocular irritant. It has low solubility in water and is rapidly released into the air above AQUATIC VENUES where it can accumulate, particularly in indoor settings.

"CHLORINE" refers to hypochlorous acid and hypochlorite ion in aqueous solution derived from CHLORINE gas or a variety of CHLORINE-based disinfecting agents.

- **"AVAILABLE CHLORINE"** means the amount of CHLORINE in the +1 OXIDATION state, which is the reactive or oxidized form. In contrast, a chloride ion (Cl^-) is in the -1 OXIDATION state, which is the inert or reduced state. AVAILABLE CHLORINE is subdivided into FAC and combined AVAILABLE CHLORINE. AQUATIC VENUE chemicals containing AVAILABLE CHLORINE are both oxidizers and DISINFECTANTS. Elemental CHLORINE (Cl_2) is defined as containing 100 percent AVAILABLE CHLORINE. The concentration of AVAILABLE CHLORINE in water is normally reported as PPM "as Cl_2", that is, the concentration is measured on a Cl_2 basis, regardless of the source of the AVAILABLE CHLORINE.
- **"FREE AVAILABLE CHLORINE or FAC"** means the portion of the total AVAILABLE CHLORINE that is not "combined CHLORINE" and is present as hypochlorous acid (HOCl) or hypochlorite ion (OCl^-). The PH of the water determines the relative amounts of hypochlorous acid and hypochlorite ions. HOCl is a very effective bactericide and is the active bactericide in POOL water. OCl^- is also a bactericide, but acts more slowly than HOCl. Thus, CHLORINE is a more effective bactericide at low PH than at high PH. A FAC must be maintained for adequate DISINFECTION.

"CLEANSING SHOWER" see **"SHOWER"**

"COMBUSTION DEVICE" means any appliance or equipment using fire such as gas or oil furnaces, boilers, POOL heaters, domestic water heaters, etc.

"CONTAMINATION RESPONSE PLAN" means a plan for handling contamination from formed-stool, diarrheal-stool, vomit, and blood.

"CROSS-CONNECTION" means a connection or arrangement, physical or otherwise, between a potable water supply system and a PLUMBING FIXTURE, tank, receptor, equipment, or device, through which it may be possible for non-potable, used, unclean, polluted and contaminated water, or other substances to enter into a part of such potable water system under any condition.

"CT VALUE" means a representation of the concentration of the disinfectant (C) multiplied by time in minutes (T) needed for inactivation of a particular contaminant. The concentration and time are inversely proportional; therefore, the higher the concentration of the disinfectant, the shorter the contact time required for inactivation. The CT VALUE can vary with PH or temperature change so these values must also be supplied to allow comparison between values.

"DECK" means surface areas serving the AQUATIC VENUE, including the PERIMETER DECK, POOL DECK, and DRY DECK.

- **"DRY DECK"** means all pedestrian surface areas within the AQUATIC VENUE ENCLOSURE not subject to frequent splashing or constant wet foot traffic. The DRY DECK is not PERIMETER DECK or POOL DECK, which connect the AQUATIC VENUE to adjacent amenities, entrances, and exits. Landscape areas are not included in this definition.
- **"PERIMETER DECK"** means the hardscape surface area immediately adjacent to and within four (4) feet of the edge of the AQUATIC VENUE.
- **"POOL DECK"** means surface areas serving the AQUATIC VENUE, beyond PERIMETER DECK, which is expected to be regularly trafficked and made wet by BATHERS.

"DEEP WATER" means any part of an AQUATIC VENUE with a depth greater than five (5) feet.

"DESIGN PROFESSIONAL" means a Nevada licensed professional engineer or a Nevada registered architect. A licensed professional engineer or a registered architect shall include his or her seal and signature on any plans and specifications submitted to the HEALTH AUTHORITY.

"DESIGNATED WALKWAY" means an exterior or interior way of passage from one part of an AQUATIC FACILITY to another for pedestrians, including, but not limited to walkways, pathways, DECKS, and stairways.

"DICHLORAMINE" see **"CHLORAMINE"**

"DISINFECTION" means a treatment that kills or irreversibly inactivates microorganisms (e.g., bacteria, viruses, and parasites); in water treatment, a chemical (commonly CHLORINE, CHLORAMINE, or ozone) or physical process (e.g., UV radiation) can be used.

"DISINFECTION BY-PRODUCT" means a chemical compound formed by the reaction of a disinfectant (e.g. CHLORINE) with a precursor (e.g. natural organic matter, nitrogenous waste from BATHERS) in a water system (AQUATIC VENUE and water supply).

"DIVING POOL" see **"POOL"**

"DROP SLIDE" see **"SLIDE"**

"DRY DECK" see **"DECK"**

"EMERGENCY ACTION PLAN or EAP" means a plan that identifies the objectives that need to be met for a specific type of emergency, who will respond, what each person's role will be during the response, and what equipment is required as part of the response.

"ENCLOSURE" means an uninterrupted constructed feature or obstacle used to surround and secure an area that is intended to deter or effectively prevent unpermitted, uncontrolled, and unfettered access to an AQUATIC VENUE or FACILITY. It is designed to resist climbing (absence of handholds or footholds) and to prevent passage through it and under it.

"EPA REGISTERED" means all products regulated and registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) by the U.S. Environmental Protection Agency. EPA REGISTERED products will have a registration number on the label (usually it will state "EPA Reg No." followed by a series of numbers). This registration number can be verified by using the EPA National Pesticide Information Retrieval System.

"EQUIPMENT ROOM" means a space intended for the operation of pumps, filters, heaters, and controllers. This space is not intended for the storage of hazardous AQUATIC VENUE chemicals.

"EXIT GATE" means an emergency exit, which is a gate or door allowing free exit at all times.

"EXPANSION JOINT" means a watertight joint provided in an AQUATIC VENUE vessel used to relieve flexural stresses due to movement caused by thermal expansion/contraction.

"FLAT WATER" see **"THEORETICAL PEAK OCCUPANCY"**

"FLUME" means the riding channels of a WATERSLIDE which accommodate riders using or not using mats, tubes, rafts, and other transport vehicles as they slide along a path lubricated by a water flow.

"FOOT CANDLES" means a measurement of light equivalent to one lumen per square foot.

"FREE AVAILABLE CHLORINE or (FAC)" see **"CHLORINE"**

"GROUND-FAULT CIRCUIT INTERRUPTER or (GFCI)" means a device for protection of personnel that de-energizes an electrical circuit or portion thereof in the event of excessive ground current.

"HAND WASH STATION" means a location which has a hand washing sink, adjacent soap dispenser, paper towel dispenser or hand dryer, and trash receptacle.

"HEALTH AUTHORITY" means officers or agents of the Southern Nevada Health District.

"HOT WATER" see **"THEORETICAL PEAK OCCUPANCY"**

"HYGIENE FACILITY" means a structure or part of a structure that contains toilet(s), SHOWER(S), HAND WASH STATION(S), and dressing capabilities serving BATHERS and PATRONS at an AQUATIC FACILITY.

"HYGIENE FIXTURES" means all components necessary for HYGIENE FACILITIES including PLUMBING FIXTURES, HAND WASH STATIONS, trash receptacles, soap dispensers, paper towel dispensers or hand dryers, and toilet paper dispensers.

"**IMMINENT HEALTH HAZARD**" means a serious threat to public health or safety that is considered to exist when there is evidence sufficient to show that a product, practice, circumstance, or event creates a situation that requires immediate correction or cessation of operation to prevent injury based on the number of potential injuries and the nature, severity, and duration of the anticipated injury or illness.

"**INDOOR AQUATIC FACILITY**" see "**AQUATIC FACILITY**"

"**INCREASED RISK AQUATIC VENUE**" see "**AQUATIC VENUE**"

"**INFINITY EDGE**" means a POOL wall structure and adjacent PERIMETER DECK that is designed in such a way where the top of the POOL wall and adjacent DECK are not visible from certain vantage points in the POOL or from the opposite side of the POOL. Water from the POOL flows over the edge and is captured and treated for reuse through the normal POOL filtration system.

"**INLET**" means wall or floor fittings where treated water is returned to the AQUATIC VENUE.

"**INTERACTIVE WATER PLAY AQUATIC VENUE**" see "**AQUATIC VENUE**"

"**INTERIOR SPACE**" means any substantially enclosed space having a roof and having a wall or walls which might reduce the free flow of outdoor air. Ventilation openings, fans, blowers, windows, doors, etc., shall not be construed as allowing free flow of outdoor air.

"**ISLAND**" means a structure inside an AQUATIC VENUE where the perimeter is completely surrounded by water and the top is above the surface of the AQUATIC VENUE.

"**ISOLATION AND FLOTATION UNIT**" means a vessel that provides a light and/ or sound free environment, contains a saturated solution of sodium chloride or magnesium sulfate having a specific gravity of 1.27 to 1.3, and is maintained at a temperature of approximately 93.5°F. It may also be referred to as an isolation tank, pods, or flotation therapy.

"**LANDING POOL**" see "**POOL**"

"**LAZY RIVER**" see "**AQUATIC VENUE**"

"**LIFEGUARD**" means an individual who has successfully completed a recognized LIFEGUARD training course offered by a recognized training agency, holds a current certificate for such training, has met the pre-service requirements, and is participating in continuing in-service training requirements of the AQUATIC FACILITY.

"**LIFEGUARD STATION**" means a designated stand or roving zone established to monitor BATHERS in a body of water.

"**LIFEGUARD SUPERVISOR**" means an individual responsible for the oversight of LIFEGUARD performance and emergency response at an AQUATIC FACILITY.

"**MONITORING**" is the regular and purposeful observation and checking of systems or facilities and recording of data, including system alerts, excursions from acceptable ranges, and other facility issues. MONITORING includes human or electronic means.

"**MOVEABLE FLOORS**" means an AQUATIC VENUE floor whose depth varies through the use of controls.

"NATURAL BATHING PLACE" means any bathing place at a lake, pond, stream or similar body of water, together with any buildings and appurtenances used by the public for bathing or swimming with the express permission of the lessee or any person responsible for the premise; or advertised as a place for bathing or swimming for the public.

"NON-SUBSTANTIAL ALTERATION" means the addition or replacement of all or part of any structure, circulation system or appurtenance of an AQUATIC VENUE that is not addressed under SUBSTANTIAL ALTERATION.

"OOCYST" means the thick-walled, environmentally resistant structure released in the feces of infected animals that serves to transfer the infectious stages of sporozoan parasites (e.g., *Cryptosporidium*) to new hosts.

"OWNER" means any person, individual, partnership, corporation, company, association or like entity that owns, leases, or proposes to own or lease an AQUATIC VENUE or AQUATIC FACILITY.

"OXIDATION" means the process of changing the chemical structure of water contaminants by either increasing the number of oxygen atoms or reducing the number of electrons of the contaminant or other chemical reaction, which allows the contaminant to be more readily removed from the water or made more soluble in the water. It is the "chemical cleaning" of POOL water. OXIDATION can be achieved by common disinfectants (e.g., CHLORINE, bromine), SECONDARY DISINFECTION SYSTEMS (e.g. ozone) and oxidizers (e.g. potassium monopersulfate).

"OXIDATION REDUCTION POTENTIAL or ORP" means a measure of the tendency for a solution to either gain or lose electrons; higher (more positive) OXIDATION REDUCTION POTENTIAL indicates a more oxidative solution.

"PATRON" means a BATHER or other person at an AQUATIC FACILITY who may or may not have contact with AQUATIC VENUE water either through partial or total immersion. PATRONS may not have contact with AQUATIC VENUE water, but could still be exposed to potential contamination from the AQUATIC FACILITY air, surfaces, or aerosols.

"PENINSULA or WING WALL" means a structural projection into a POOL intended to provide separation within the body of water.

"PERIMETER DECK" see **"DECK"**

"PERIMETER GUTTER SYSTEM" means the alternative to SKIMMERS as a method to remove water from the POOL'S surface for treatment. The gutter provides a level structure along the POOL perimeter versus intermittent SKIMMERS.

"PERMIT" means the document issued by the HEALTH AUTHORITY that authorizes a person or authorized agent of the OWNER to operate an AQUATIC VENUE.

"PERMIT HOLDER" means the person or entity that is legally responsible for the operation of the AQUATIC FACILITY.

"PH" means the negative log of the concentration of hydrogen ions. When water ionizes, it produces hydrogen ions (H^+) and hydroxide ions (OH^-). If there is an excess of hydrogen ions the water is acidic. If there is an excess of hydroxide ions the water is basic. PH ranges from 0 to 14. Pure water has a PH of 7.0. If PH is higher than 7.0, the water is said to be basic, or

alkaline. If the water's PH is lower than 7.0, the water is acidic. As PH is raised, more ionization occurs and CHLORINE disinfectants decrease in effectiveness.

"PLUMBING FIXTURE" means a receptacle, fixture, or device that is connected to a water supply system or discharges to a drainage system or both and may be used for the distribution and use of water; e.g. toilets, urinals, SHOWERS, and hose bibs. Such receptacles, fixtures, or devices require a supply of water, discharge liquid waste or liquid-borne solid waste, or require a supply of water and discharge waste to a drainage system.

"POOL" means a subset of AQUATIC VENUES designed to have standing water for total or partial BATHER immersion. This does not include SPAS.

- **"ACTIVITY POOL"** means a water attraction designed primarily for play activity that uses constructed features and devices including pad walks, flotation devices, and similar attractions.
- **"CHILD AMUSEMENT LAGOON"** means a water attraction designed primarily for play activity that uses constructed features and devices including POOL SLIDES, shallow POOLS, children washes, and similar attractions, which are intended for use by young children.
- **"DIVING POOL"** means a POOL used exclusively for diving.
- **"LANDING POOL"** means an AQUATIC VENUE or designated section of an AQUATIC VENUE located at the exit of one or more WATERSLIDE FLUMES. The body of water is intended and designed to receive a BATHER emerging from the FLUME for the purpose of terminating the SLIDE action and providing a means of exit to a DECK or walkway area. Also known as a splash POOL or catch POOL.
- **"SKIMMER POOL"** means a POOL using a SKIMMER SYSTEM.
- **"SURF POOL"** means any POOL designed to generate waves dedicated to the activity of surfing on a surfboard or analogous surfing device commonly used in the ocean and intended for sport as opposed to the general play intent of WAVE POOLS.
- **"THERAPY POOL"** means a POOL used exclusively for aquatic therapy, physical therapy, and/or rehabilitation to treat a diagnosed injury, illness, or medical condition, wherein the therapy is provided under the direct supervision of a licensed physical therapist, occupational therapist, or athletic trainer. This could include wound patients or immunocompromised patients whose health could be impacted if there is not additional water quality protection.
- **"WADING POOL"** means any POOL used exclusively for walking through or sitting and intended for use by young children where the depth does not exceed two (2) feet.
- **"WAVE POOL"** means any POOL designed to simulate breaking or cyclic waves for the purposes of general play.

"POOL COMPANY" means any firm or self-employed individual engaged in providing POOL services at an AQUATIC FACILITY.

"POOL DECK" see **"DECK"**

"POOL SLIDE" see **"SLIDE"**

"QUALIFIED OPERATOR" means an individual, with an active HEALTH AUTHORITY registration, responsible for the operation and maintenance of the water systems and the associated infrastructure of the AQUATIC FACILITY. Examples of QUALIFIED OPERATOR responsibilities include: maintaining water quality, cleaning filters, maintaining equipment, and POOL appurtenances.

"RECESSED STEPS" means a way of ingress/egress for an AQUATIC VENUE similar to a ladder, but the individual treads are recessed into the AQUATIC VENUE wall.

"RECIRCULATION SYSTEM" means the combination of the main drain, gutter or SKIMMER, INLETS, piping, pumps, controls, surge tank or balance tank to provide AQUATIC VENUE water recirculation to and from the AQUATIC VENUE and the treatment systems.

"REDUCTION EQUIVALENT DOSE BIAS or RED" means a variable used in UV system validation to account for differences in UV sensitivity between the UV system challenge microbe (e.g., MS2 virus) and the actual microbe to be inactivated (e.g., *Cryptosporidium)*.

"RESPONSIBLE PERSON" means an individual on-site who is responsible for daily testing of water chemistry and identifying the presence of any IMMINENT HEALTH HAZARDS including but not limited to: major barrier breaches, water clarity, proper gate function, and damaged or missing suction outlet cover in an AQUATIC VENUE open for use when a QUALIFIED OPERATOR is not on-site at an AQUATIC FACILITY. The RESPONSIBLE PERSON is not expected to correct deficiencies found, but rather to notify the QUALIFIED OPERATOR of their findings, notify the HEALTH AUTHORITY of the closure, and to secure the enclosure from general access until the identified deficiency is corrected.

~~**"RESPONSIBLE PERSON"** means an individual on-site who is responsible for the proper function of water treatment operations when a QUALIFIED OPERATOR is not on-site at an AQUATIC FACILITY.~~

"RINSE SHOWER" see **"SHOWER"**

"ROBOTIC CLEANER" means a modular vacuum system consisting of a motor-driven, in-water suction device, either self-powered or powered through a low voltage cable, which is connected to a DECK-side power supply.

"RUNOUT" means that part of a WATERSLIDE where riders are intended to decelerate and/or come to a stop. The RUNOUT is a continuation of the WATERSLIDE FLUME surface.

"SAFETY" (as it relates to construction items) means a design standard intended to prevent inadvertent or hazardous operation or use (i.e., a passive engineering strategy).

"SAFETY PLAN" means a written document that has procedures, requirements, and/or standards related to safety which the AQUATIC FACILITY staff must follow. These plans include training, emergency response, and operational procedures.

"SANITIZE" means reducing the level of microbes to that considered safe by public health standards (usually 99.999%). This may be achieved through a variety of chemical or physical means such as chemical treatment, physical cleaning, or drying.

"SECONDARY DISINFECTION SYSTEMS" means those DISINFECTION processes or systems installed in addition to the standard systems required on all AQUATIC VENUES, which are required to be used for INCREASED RISK AQUATIC VENUES.

"SHALLOW WATER" means any part of an AQUATIC VENUE with a depth that does not exceed five (5) feet.

"SHOWER" means a device that sprays water on the body.

- **"CLEANSING SHOWER"** means a SHOWER located within a HYGIENE FACILITY providing warm water and soap. The purpose of these SHOWERS is to remove contaminants including perianal fecal material, sweat, skin cells, personal care products, and dirt before BATHERS enter the AQUATIC VENUE.
- **"RINSE SHOWER"** means a SHOWER typically located in the POOL DECK area with ambient temperature water. The main purpose is to remove dirt, sand, or organic material prior to entering the AQUATIC VENUE to reduce the introduction of contaminants and the formation of DISINFECTION BY-PRODUCTS.

"SKIMMER" means a device installed in the AQUATIC VENUE wall whose purpose *is to remove* floating debris and surface water to the filter. They shall include a weir to allow for the automatic adjustment to small changes in water level, maintaining skimming of the surface water.

"SKIMMER POOL" see **"POOL"**

"SKIMMER SYSTEM" means periodic locations along the top of the AQUATIC VENUE wall for removal of water from the AQUATIC VENUE's surface for treatment.

"SLIDE" means an AQUATIC FEATURE where BATHERS slide down from an elevated height into water.

- **"DROP SLIDE"** means a SLIDE that drops BATHERS into the water from a height above the water versus delivering the BATHER to the water entry point.
- **"POOL SLIDE"** means a SLIDE having a configuration as defined by the Code of Federal Regulations in 16 CFR §1207, or is similar in construction to a playground SLIDE used to allow BATHERS to SLIDE from an elevated height to a POOL. They shall include children's (tot) SLIDES and all other non-FLUME SLIDES that are mounted on the POOL DECK or within the basin of a public swimming POOL.
- **"WATERSLIDE"** means a SLIDE that runs into a LANDING POOL or RUNOUT through a fabricated channel with flowing water.

"SPA" see **"AQUATIC VENUE"**

"SPECIAL USE AQUATIC VENUE" see **"AQUATIC VENUE"**

"SPECTATOR" means any individual at an AQUATIC FACILITY who is present to observe an event without the potential of entering the water of any AQUATIC VENUE.

"STADIUM SEATING" see **"THEORETICAL PEAK OCCUPANCY"**

"STRUCTURAL CRACK" means a break or split in the AQUATIC VENUE surface that weakens the structural integrity of the vessel.

"SUBSTANTIAL ALTERATION" means the alteration, modification, or renovation of an AQUATIC VENUE or INDOOR AQUATIC FACILITY that involves the alteration or ~~of the water volume,~~ replacement of the shell, replacement of the complete plumbing system or a complete rebuild.

"SUBSTANTIALLY SIMILAR" means the replacement of equipment that has identical hydraulic characteristics and performs to the same manufacturer's specifications.

"SUPERCHLORINATION" means the addition of large quantities of CHLORINE-based chemicals to raise the FAC levels for water quality maintenance such as to kill algae, destroy odors, or improve the ability to maintain a disinfectant residual.

"SUPPLEMENTAL DISINFECTION SYSTEMS" means those DISINFECTION processes or systems which are not required on an AQUATIC VENUE for health and safety reasons. They may be used to enhance overall system performance and improve water quality.

"SURF POOL" see **"POOL"**

"THERAPY POOL" see **"POOL"**

"THEORETICAL PEAK OCCUPANCY" means the anticipated peak number of BATHERS in an AQUATIC VENUE or the anticipated peak number of PATRONS of the DECKS of an AQUATIC FACILITY. This is the lower limit of peak occupancy to be used for design purposes for determining services that support PATRONS. THEORETICAL PEAK OCCUPANCY is used to determine the number of SHOWERS. For AQUATIC VENUES, the THEORETICAL PEAK OCCUPANCY is calculated around the type of water use or space:

- **"AGITATED WATER"** means an AQUATIC VENUE with mechanical means (AQUATIC FEATURES) to discharge, spray, or move the water's surface above and/or below the static water line of the AQUATIC VENUE so BATHERS are standing or playing vertically. Where there is no static water line, movement shall be considered above the DECK plane.
- **"FLAT WATER"** means an AQUATIC VENUE in which the water line is static except for movement made by BATHERS usually as a horizontal use as in swimming. Diving spargers do not void the FLAT WATER definition.
- **"HOT WATER"** means an AQUATIC VENUE with a water temperature over 90°F.
- **"STADIUM SEATING"** means an area of high-occupancy seating provided above the POOL level for observation.

"TRANSMISSIVITY" means the percentage measurement of UV light able to pass through a solution.

"TRICHLORAMINE" see **"CHLORAMINE"**

"TURNOVER" means the period of time, usually expressed in hours, required to circulate a volume of water equal to the capacity of the AQUATIC VENUE.

"UNBLOCKABLE DRAIN COVER" has the meaning ascribed in ANSI/APSP-16 2011 Standard.

"UNDERWATER BENCH" means a submerged seat with or without hydrotherapy jets.

"UNDERWATER LEDGE" means a continuous step in the AQUATIC VENUE wall that allows swimmers to rest by standing without treading water.

"VARIANCE" means a written document APPROVED by the Southern Nevada Health District Board of Health, which seeks a full recusal of these Regulations and may impact the health and safety of PATRONS.

"WADING POOL" see **"POOL"**

"WAIVER" means a written agreement between the HEALTH AUTHORITY and the PERMIT HOLDER that authorizes a modification of one or more regulatory requirements and has no impact on the health and safety of PATRONS.

"WATER QUALITY TESTING DEVICE or **WQTD"** means a product designed to measure the level of a parameter in water. A WQTD includes a device or method to provide a visual indication of a parameter level, and may include one or more reagents and accessory items.

"WATERSLIDE" see **"SLIDE"**

"WAVE POOL" see **"POOL"**

"ZERO DEPTH ENTRY" means a sloped entry into an AQUATIC VENUE from DECK level into the interior of the AQUATIC VENUE as a means of access and egress.

SECTION 2 Facility Design and Construction

Parts

2-1 Plan Submittal

Subparts

The provisions of this Section apply to construction of a new AQUATIC FACILITY or AQUATIC VENUE, or the SUBSTANTIAL ALTERATION to an existing AQUATIC FACILITY or AQUATIC VENUE, unless otherwise noted.

2-101 New Construction and SUBSTANTIAL ALTERATION

2-101.1 AQUATIC FACILITY construction plans shall be designed to provide sufficient clarity to indicate the location, nature, and extent of the work proposed.

2-101.2 AQUATIC FACILITY construction plans shall show in detail that it will conform to the provisions of these Regulations and relevant laws to protect the health and SAFETY of the facility's BATHERS and PATRONS.

2-101.3 No person shall begin to construct a new AQUATIC FACILITY or shall substantially alter an existing AQUATIC FACILITY without first having the construction plans detailing the construction or SUBSTANTIAL ALTERATION submitted to and APPROVED by the HEALTH AUTHORITY.

2-101.4 An OWNER who allows new construction or a SUBSTANTIAL ALTERATION of an AQUATIC FACILITY to begin prior to obtaining approval from the HEALTH AUTHORITY will be subject to applicable fees. Any contractor who begins new construction or a SUBSTANTIAL ALTERATION of an AQUATIC FACILITY prior to obtaining APPROVED plans may be reported to the Nevada State Contractors Board.

2-101.5 All applications and supporting documentation, such as plans and hydraulics, must be prepared by a DESIGN PROFESSIONAL, a licensed contractor who holds a classification A license with an A-10 subclassification issued by the State Contractors' Board, or who is Nevada registered or licensed to practice his or her respective design profession as defined by the state of Nevada.

2-101.6 All construction plans shall include the following statements:

(A) "The proposed aquatic facility and all equipment shall be constructed and installed in conformity with the approved plans and specifications or approved amendments," and

(B) "No substantial alteration, changes, additions, or equipment not specified in the approved plans or allowed in these Regulations can be made or added until the plans for such substantial alteration, changes, additions, or equipment are submitted to and approved by the Health Authority."

2-101.7 All documentation must be submitted to the HEALTH AUTHORITY electronically.

(A) In addition, the following documents must also be submitted as hard copies a minimum of:

(1) One complete set of plans;

(2) One copy of the HEALTH AUTHORITY'S Construction Application, signed and stamped by the DESIGN PROFESSIONAL or licensed contractor; and

(3) One copy of the hydraulic calculations.

2-102 Content of Design Report

2-102.1 Basis of Design Report

(A) AQUATIC FACILITY plans shall include the name, address, and contact information for the OWNER and designer. Builder information must be submitted prior to the start of construction.

(B) AQUATIC FACILITY plans shall include site information indicating at a minimum: the location of all utilities, wells, topography, natural water features, and potential sources of surface drainage and pollution which may affect the proposed AQUATIC FACILITY.

(C) AQUATIC FACILITY plans shall include a site plot plan including:

(1) A general map and detailed scaled drawings of the AQUATIC FACILITY site plan or floor plan with detailed locations of the AQUATIC VENUES and AQUATIC FEATURES; and

(2) The locations of all water supply facilities, sources of drinking water, public and private sewers, and relative elevations of paved or other walkways and the EQUIPMENT ROOM floor shall be shown on the plans with the elevations of storm and sanitary sewer inverts and street grade.

2-102.2 Plans and Specifications

(A) Detailed scaled and dimensional drawings for each individual AQUATIC VENUE shall include an AQUATIC VENUE area plan and layout plan along with dimensioned longitudinal and transverse cross sections of the AQUATIC VENUE.

(B) Detailed scaled and dimensional drawings for each individual AQUATIC VENUE shall include location and type of:

(1) INLETS;

(2) Overflows;

(3) Gravity drains;

(4) Suction outlets;

(5) Overflow gutters or devices;

(6) Piping;

(7) Designed AQUATIC VENUE water elevation;

(8) AQUATIC FEATURES such as ladders, stairs, diving boards, SLIDES, and play features;

(9) Area Lighting/Photometric;
(10) AQUATIC VENUE markings; and
(11) Surface materials.

(C) Detailed scaled and dimensional drawings of the AQUATIC FACILITY and for each individual AQUATIC VENUE, as appropriate, shall include location and type of:
(1) Design of DECK, curb, or walls enclosing the AQUATIC VENUE;
(2) DECK drains;
(3) Paved walkways and other hardscape features;
(4) Non-slip flooring;
(5) AQUATIC VENUE area finishes;
(6) Drinking fountains or other sources of drinking water;
(7) Entries and exits;
(8) Hose bibs;
(9) ENCLOSURES;
(10) Telephones; and
(11) Area lighting, to include a photometric layout.

(D) Detailed scaled and dimensional drawings for each individual AQUATIC VENUE shall contain a flow diagram showing the location, plan, elevation, and schematics of:
(1) Filters;
(2) Pumps;
(3) Chemical feeders and interlocks;
(4) Chemical controllers and interlocks;
(5) SECONDARY DISINFECTION SYSTEMS, if required;
(6) SUPPLEMENTARY DISINFECTION SYSTEMS, if installed;
(7) Ventilation devices or AIR HANDLING SYSTEMS;
(8) Heaters;
(9) Surge tanks, including operating levels;
(10) BACKFLOW prevention assemblies and air gaps;
(11) Valves;
(12) Piping;
(13) Flow meters;
(14) Gauges;
(15) Thermometers;
(16) Test cocks;
(17) Sight glasses; and
(18) Drainage system for the disposal of AQUATIC VENUE water and filter wastewater.

(E) Detailed scaled and dimensional drawings for each individual AQUATIC VENUE shall contain a schematic layout of the AQUATIC VENUE EQUIPMENT ROOM or area showing accessibility for installation and maintenance.

(F) Detailed scaled and dimensional drawings for each individual AQUATIC VENUE shall contain a schematic layout of the AQUATIC FACILITY CHEMICAL STORAGE SPACE(s).

(G) Detailed scaled and dimensional drawings for each AQUATIC FACILITY shall show the location and number of all available HYGIENE FACILITIES provided including dressing rooms, lockers and basket storage, SHOWERS, lavatories, and toilet fixtures.

2-102.3 Technical Specifications

(A) Technical specifications for the construction of each AQUATIC VENUE and all appurtenances shall accompany the drawings for the AQUATIC FACILITY plans.

(B) The technical specifications for each AQUATIC FACILITY and each AQUATIC VENUE shall include all construction details not shown on the plans that relate to the AQUATIC FACILITY.

(C) The technical specifications for each AQUATIC FACILITY shall include the sources of all water supplies.

(D) Technical specifications shall include the water surface area and volume of each AQUATIC VENUE and associated water features, as applicable.

(E) The technical specifications for each AQUATIC FACILITY and each AQUATIC VENUE shall include the THEORETICAL PEAK OCCUPANCY, respectively.

(1) The THEORETICAL PEAK OCCUPANCY for an AQUATIC FACILITY shall be used for designing systems that serve BATHERS and PATRONS and shall incorporate non-water related areas such as DECKS and other adjacent portions of the AQUATIC FACILITY not associated with the AQUATIC VENUE.

(2) The THEORETICAL PEAK OCCUPANCY shall be calculated by dividing the surface area in square feet of the AQUATIC VENUE by the density factor (D) that fits the specific AQUATIC VENUE being considered.

(a) The overall density of the AQUATIC FACILITY may be adjusted as deemed appropriate by the HEALTH AUTHORITY with respect to health and SAFETY concerns related to the intended use.

(b) The THEORETICAL PEAK OCCUPANCY for an AQUATIC FACILITY shall be determined by adding the calculations for each AQUATIC VENUE in the AQUATIC FACILITY.

THEORETICAL PEAK OCCUPANCY = AQUATIC VENUE surface area / D
The density factors *(D)* are: Water/BATHER-related: **1)** SHALLOW WATER FLAT WATER density factor = 10 ft^2 per BATHER. **2)** DEEP WATER FLAT WATER density factor = 20 ft^2 *per BATHER.* **3)** AGITATED WATER density factor = 15 ft^2 per BATHER. **4)** HOT WATER density factor = 10 ft^2 per BATHER. **5)** WATERSLIDE LANDING POOL density factor = manufacturer-established capacity at any given time. **6)** INTERACTIVE WATER PLAY water density factor = 10 ft^2 per BATHER on surface.

(F) The technical specifications and supplemental engineering data for each AQUATIC FACILITY and each AQUATIC VENUE shall include:

(1) Detailed information on the type, size, operating characteristics, and rating of all mechanical and electrical equipment;

(2) Hydraulic computations for head loss in all piping and recirculation equipment; and

(3) Pump curves that demonstrate that the selected recirculation pump(s) are adequate for the calculated required flows.

(G) The technical specifications for each AQUATIC VENUE shall include the recirculation rate, TURNOVER time, filter media, each piece of

equipment, safety equipment, and any other additional information related to the project requested by the HEALTH AUTHORITY for the purposes of the construction of the AQUATIC FACILITY, each AQUATIC VENUE and all appurtenances.

2-103 Plan Approval

2-103.1 New Construction

(A) The HEALTH AUTHORITY shall clearly state on the plans the limitations of its approval, and that the review does not include structural design or structural stability of any part of the AQUATIC FACILITY.

(B) The approval is independent of all other approvals required by other regulatory entities. The applicant must separately obtain all other required approvals and permits.

(C) The HEALTH AUTHORITY may coordinate its AQUATIC FACILITY plan review and communicate its approval with other agencies involved in the AQUATIC FACILITY construction.

(D) The HEALTH AUTHORITY shall provide a written response to the AQUATIC FACILITY OWNER or OWNER'S representative within 30 business days of the most recent submission, whether an original or revised submission, containing, but not limited to, the following information:

(1) Categorical items marked satisfactory, unsatisfactory, not applicable, or insufficient information;

(2) A comment section keyed to the compliance review list shall detail unsatisfactory and insufficient information;

(3) Indication of the HEALTH AUTHORITY approval or disapproval of the AQUATIC FACILITY construction plans;

(4) In the case of a disapproval, specific reasons for disapproval and procedure for resubmittal; and

(5) Reviewer's name, signature, and date of review.

(E) The OWNER or OWNER'S agent shall contact the HEALTH AUTHORITY to schedule all required inspections identified in the plan submission process.

(F) Additional inspections may be required by the HEALTH AUTHORITY when deemed necessary.

(G) The AQUATIC FACILITY OWNER shall maintain at least one set of APPROVED plans made available to the HEALTH AUTHORITY on-site for as long as the AQUATIC FACILITY is in operation.

2-103.2 NON-SUBSTANTIAL ALTERATIONS

(A) The AQUATIC FACILITY OWNER planning a NON-SUBSTANTIAL ALTERATION shall make application to the HEALTH AUTHORITY to review proposed changes prior to starting the NON-SUBSTANTIAL ALTERATION.

(B) All applications and supporting documentation, such as plans and hydraulics, shall be prepared by a DESIGN PROFESSIONAL or a licensed contractor with an appropriate classification issued by the Nevada State Contractors' Board.

(C) The AQUATIC FACILITY operator shall consult with the HEALTH AUTHORITY to determine if new or modified plans are required for approval of the NON-SUBSTANTIAL ALTERATIONS proposed.

2-103.3 Replacements

(A) When replacing like equipment, the AQUATIC FACILITY OWNER shall submit technical verification to the HEALTH AUTHORITY that the

replacement is equal to the originally APPROVED equipment within 5 business days of installation.

(B) The replacement of pumps, filters, feeders, controllers, filter valves, or other similar equipment with SUBSTANTIALLY SIMILAR equipment may be done after contacting the HEALTH AUTHORITY to review the proposed changes without the submission of altered AQUATIC FACILITY plans, unless the review determines the equipment is not SUBSTANTIALLY SIMILAR.

(C) The HEALTH AUTHORITY shall provide the AQUATIC FACILITY OWNER written approval or disapproval of the proposed replacement equipment's equivalency.

(D) The AQUATIC FACILITY OWNER accepts responsibility for proper and immediate replacement if equipment installed is not deemed to be SUBSTANTIALLY SIMILAR by the HEALTH AUTHORITY.

(E) Documentation of proposed, APPROVED, and disapproved replacements shall be maintained by the HEALTH AUTHORITY.

2-104 Compliance Certificate

2-104.1 A certificate of construction compliance shall be submitted to the HEALTH AUTHORITY for all AQUATIC FACILITY plans for new construction and SUBSTANTIAL ALTERATIONS requiring HEALTH AUTHORITY approvals.

2-104.2 This certificate shall be prepared by a licensed professional and be within the scope of the licensed professional's practice as defined by state law.

2-104.3 The certificate shall also include a statement that the AQUATIC FACILITY, all equipment, and appurtenances have been constructed and/or installed in accordance with APPROVED plans and specifications.

2-104.4 If commissioning or testing reports for systems such as AQUATIC FACILITY lighting, air handling, recirculation, filtration, and/or DISINFECTION are conducted, then those reports shall be included in furnished documentation.

2-2 Materials

Subparts

2-201 Aquatic Venues

2-202 Indoor Aquatic Facility

2-201 Aquatic Venues

2-201.1 AQUATIC VENUES shall be constructed of reinforced concrete or impervious and structurally sound material(s), which provide a smooth, easily cleaned, watertight structure capable of withstanding the anticipated stresses and loads for full and empty conditions; taking into consideration climatic, hydrostatic, seismic, and the integration of the AQUATIC VENUE with other structural conditions and as required by other regulatory entities.

2-201.2 All materials shall be inert, non-toxic, resistant to corrosion, impervious, enduring, and resistant to damages related to environmental conditions of the installation region.

2-201.3 Where located in areas subject to freezing, AQUATIC VENUES and appurtenances shall be protected and designed from damage due to freezing.

2-201.4 AQUATIC VENUES shall be designed in such a way to maintain their ability to retain the designed amount of water.

2-201.5 All vertical walls shall have a durable finish suitable for regular scrubbing and cleaning at the waterline.

(A) The finish shall be able to withstand daily brushing, scrubbing, and cleaning of the surface in accordance with the manufacturer's recommendations.

(B) SKIMMER POOLS shall have a six (6) inch to twelve (12) inch high waterline finish that meets the requirements of this section.

(C) PERIMETER GUTTER SYSTEMS shall have a minimum finish height of two (2) inches that meets the requirements of this section.

(D) Dark colors in excess of what is required in these Regulations for the AQUATIC VENUE finish shall not extend more than twelve (12) inches below the waterline.

2-201.6 AQUATIC VENUE floors in areas less than three (3) feet deep shall have a slip resistant finish with a minimum dynamic coefficient of friction at least equal to the requirements of ANSI A137.1-2012 of 0.42 as measured by the DCOF AcuTest.

2-201.7 Stainless steel, vinyl, PVC-P, or PVC panel and liner AQUATIC VENUE finish systems shall be acceptable provided that the system is installed on top of APPROVED materials using design requirements as listed within this Section or as APPROVED by the HEALTH AUTHORITY. If, at any time, the liner system is damaged or cut in such a way that its integrity is compromised, the AQUATIC VENUE shall be shut down until the system is fully repaired.

2-201.8 Wood, porous stone, loose pebbles, or earth shall not be permitted as an interior finish.

2-202 Indoor Aquatic Facility

2-202.1 The interior building finishes of an INDOOR AQUATIC FACILITY shall be designed for an indoor relative humidity of not less than 80 percent.

2-202.2 Mechanical Systems

(A) AIR HANDLING SYSTEMS must be designed in accordance with applicable regulatory requirements.

(B) Filters for outdoor-air intake shall be rated moisture-resistant.

2-202.3 INDOOR AQUATIC FACILITY Doors

(A) INDOOR AQUATIC FACILITY doors shall either be constructed of corrosion-resistant materials or have a covering or coating designed to withstand humid and corrosive environments which is acceptable to the HEALTH AUTHORITY.

(B) INDOOR AQUATIC FACILITY doors which may be exposed to temperatures below INDOOR AQUATIC FACILITY-air dew point shall have thermal breaks, insulation, and/or glazing as necessary to minimize the risk of uncontrolled condensation.

(C) INDOOR AQUATIC FACILITY doors and/or door frames shall be equipped with seals and/or gaskets to minimize air leakage when the door is closed.

(D) All pedestrian doors around the INDOOR AQUATIC FACILITY perimeter shall be equipped with an automatic door closer capable of closing the door completely without human assistance against the specified difference in air pressure between the INDOOR AQUATIC FACILITY and other INTERIOR SPACES.

2-202.4 INDOOR AQUATIC FACILITY window frames shall be constructed of suitable materials or shall have a suitable covering or coating that is designed to

withstand the expected atmosphere, not contribute to microbial growth, and constructed to minimize the risk of uncontrolled condensation.

2-3 Aquatic Venue Structure

Subparts

2-301	Design for Risk Management	2-3011	Walls
2-302	Bottom Slope	2-3012	Structural Stability
2-303	Aquatic Venue Access and Egress	2-3013	Handholds
2-304	Stairs	2-3014	Infinity Edges
2-305	Handrails	2-3015	Underwater Benches
2-306	Grab Rails	2-3016	Underwater Ledges
2-307	Recessed Steps	2-3017	Underwater Shelves
2-308	Ladders	2-3018	Depth Markers and Markings
2-309	Zero Depth (Sloped) Entries	2-3019	Movable Floors
2-3010	Color and Finish	2-3020	Bulkheads

2-301 Design for Risk Management

The design of AQUATIC FACILITIES and/or AQUATIC VENUE(s) shall include the OWNER and/or an aquatic risk management consultant to incorporate operational considerations such as the layout for zones of BATHER surveillance and an unobstructed view of the bottom of the AQUATIC VENUE.

2-301.1 The AQUATIC VENUE shape shall provide for the safety of BATHERS and PATRONS, thorough and complete circulation of the water, the ability to clean and maintain the AQUATIC VENUE, and the supervision of BATHERS and PATRONS using the AQUATIC VENUE.

2-301.2 The water in an AQUATIC VENUE shall be sufficiently clear so that the pattern of the main suction outlet is visible while the water is static.

(A) To make this observation, the main suction outlet shall be located at the deepest part of the AQUATIC VENUE.

(B) The main suction outlet shall be visible at all times at any point on the DECK up to 30 feet away in a direct line of sight from the main suction outlet.

(C) For SPAS, this test shall be performed when the water is in a non-turbulent state and bubbles have been allowed to dissipate.

2-302 Bottom Slope

2-302.1 The bottom slope of an AQUATIC VENUE shall be governed by the following parameters, but WAIVERS or VARIANCES may be granted for special uses and situations so long as public safety and health are not compromised.

2-302.2 In water depths under five (5) feet, the slope of the floor of all AQUATIC VENUES shall not exceed one (1) foot vertical drop for every 12 feet horizontal.

2-302.3 In water depths five (5) foot and greater, the slope of the floors of all AQUATIC VENUES shall not exceed one (1) foot vertical drop to three (3) feet horizontal, except that AQUATIC VENUES designed and used for competitive diving shall be designed to meet the standards of the sanctioning organization (such as NFSHSA, NCAA, USA Diving or FINA).

2-302.4 AQUATIC VENUES shall be designed so that they drain without leaving puddles or trapped standing water.

2-305.3 The upper railing surface of handrails shall extend above the AQUATIC VENUE coping or DECK between 34 inches and 38 inches.

2-305.4 Stairs wider than five (5) feet shall have at least one (1) additional handrail for every 10 feet of stair width.

2-305.5 Handrails shall be designed to resist a load of 50 pounds per linear foot applied in any direction and independently a single concentrated load of 200 pounds applied in any direction at any location. Hand rails shall be designed to transfer these loads through the supports to the AQUATIC VENUE or DECK structure.

2-306 Grab Rails

2-306.1 Where grab rails are provided, they shall be constructed of corrosion-resistant materials.

2-306.2 Grab rails shall be anchored securely.

2-306.3 Grab rails shall be provided at both sides of RECESSED STEPS.

2-306.4 The horizontal clear space between grab rails shall be not less than 18 inches and not more than 24 inches.

2-306.5 The upper railing surface of grab rails shall extend above the AQUATIC VENUE coping or DECK a minimum of 28 inches.

2-306.6 Grab rails shall be designed to resist a load of 50 pounds per linear foot applied in any direction and independently a single concentrated load of 200 pounds applied in any direction at any location. Grab rails shall be designed to transfer these loads through the supports to the AQUATIC VENUE or DECK structure.

2-307 Recessed Steps

2-307.1 RECESSED STEPS shall:

(A) Be slip-resistant;

(B) Be designed to be easily cleaned; and

(C) Drain into the AQUATIC VENUE.

2-307.2 RECESSED STEPS shall be uniformly spaced not less than six (6) inches and not more than 12 inches vertically along the AQUATIC VENUE wall.

2-307.3 Each recessed step must be uniformly constructed to provide for a height of five (5) inches, depth of five (5) inches, and a width of 12 inches.

2-307.4 The top surface of the uppermost RECESSED STEP shall be located not more than 12 inches below the AQUATIC VENUE coping or DECK.

2-307.5 For AQUATIC VENUES with PERIMETER GUTTER SYSTEMS, the gutter may serve as a step, provided that the gutter is provided with a grating or cover and conforms to all construction and dimensional requirements herein specified.

2-308 Ladders

2-308.1 Where provided, ladders shall be constructed of corrosion-resistant materials and be anchored securely to the DECK.

2-308.2 Ladder Handrails

(A) Ladders shall have two (2) handrails.

(B) The horizontal clear space between handrails shall be not less than 18 inches and not more than 24 inches.

(C) The upper railing surface of handrails shall extend above the AQUATIC VENUE coping or DECK a minimum of 28 inches.

(D) The clear space between handrails and the AQUATIC VENUE wall shall be not less than three (3) inches and not more than six (6) inches.

2-303 Aquatic Venue Access and Egress

2-303.1 Each AQUATIC VENUE shall have a minimum of two (2) means of access and egress, and no less than one (1) for each 75 feet of perimeter, with the exception of:

(A) WATERSLIDE LANDING POOLS;

(B) WATERSLIDE RUNOUTS; and

(C) WAVE POOLS.

2-303.2 Acceptable means of access/egress shall include stairs with handrails, grab rails with RECESSED STEPS, ladders, ramps, swimouts, and zero-depth entries.

2-303.3 For AQUATIC VENUES wider than 30 feet, such means of access/egress shall be provided on each side of the AQUATIC VENUE, and shall not be more than 75 feet apart.

2-304 Stairs

2-304.1 Stairs shall be constructed with slip-resistant materials.

2-304.2 The leading horizontal and vertical edges of stair treads shall be outlined with slip-resistant contrasting tile or other permanent marking of two (2) inches on the tread and one (1) to two (2) inches on the riser.

2-304.3 Where stairs are provided in AQUATIC VENUE water depths greater than five (5) feet, they shall be recessed and not protrude into the swimming area of the AQUATIC VENUE. The lowest tread shall be at least four (4) feet below the normal water elevation.

2-304.4 Dimensions of stair treads shall conform to the following requirements: The tread of the first step must be between 12 inches and 18 inches, the tread of the remaining steps must be between 12 inches and 18 inches, all steps must be a minimum of 24 inches wide.

2-304.5 Stair risers shall have a minimum uniform height of six (6) inches and a maximum height of 12 inches, with a tolerance of 1/2 inches between adjacent risers. Stairs shall not be used underwater to transition between two (2) sections of an AQUATIC VENUE with different depths.

Note: The bottom riser may vary due to potential cross slopes with the AQUATIC VENUE floor; however, the bottom step riser may not exceed the maximum allowable height required by this section.

2-304.6 The top surface of the uppermost stair tread shall be located not more than 12 inches below the AQUATIC VENUE coping or DECK.

2-304.7 For AQUATIC VENUES with PERIMETER GUTTER SYSTEMS, the gutter may serve as a step, provided that the gutter is provided with a grating or cover and conforms to all construction and dimensional requirements herein specified.

2-304.8 Extended treads may vary from the maximum tread depth dimension values. The maximum water depth above an extended tread must not exceed 18 inches.

2-305 Handrails

2-305.1 Handrail(s) shall be provided for each set of stairs and not obstruct access to the stair treads.

2-305.2 Handrails shall be constructed of corrosion-resistant materials, and anchored securely with a space at least three (3) inches from the adjacent riser.

(E) Ladders shall be designed to resist a load of 50 pounds per linear foot applied in any direction and independently a single concentrated load of 200 pounds applied in any direction at any location.

(F) Ladders shall be designed to transfer these loads through the supports to the AQUATIC VENUE or DECK structure.

2-308.3 Ladder Treads

(A) Ladder treads shall be slip-resistant.

(B) Ladder treads shall have a minimum horizontal tread depth of 1.5 inches and the distance between the horizontal tread and the AQUATIC VENUE wall shall not be greater than four (4) inches.

(C) Ladder treads shall be uniformly spaced not less than seven (7) inches and not more than 12 inches vertically at the handrails.

(D) The top surface of the upmost ladder tread shall be located not more than 12 inches below the AQUATIC VENUE coping, gutter, or DECK.

2-309 Zero Depth (Sloped) Entries

2-309.1 Where ZERO DEPTH ENTRIES are provided, they shall be constructed with slip-resistant materials.

2-309.2 ZERO DEPTH ENTRIES shall have a maximum floor slope of 1:12, consistent with the requirements of Section 2-302. Changes in floor slope shall be permitted.

2-309.3 Trench drains shall be used along ZERO DEPTH ENTRIES at the waterline to facilitate surface skimming.

(A) The trenches may be flat or follow the slope of the ZERO DEPTH ENTRY.

2-3010 Color and Finish

2-3010.1 Floors and walls below the water line shall be white or light pastel in color such that from the AQUATIC VENUE DECK a BATHER is visible on the AQUATIC VENUE floor and

(A) The following items can be identified:

(1) Algae growth, debris or dirt within the AQUATIC VENUE;

(2) Cracks in the surface finish of the AQUATIC VENUE; and

(3) Suction outlets in accordance with Section 2-301.2.

(B) The finish shall be at least 6.5 on the Munsell color value scale.

(C) An exception shall be made for the following AQUATIC VENUE components:

(1) Competitive lane markings;

(2) Dedicated competitive diving well floors;

(3) Step or bench edge markings;

(4) Water line tiles;

(5) WAVE POOL and SURF POOL depth change indicator tiles; or

(6) Other APPROVED designs.

(D) Munsell color values less than 6.5 or designs such as rock formations may be permitted by the HEALTH AUTHORITY as long as it does not exceed 12 inches below the water surface.

2-3010.2 The HEALTH AUTHORITY may grant a WAIVER to the color requirements of these Regulations for Munsell color values less than 6.5. Competitive or lap POOLS may have lane markings and end wall targets installed in accordance with FINA, NCAA, USA Swimming, NFSHSA, or other recognized standards.

2-3010.3 Any graphics, color, or finish incorporated into the construction of an AQUATIC VENUE floor or walls must not prevent the detection of a BATHER in

distress, algae growth, sediment, or other objects in the AQUATIC VENUE. Permission in writing from the HEALTH AUTHORITY for the use of any graphics shall be obtained before the graphics are used.

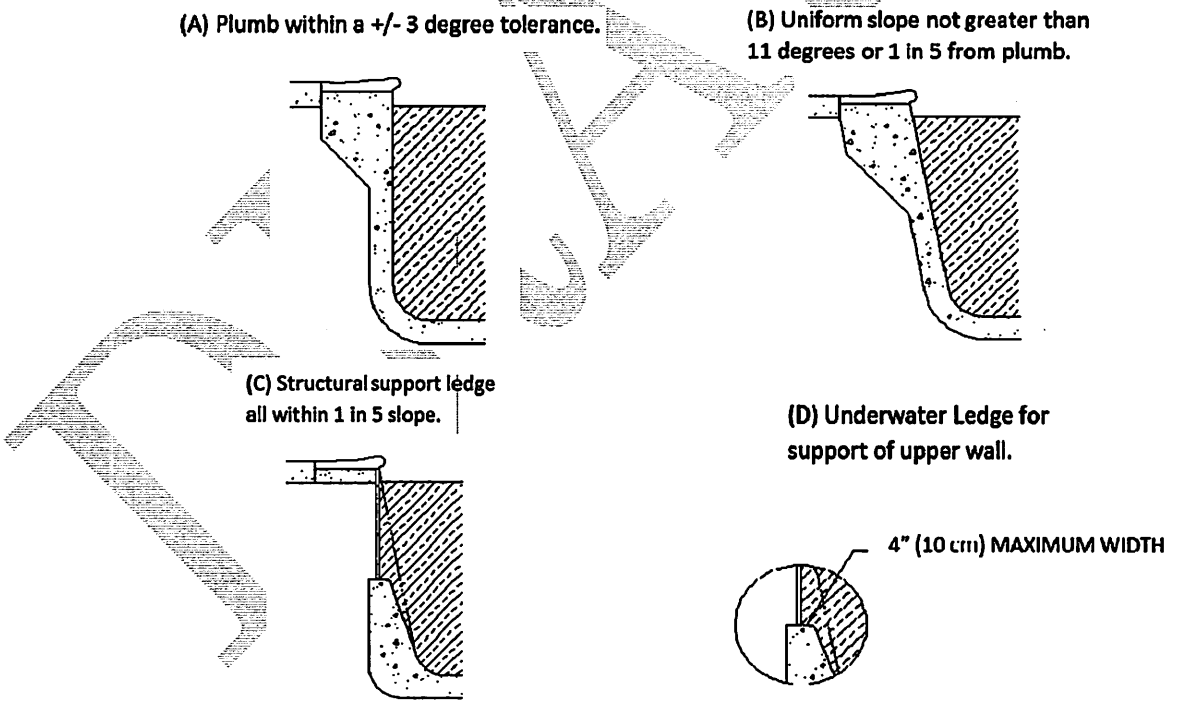
2-3011 Walls

2-3011.1 AQUATIC VENUE walls shall be plumb within a plus or minus (+/-) three degree tolerance, unless the wall design requires structural support ledges and slopes below to support the upper wall. Refer to **Figure 2-3011.3**.

2-3011.2 All corners created by adjoining floors and walls must be of a coved design.

2-3011.3 All structural support ledges and slopes of the wall shall fall entirely *within a* plane slope from the water line at not greater than a +/- three degree tolerance. A contrasting color shall be provided on the edges of any support ledge to draw attention to the ledge for BATHER safety. All corners created by adjoining walls shall be rounded or have a radius in both the vertical and horizontal dimensions to eliminate sharp corners. There shall be no projections from an AQUATIC VENUE wall with the exception of structures or elements such as stairs, grab rails, ladders, handholds, PENINSULAS, WING WALLS, underwater lights, safety ropes, WATERSLIDES, play features, other APPROVED AQUATIC VENUE amenities, UNDERWATER BENCHES, and UNDERWATER LEDGES as described in this Section. Refer to **Figure 2-3011.3**.

Figure 2-3011.3: AQUATIC VENUE Walls



2-3012 Structural Stability

2-3012.1 AQUATIC VENUES shall be designed to withstand the reasonably anticipated loads imposed by AQUATIC VENUE water, BATHERS, and adjacent soils or structures.

2-3012.2 A hydrostatic relief valve and/or suitable under drain system shall be provided where the water table exerts hydrostatic pressure to uplift the AQUATIC VENUE when empty or drained.

2-3012.3 AQUATIC VENUES and related circulation piping shall be designed with a winterizing strategy when in an area subject to freeze or thaw cycles.

2-3013 Handholds

2-3013.1 Where not otherwise exempted, every AQUATIC VENUE shall be provided with handholds (such as PERIMETER GUTTER SYSTEM, coping, horizontal bars, recessed handholds, cantilevered DECKING) around the perimeter of the AQUATIC VENUE where the water depth at the wall exceeds 24 inches. These handholds shall be installed not greater than nine (9) inches above, or three (3) inches below the static water level.

2-3013.2 Horizontal recesses may be used for handholds provided they are a minimum of 24 inches long, a minimum of four (4) inches high and between two (2) inches and three (3) inches deep.

(A) Horizontal recesses shall drain into the AQUATIC VENUE.

(B) Horizontal recesses need not be continuous, but consecutive recesses shall be separated by no more than 12 inches of wall.

2-3013.3 Where PERIMETER GUTTER SYSTEMS are not provided, a coping or cantilevered DECKING of reinforced concrete or material equivalent in strength and durability, with rounded, slip-resistant edges shall be provided.

2-3013.4 The overhang for coping or cantilevered DECKING shall not be greater than two (2) inches from the vertical plane of the AQUATIC VENUE wall, nor less than one (1) inch.

2-3013.5 The overhang for coping or cantilevered DECKING shall not exceed 3.5 inches in thickness for the last two (2) inches of the overhang.

2-3014 Infinity Edges

2-3014.1 Not more than fifty percent (50 percent) of the AQUATIC VENUE perimeter shall incorporate an INFINITY EDGE detail, unless an adjacent and PATRON accessible DECK space conforming to Sections 2-601.1 and 2-601.3 is provided.

2-3014.2 The length of an INFINITY EDGE shall be no more than 30 feet long when in water depths greater than five (5) feet.

2-3014.3 Handholds conforming to the requirements of Section 2-3013 shall be provided for INFINITY EDGES, which may be separate from, or incorporated as part of the INFINITY EDGE detail.

2-3014.4 Where INFINITY EDGES are provided, they shall be constructed of reinforced concrete or other impervious and structurally rigid material(s), and designed to withstand the loads imposed by AQUATIC VENUE water, BATHERS, and adjacent soils or structures.

2-3014.5 Troughs, basins, or capture drains designed to receive the overflow from INFINITY EDGES shall be watertight, free from STRUCTURAL CRACKS, and have a non-toxic, smooth, and slip-resistant finish.

2-3015 Underwater Benches

2-3015.1 Where provided, UNDERWATER BENCHES shall be constructed with slip-resistant materials having a minimum dynamic coefficient of friction at least equal to the requirements of ANSI A137.1-2012 of 0.42 as measured by DCOF AcuTest.

2-3015.2 The leading horizontal and vertical edges of UNDERWATER BENCHES shall be outlined with slip-resistant color contrasting tile or other permanent marking of two (2) inches on the horizontal surface and one to two inches (1-2 inches) on the vertical surface.

2-3015.3 UNDERWATER BENCHES may be installed in areas of varying depths, but the maximum AQUATIC VENUE water depth in that area shall not exceed five (5) feet.

2-3015.4 The maximum submerged depth of any seat or sitting bench shall be 24 inches measured from the water line.

2-3016 Underwater Ledges

2-3016.1 Where UNDERWATER LEDGES are provided to enable BATHERS in DEEP WATER to rest or to provide structural support for an upper wall, they shall be constructed with slip-resistant materials.

2-3016.2 UNDERWATER LEDGES for resting may be recessed or protrude beyond the vertical plane of the AQUATIC VENUE wall, provided they meet the criteria for slip resistance and tread depth outlined in this section.

2-3016.3 UNDERWATER LEDGES for resting shall only be provided within areas of an AQUATIC VENUE with a five (5) feet or greater water depth.

(A) UNDERWATER LEDGES must start no earlier than four (4) lineal feet to the deep side of the five (5) foot slope break.

(B) UNDERWATER LEDGES must be at least four (4) feet below the static water level.

2-3016.4 UNDERWATER LEDGES for structural support of upper walls are allowed.

2-3016.5 The edges of UNDERWATER LEDGES shall be outlined with slip-resistant color contrasting tile or other permanent marking of not less than one (1) inch and not greater than two (2) inches. If they project past the plane of the AQUATIC VENUE wall, the edges of UNDERWATER LEDGES shall be clearly visible from the DECK.

2-3016.6 UNDERWATER LEDGES shall have a maximum uniform horizontal tread depth of four (4) inches. See **Figure 2-3011.3**.

2-3017 Underwater Shelves

2-3017.1 UNDERWATER SHELVES may be constructed immediately adjacent to water shallower than five (5) feet.

2-3017.2 UNDERWATER SHELVES shall have a slip-resistant, color contrasting nosing at the leading horizontal and vertical edges on both the top of horizontal edges and leading vertical edges and should be viewable from the DECK and from underwater.

2-3017.3 UNDERWATER SHELVES shall have a maximum depth of 24 inches.

2-3018 Depth Markers and Markings

2-3018.1 Location

(A) AQUATIC VENUE water depths shall be clearly and permanently marked at the following locations:

(1) Minimum depth;

(2) Maximum depth;

(3) On both sides and at each end of the AQUATIC VENUE; and

(4) At the break in the floor slope between the shallow and deep portions of the AQUATIC VENUE.

(B) Depth markers shall be located on the vertical AQUATIC VENUE wall and positioned to be read from within the AQUATIC VENUE.

(C) Where depth markings cannot be placed on the vertical wall above the water level, other means shall be used so that the markings will be plainly visible to BATHERS in the AQUATIC VENUE.

(D) Depth markers shall also be located on the horizontal AQUATIC VENUE coping or DECK within 18 inches of the AQUATIC VENUE structural wall or perimeter gutter. Existing AQUATIC VENUES must meet this requirement within two (2) years from the implementation of these Regulations.

(E) Depth markers shall be positioned to be read while standing on the DECK facing the AQUATIC VENUE.

(F) Depth markers shall be installed at not more than 25 foot intervals around the AQUATIC VENUE perimeter edge and according to the requirements of this Section. In addition, for water less than five (5) feet in depth, the depth shall be marked at one (1) foot depth intervals.

2-3018.2 Construction/Size

(A) Depth markers shall be constructed of a durable material resistant to weather conditions.

(B) Depth markers shall be slip resistant when they are located on horizontal surfaces.

(C) Depth markers shall have numbers with a minimum height of four (4) inches and letters with a minimum height of one (1) inch of a contrasting color with the background.

(D) Depth markers shall be marked in units of feet and inches.

(1) Abbreviations of "FT" and "IN" may be used in lieu of "FEET" and "INCHES."

(2) Symbols for feet (') and inches (") shall not be permitted on water depth signs.

(3) Metric units may be provided in addition to, but not in lieu of, units of feet and inches.

2-3018.3 Depth markers shall be located to indicate water depth to the nearest three (3) inches, as measured from the AQUATIC VENUE floor three (3) feet out from the AQUATIC VENUE wall to the gutter lip, mid-point of surface SKIMMER(s), or surge weir(s).

2-3018.4 Depth Marking at Break in Floor Slope

(A) For AQUATIC VENUES deeper than five (5) feet, a line of contrasting color, not less than two (2) inches and not more than six (6) inches in width, shall be clearly and permanently installed on the AQUATIC VENUE floor at the shallow side of the break in the floor slope, and extend up the AQUATIC VENUE walls to the waterline.

(B) Depth marking at break in floor slope shall be constructed of a durable material resistant to local weather conditions and be slip-resistant.

(C) When used, a safety rope must be installed one (1) foot to the SHALLOW WATER side of the break in floor slope and contrasting band, a safety float rope shall extend across the AQUATIC VENUE surface.

2-3018.5 Symmetrical AQUATIC VENUE designs with the deep point at the center may be allowed by providing a dual depth marking system APPROVED by the HEALTH AUTHORITY. The dual depth marking system must indicate the depth at the wall and at the deep point as measured in Section 2-3018.3.

2-3018.6 Controlled-access AQUATIC VENUES, such as ACTIVITY POOL, LAZY RIVERS, and other venues with limited access, shall only require depth markers on a sign at the points of entry.

(A) Depth marker signs shall be clearly visible to PATRONS entering the venue.

(B) All lettering and symbols shall be as required for other types of depth markers.

2-3018.7 For AQUATIC VENUES with movable floors, a sign indicating movable floor and/or varied water depth shall be provided and clearly visible from the DECK.

(A) The posted water depth shall be the water level to the floor of the AQUATIC VENUE according to a vertical measurement taken three (3) feet from the AQUATIC VENUE wall.

(B) A sign shall be posted to inform the public that the AQUATIC VENUE has a varied depth and refer to the sign showing the current depth.

2-3018.8 A minimum of two (2) depth markers shall be provided regardless of the shape or size of a SPA.

2-3018.9 AQUATIC VENUES where the maximum water depth is six (6) inches or less, such as WADING POOLS, CHILD AMUSEMENT LAGOONS, and ACTIVITY POOL areas, shall not be required to have depth markings or "NO DIVING" signage.

2-3018.10 No Diving Markers

(A) For AQUATIC VENUE water depths five (5) feet or less, all required DECK depth markers shall be provided with "NO DIVING" warning signs along with the universal international symbol for "NO DIVING." Existing AQUATIC VENUES must meet this requirement within two (2) years from the implementation of these Regulations.

(B) "NO DIVING" warning signs and symbols shall be spaced at no more than 25 foot intervals around the AQUATIC VENUE perimeter edge.

(C) "NO DIVING" markers shall be constructed of a durable material resistant to weather conditions.

(D) "NO DIVING" markers shall be slip-resistant when they are located on horizontal surfaces. All lettering and symbols shall be at least four (4) inches in height.

2-3019 Moveable Floors

2-3019.1 The moveable floor design shall:

(A) Not impede the effectiveness of the water treatment system, and

(B) Allow for inspection, cleaning and maintenance of the area underneath.

2-3019.2 The surface of the moveable floor shall be slip-resistant if it is intended for installation in water depths less than five (5) feet.

2-3019.3 Safety

(A) A strategy for preventing BATHERS from transitioning to deeper water when a moveable floor is not continuous over the entire surface area of the AQUATIC VENUE shall be provided.

(B) The underside of the moveable floor shall not be accessible to BATHERS.

(C) The design of a moveable floor shall protect against BATHER entrapment between the moveable floor and the AQUATIC VENUE walls and floor.

(D) If the moveable floor is operated using hydraulics, the hydraulic compounds shall be listed as safe for use in AQUATIC VENUE water.

2-3019.4 Movement

(A) The speed of a moveable floor shall be less than or equal to 1.5 feet per minute.

(B) Use of the moveable floor portion of the AQUATIC VENUE shall not be open to BATHERS when the floor is being raised or lowered.
Exception: The moveable floor may be used for accessibility purposes only under direct supervision.

2-3019.5 Water Depth and Markings

(A) A floor depth indicator shall be provided that displays the current AQUATIC VENUE water depth.

(B) Warning markings stating "Moveable Floor" shall be provided at 25 foot intervals around the perimeter of the moveable floor.

2-3020 Bulkheads

2-3020.1 The bottom of the BULKHEAD shall be designed so that a BATHER cannot be entrapped underneath or inside of the BULKHEAD.

2-3020.2 The BULKHEAD placement shall not interfere with the required water circulation in the AQUATIC VENUE.

2-3020.3 BULKHEADS shall be fixed to their operational position(s) by a tamper-proof system.

2-3020.4 The gap between the BULKHEAD and the AQUATIC VENUE wall shall be no greater than 1.5 inches.

2-3020.5 The BULKHEAD shall be designed to afford an acceptable handhold as required in Section 2-3013.

2-3020.6 Proper access and egress to the AQUATIC VENUE as required by Section 2-303 shall be provided when the BULKHEAD is in place.

2-3020.7 Guard railings at least 34 inches tall shall be provided on both ends of the BULKHEAD.

2-3020.8 The width of the walkable area (total BULKHEAD width) of a BULKHEAD shall be greater than or equal to three feet and three inches (3 ft. 3 in.).

(A) If starting platforms are installed, the width of the walkable area (total BULKHEAD width) of a BULKHEAD shall be greater than or equal to three feet and nine inches (3 ft. 9 in.).

(B) Starting platforms shall be "side mount" style if the BULKHEAD is less than four feet six inches (4 ft. 6 in.) wide.

2-3020.9 The travel of a BULKHEAD shall be in accordance with one of the following:

(A) Limited such that it cannot encroach on any required clearances of other features, such as diving boards; or

(B) Designed with modifications incorporated that prevent the use of other features when the required clearances have been compromised by the position of the BULKHEAD.

2-4 Indoor/Outdoor Environment

Subparts

2-401 Lighting

2-401.1 All lighting associated with an AQUATIC FACILITY must conform to the requirements of the latest National Electrical Code (NEC).

2-401.2 Lighting as described in this Section shall be provided for all AQUATIC VENUES.

2-401.3 No lighting controls shall be accessible to PATRONS.

2-401.4 Where natural lighting methods are used to meet the light level requirements of Section 2-401.5 during portions of the day when adequate natural lighting is available, one of the following methods shall be used to ensure that lights are turned on when natural lighting no longer meets these requirements:

(A) Automatic lighting controls based on light levels or time of day, or

(B) Written operational procedures where manual controls are used.

2-401.5 AQUATIC VENUE water surface and DECK light levels shall meet the following minimum maintained light levels:

(A) Indoor Water Surface: 30 horizontal footcandles (323 lux)

(B) Outdoor Water Surface: 10 horizontal footcandles (108 lux)

(C) DECK: 10 horizontal footcandles (108 lux).

2-401.6 Overhead Lighting

(A) Artificial lighting shall be provided at all AQUATIC VENUES.

(B) Lighting shall illuminate all parts of the AQUATIC VENUE including the water, the depth markers, signs, entrances, exits, HYGIENE FACILITIES, restrooms, safety equipment, and the required DECK area and walkways.

2-401.7 Underwater Lighting

(A) Underwater lighting, where provided, shall be not less than eight (8) initial rated lumens per square foot of AQUATIC VENUE water surface area.

(1) Such underwater lights, in conjunction with overhead or equivalent DECK lighting, shall be located to provide illumination so that all portions of the AQUATIC VENUE, including the AQUATIC VENUE bottom and drain(s), may be readily seen.

(2) Higher underwater light levels shall be considered for deeper water to achieve this outcome.

(3) Colored lights must meet the same requirements for illumination as indicated in this Section.

(B) Dimmable lights shall not be used for underwater lighting.

(C) All underwater light fixture lenses shall be clear.

~~**2-401.8** AQUATIC VENUE areas shall be provided with emergency egress lighting in compliance with regulatory requirements. The path of egress shall be illuminated to at least a value of 0.5 footcandles (5.4 lux).~~

~~2-401.9~~2-401.8 Windows and any other features providing natural light into the AQUATIC VENUE space and overhead or equivalent DECK lighting shall be designed or arranged to inhibit or reduce glare on the AQUATIC VENUE water surface that would prevent seeing objects on the AQUATIC VENUE bottom.

2-402 Indoor Aquatic Facility Ventilation

2-402.1 INDOOR AQUATIC FACILITY AIR HANDLING SYSTEMS shall be designed, constructed, and installed to support the health and SAFETY of the building's PATRONS.

2-402.2 The AQUATIC FACILITY OWNER shall request from the contractor installing the INDOOR AQUATIC FACILITY AIR HANDLING SYSTEM an operating manual from the manufacturer.

2-402.3 AIR HANDLING SYSTEM Commissioning

(A) A qualified, licensed professional shall commission the AIR HANDLING SYSTEM to verify that the installed system is operating properly in accordance with the system's design.

2-403 Indoor Aquatic Facility Acoustics

2-403.1 INDOOR AQUATIC FACILITIES must receive acoustical treatment which will prevent reverberations of sound that may hinder communication.

2-404 Indoor Aquatic Facility Electrical Systems and Components

Nothing in these Regulations shall be construed as providing relief from any applicable requirements of the NEC and local codes and amendments.

2-405 Aquatic Venue Water Heating

When designing AQUATIC VENUE heating equipment, measures shall be taken to prevent BATHER exposure to water temperatures in excess of 104°F.

2-406 First Aid Area

Design and construction of new AQUATIC FACILITIES not directly associated with residential living quarters shall include an area designated for first aid equipment and/or treatment.

2-407 Drinking Fountains

2-407.1 A drinking fountain shall be provided inside an AQUATIC FACILITY.

(A) Plans for alternate locations of drinking fountains, the use of bottled water, or water dispensing units may be submitted and evaluated by the HEALTH AUTHORITY.

(B) If the drinking fountain cannot be provided inside the AQUATIC FACILITY, it shall be provided in a common use building or area adjacent to the AQUATIC FACILITY entrance and on the normal path of BATHERS going to the AQUATIC FACILITY entrance.

2-407.2 The drinking fountain shall be located where it is readily accessible and not a hazard to BATHERS. The drinking fountain shall not be located in a SHOWER area or toilet area.

2-407.3 A single drinking fountain shall be allowed for one or more AQUATIC VENUES within an AQUATIC FACILITY.

2-407.4 The drinking fountain shall be an angle jet type installed according to applicable plumbing codes.

2-407.5 The drinking fountain shall be supplied with water from an approved potable water supply.

2-407.6 The wastewater discharged from a drinking fountain shall be routed to an approved sanitary sewer system or other approved disposal area according to applicable plumbing codes.

2-408 Trash Receptacles

2-408.1 A sufficient number of receptacles shall be provided within an AQUATIC FACILITY to ensure that trash can be disposed of properly to maintain safe and sanitary conditions.

2-408.2 Receptacles shall be designed to be closed with a lid or other cover so they remain closed until intentionally opened.

2-409 Food and Drink Concessions

Concessions for food and drink in an AQUATIC FACILITY shall meet all requirements established by the HEALTH AUTHORITY and relevant law.

2-4010 Spectator Areas

2-4010.1 An area designed for use by SPECTATORS may be located within an AQUATIC FACILITY ENCLOSURE.

2-4010.2 DECK

(A) When a SPECTATOR area or access to a SPECTATOR area is located within the AQUATIC FACILITY ENCLOSURE, the DECK adjacent to the area or access shall provide egress width for the SPECTATORS in addition to the width required by these Regulations.

2-4010.3 SPECTATOR or other area located in a balcony within ten (10) feet of or overhanging any portion of an AQUATIC VENUE shall be designed to deter jumping or diving into the AQUATIC VENUE.

2-5 Recirculation System Design, Equipment and Water Treatment

Subparts

2-501 General Equipment Standards
2-502 Recirculation Systems and Equipment
2-503 Filtration
2-504 Disinfection and pH Control

2-501 General Equipment Standards

2-501.1 All equipment used or proposed for use in AQUATIC FACILITIES governed under these Regulations shall be:

(A) Of a proven design and construction, and

(B) Listed and labeled to a specific standard for the specified equipment use by an ANSI-accredited certification organization.

2-501.2 Where standards do not exist, technical documentation shall be submitted to the HEALTH AUTHORITY to demonstrate acceptability for use in AQUATIC FACILITIES. The HEALTH AUTHORITY may require tests at the expense of the applicant, as proof of acceptability.

2-502 Recirculation Systems and Equipment

2-502.1 General Requirements

Each AQUATIC VENUE designed to recirculate water shall be equipped and operated with a recirculation and filtration system capable of meeting the provisions outlined in this Section.

(A) The installation of the recirculation and the filtration system components shall be performed in accordance with the designer's and manufacturer's instructions.

(B) A water RECIRCULATION SYSTEM consisting of one or more pumps, pipes, return INLETS, suction outlets, tanks, filters, and other necessary equipment shall be provided.

2-502.2 INLETS

(A) The RECIRCULATION SYSTEM shall be designed with sufficient flexibility to achieve a hydraulic apportionment that will ensure the following:

(1) Effective distribution of treated water, and

(2) Maintenance of a uniform disinfectant residual and PH throughout the AQUATIC VENUE. Alternative designs shall be allowed based on adequate engineering justification.

(B) Effective distribution of treated water shall be accomplished by either a continuous perimeter overflow system with integral INLETS or by means of directionally adjustable INLETS adequate in design, number, and location.

(C) AQUATIC VENUES shall use wall and/or floor INLETS to provide adequate mixing.

(D) For AQUATIC VENUES greater than 35 feet wide, floor INLETS shall be required.

(E) All other types of INLET systems not covered in this section shall be subject to approval by the HEALTH AUTHORITY with proper engineering justification.

(F) INLETS shall be hydraulically sized to provide the design flow rates for each AQUATIC VENUE area of multi-zone AQUATIC VENUES based on the required design TURNOVER for each zone.

(G) INLETS shall not extend from the wall or floor.

(H) Floor INLETS shall be spaced to effectively distribute the treated water throughout the AQUATIC VENUE.

(I) Floor INLETS shall be flush with the bottom of the AQUATIC VENUE.

(1) Distance between floor INLETS shall be no greater than 15 feet.

(2) A row of floor INLETS shall be located within 10 feet of each side wall.

(3) Floor INLETS, used in combination with wall INLETS, shall be spaced no greater than ten (10) feet from the nearest side wall.

(J) Wall INLET velocity shall mix the water effectively.

(1) INLETS shall be directionally adjustable to provide effective distribution of water.

(2) Wall INLETS shall be spaced no greater than 15 feet apart.

(3) INLETS shall be placed within five (5) feet of each corner of the AQUATIC VENUE.

(4) INLETS shall be placed at least five (5) feet from a SKIMMER.

(5) INLETS shall be placed in each recessed or isolated area of the AQUATIC VENUE.

(6) INLETS shall be placed not less than 18 inches below the normal operating water level of the AQUATIC VENUE.

(K) Wall INLETS shall not require design to provide directional flow if part of a manufactured gutter system in which the filtered return water conduit is contained within the gutter structure.

(L) Dye testing may be required by the HEALTH AUTHORITY to evaluate the mixing characteristics of the RECIRCULATION SYSTEM. If a dye test

reveals inadequate mixing in the AQUATIC VENUE after 20 minutes, the RECIRCULATION SYSTEM shall be adjusted or modified to assure adequate mixing.

2-502.3 PERIMETER GUTTER SYSTEMS

(A) All AQUATIC VENUES shall be designed to provide skimming for the entire AQUATIC VENUE surface area with an engineering rationale provided by the DESIGN PROFESSIONAL or licensed contractor.

(B) For AQUATIC VENUES that require a PERIMETER GUTTER SYSTEM, the PERIMETER GUTTER SYSTEM shall extend around the entire AQUATIC VENUE perimeter except where noted in these Regulations.

(C) ZERO DEPTH ENTRY AQUATIC VENUES shall have a continuous overflow trench that terminates as close to the side walls as practical, including any zero-depth portion of the AQUATIC VENUE perimeter.

(D) Where a PERIMETER GUTTER SYSTEM cannot be continuous, the ends of each section shall terminate as close as practical to each other.

(E) The PERIMETER GUTTER SYSTEM shall be designed to allow the continuous removal of water from the AQUATIC VENUE'S upper surface at a rate of at least 125 percent of the APPROVED total recirculation flow rate chosen by the designer.

(F) Gutters shall be equipped with removable grating to allow for ready inspection, cleaning, and repair.

(G) Gutters shall be designed to prevent the entrapment of BATHER'S limbs.

(H) Drop boxes, converters, return piping, or FLUMES used to convey water from the gutter shall be designed to:

- **(1)** Prevent flooding and BACKFLOW of skimmed water into the AQUATIC VENUE, and
- **(2)** Handle at least 125 percent of the APPROVED total recirculation flow.

(I) All PERIMETER GUTTER SYSTEMS shall be designed with an effective net surge capacity of not less than one gallon for each square foot of AQUATIC VENUE surface area.

(J) Surge shall be provided within a surge tank or the gutter above the normal operating level.

- **(1)** The tank capacity specified shall be the net capacity.
- **(2)** The DESIGN PROFESSIONAL, or licensed contractor, shall define the minimum, maximum, and normal AQUATIC VENUE operating water levels in the surge tank.
- **(3)** The surge tank's minimum, maximum, and normal AQUATIC VENUE operating water levels shall be marked on the tank so as to be readily visible for inspection.
- **(4)** Surge tanks shall have overflow pipes to convey excess water to waste via an air gap or other APPROVED BACKFLOW prevention device.

(K) Gutters shall be level within a tolerance of plus or minus 1/16 inch around the perimeter of the AQUATIC VENUE.

(L) Automatic makeup water supply equipment shall be provided to maintain continuous skimming of AQUATIC VENUES with PERIMETER GUTTER SYSTEMS.

(M) Makeup water shall be supplied through an air gap or other APPROVED BACKFLOW prevention device.

2-502.4 SKIMMERS and Alternative Gutter Technologies Using In- AQUATIC VENUE Surge Capacity

(A) The use of manufactured direct suction SKIMMERS shall be in accordance with the manufacturer's recommendations to include the installation of associated equalizer lines and valves.

(B) Where SKIMMERS are used, at least one surface SKIMMER shall be provided for each 400 square feet of surface area or fraction thereof, with a minimum of two skimmers provided for each AQUATIC VENUE.

(C) Additional SKIMMERS may be required to achieve effective skimming under site-specific conditions (e.g., heavy winds and/or contaminant loading).

(D) Hybrid systems that incorporate surge weirs in the overflow gutters to provide for in-AQUATIC VENUE surge shall meet all of the requirements specified for PERIMETER GUTTER SYSTEMS with the exception of the surge or balance tank, since the surge capacity requirement will be alternately met by the in-AQUATIC VENUE surge capacity.

(1) The number of surge weirs shall be based on the individual surge weir capacity and the operational apportionment of the design recirculation flow rate.

(2) The location of the required number of surge weirs shall be uniformly spaced in the gutter sections.

(E) When used, the SKIMMER SYSTEM shall be designed to handle up to 100 percent of the total recirculation flow rate chosen by the designer.

(F) SKIMMERS shall be so located as to provide effective skimming of the entire water surface.

(G) SKIMMERS shall be located so as not to be affected by areas with restricted flow such as near steps and within small recesses.

(H) Wind direction shall be considered in the number and placement of SKIMMERS.

(I) The flow rate for the SKIMMERS shall comply with the manufacturer's data plates.

(J) In the absence of a maximum specified SKIMMER flow rate, the flow through the SKIMMER shall not exceed 55 GPM.

(K) Each SKIMMER shall have a weir that adjusts automatically to variations in water level over a minimum range of four (4) inches.

(L) Each SKIMMER shall be equipped with a trimmer valve capable of distributing the total flow between individual SKIMMERS.

(M) Each SKIMMER shall be level with all other SKIMMERS in the AQUATIC VENUE within a tolerance of plus or minus 1/4 inch.

2-502.5 Submerged Suction Outlet

(A) Submerged suction outlets, including sumps and covers, shall be listed and labeled to the requirements of ANSI/APSP-16 2011 or successor standard.

(B) Unless an UNBLOCKABLE DRAIN COVER design is provided, a minimum of two (2) hydraulically balanced filtration system outlets are required in the bottom of an AQUATIC VENUE.

(1) One of the outlets may be located on the bottom of a side/end wall at the deepest level.

(2) The outlets shall be connected to a single main suction pipe by branch lines piped to provide hydraulic balance between the drains.

(3) The branch lines shall not be valved to be capable of operating independently.

(C) Outlets shall be spaced no more than 15 feet from the AQUATIC VENUE side walls.

(D) Outlets shall be located no less than three (3) feet apart, measuring between the centerlines of the suction outlet covers, or on separate planes.

(E) Where gravity outlets are used, the main drain outlet shall be connected to a surge tank, collection tank, or balance tank/pipe.

(F) The main drain system shall be designed at a minimum to handle recirculation flow of 100 percent of the total design recirculation flow rate.

(1) Where there are two main drain outlets, the branch pipe from each main drain outlet shall be designed to carry 100 percent of the recirculation flow rate.

(2) Where three or more main drain outlets are connected by branch piping in accordance with this Section, the design flow through each branch pipe from each main drain outlet may be as follows:

(a) $Q_{max}=Q_{total} / (N-1)$ where Q_{max} for each drain= Q(total recirculation rate) / (number of drains less one) .

(G) The main drain suction pipe to the pump shall be equipped with a proportioning valve(s) to adjust the flow distribution between the main drain piping and the surface skimming system piping.

(H) Flow velocities shall meet ANSI/APSP-16 2011, or successor standard, based on a 100 percent design flow through each main drain cover.

2-502.6 Piping

(A) Piping system components in contact with AQUATIC VENUE water shall be of non-toxic material, resistant to corrosion, able to withstand operating pressures, chemicals, and temperatures.

(B) RECIRCULATION SYSTEM piping shall be designed so that water velocities do not exceed eight feet per second (8ft/s) on the discharge side of the recirculation pump unless alternative values have proper engineering justification.

(1) Suction piping shall be sized so that the water velocity does not exceed six feet per second (6ft/s) unless alternative values have proper engineering justification.

(2) Gravity piping shall be sized with consideration of available system head or as demonstrated by detailed hydraulic calculations at the design recirculation flow rate.

(C) Provisions shall be made for the expansion and contraction of pipes due to temperature variations.

(1) Provisions shall be made for the complete drainage of all AQUATIC VENUE piping and designed with no less than a 2% slope.

(2) All piping shall be supported continuously or at sufficiently close intervals to prevent the sagging and settlement of pipes.

(D) All exposed piping shall be clearly marked to indicate function.

(1) All piping shall be clearly marked to indicate type or source of water and direction of flow with clear labeling and/or color coding.

(2) All valves shall be clearly marked to indicate function with clear labeling and/or color coding.

(3) A complete, easily readable schematic of the entire AQUATIC VENUE RECIRCULATION SYSTEM shall be openly displayed in the mechanical room or available to maintenance and inspection personnel.

(E) Suction and supply AQUATIC VENUE piping shall be subjected to a static hydraulic water pressure test for the duration specified by an engineer and/or the HEALTH AUTHORITY.

2-502.7 Strainers and Pumps

(A) All pumps, except those for vacuum filter installations, shall have a strainer/screen device on the suction side to protect the filtration and pumping equipment and have a spare strainer basket present for each pump.

(B) All material used in the construction of strainers and screens shall be:

(1) Nontoxic, impervious, and enduring;

(2) Able to withstand design stresses; and

(3) Designed to minimize friction losses.

(C) VFD*s* may be installed to control all recirculation and feature pumps.

(1) The recirculation pump(s) shall have adequate capacity to meet the recirculation flow design requirements in accordance with the maximum TDH required by the entire RECIRCULATION SYSTEM under the most extreme operating conditions. The system design shall include an increase of 23.1 feet of head between a clean and dirty filter condition.

(2) The pump shall be designed to maintain design recirculation flows under all conditions.

(3) Where vacuum filters are used, a vacuum limit switch shall be provided on the pump suction line.

(4) The vacuum limit switch shall be set for a maximum vacuum of 18 inches of mercury.

(5) All recirculation pumps shall be self-priming or flooded-suction.

(D) All pumps and associated motors must have equivalent horsepower ratings.

(E) A compound vacuum-pressure gauge shall be installed on the pump or on the suction line as close to the pump as possible when a pump port is unavailable or inaccessible.

(1) A pressure gauge shall be installed on the pump or on the discharge line adjacent to the pump when the pump port is unavailable or inaccessible.

(2) Gauges shall be installed so they can be easily read.

(3) All gauges shall be equipped with valves to allow for servicing under operating conditions.

2-502.8 Flow Measurement and Control

(A) A flow meter accurate to within +/- 5 percent of the actual design flow shall be provided for each filtration system. When a VFD is in use a flow meter must be accurate to within +/- 2 percent.

(B) Flow meters shall be installed in accordance with the manufacturer's instructions.

(C) All pumps shall be installed with a manual adjustable discharge valve to provide for system isolation.

2-502.9 Flow Rates/Turnover Time

Table 2-502.9: Aquatic Venue Maximum Allowable Turnover Times

Type of Aquatic Venue	Turnover Maximum
Activity Pools	4 hours
Diving Pools	6 hours
Interactive Water Play Venues*	0.5 hours
Isolation/Floatation Units*	4 Turnovers between users
Lazy Rivers	4 hours
Runout Slides	4 hours
Wading Pools*	0.5 hours
Child Amusement Lagoons*	0.5 hours
Wave Pools	4 hours
All Other Pools	6 hours
All Spas	0.5 hours
Surf Pools	Submit Engineering Justification from Equipment Manufacturer
***Shall have secondary disinfection systems**	

(A) All AQUATIC VENUES shall comply with the above maximum allowable TURNOVER times shown in **Table 2-502.9**.

(B) The TURNOVER time shall be calculated based on the total volume of water divided by the flow rate through the filtration process.

(1) Unfiltered water such as water that may be withdrawn from and returned to the AQUATIC VENUE for such AQUATIC FEATURES as SLIDES by a pump separate from the filtration system, shall not factor into TURNOVER time.

(C) The HEALTH AUTHORITY may grant a TURNOVER time WAIVER for AQUATIC VENUES with extreme volume or operating conditions based on a proper engineering justification.

(D) TURNOVER times shall be calculated based solely on the flow rate through the filtration system as specified in **Table 2-502.9**.

(E) The total volume of the AQUATIC VENUE system shall include the AQUATIC VENUE and any surge/balance tank.

(F) Where water is drawn from the AQUATIC VENUE to supply water to AQUATIC FEATURES (e.g., SLIDES, tube rides), the water may be reused prior to filtration provided the DISINFECTANT and PH levels of the supply water are maintained at required levels.

(G) The ratio of INTERACTIVE WATER PLAY AQUATIC VENUE feature water to filtered water shall be no greater than 3:1 in order to maintain the efficiency of the FILTRATION SYSTEM.

(H) For AQUATIC FACILITIES that intend to reduce the recirculation flow rate below the minimum required design values when the AQUATIC VENUE is closed, the flow turndown system shall be designed as follows:

(1) The system flowrate shall not be reduced more than 50 percent lower than the minimum design requirements and only reduced when the AQUATIC VENUE is closed.

(2) The system flowrate shall be based on ensuring the minimum water clarity required under Section 3-506 is met before opening to the public.

(3) The system shall be required to maintain required DISINFECTANT and PH levels at all times.

(4) When the system is used to increase the recirculation flow rate above the minimum requirement (e.g., in times of peak use to maintain water quality goals more effectively) the following requirements shall not be exceeded:
(a) Velocity requirements inside of pipes (per Section 2-502.6(B));
(b) Maximum filtration system flow rate; and
(c) Maximum suction outlet cover rating.

2-503 Filtration

2-503.1 Filtration shall be required for all AQUATIC VENUES that recirculate water.

2-503.2 The granular media filter system shall have valves and piping to allow isolation, venting, complete drainage (for maintenance or inspections), and backwashing of filters.

(A) Filtration accessories shall include the following items:
(1) Influent pressure gauge;
(2) Effluent pressure gauge;
(3) Backwash sight glass or other means to view backwash water clarity; and
(4) Manual air relief system.

(B) Filters shall be installed with adequate clearance and facilities for ready and safe inspection, maintenance, disassembly, and repair. A means and access for easy removal of filter media shall be required.

(C) High-rate granular media filters shall be designed to operate at no more than the rate specified in the NSF/ANSI 50 listing or as provided per manufacturer, whichever rating is lower.

(D) The granular media filter system shall be designed to backwash each filter at a rate of at least 15 gallons per minute per square foot of filter bed surface area, unless explicitly prohibited by the filter manufacturer and APPROVED at an alternate rate as specified in the NSF/ANSI 50 listing.

(E) The minimum depth of filter media cannot be less than the depth specified by the manufacturer.

(F) Influent and effluent pressure gauges shall have the capability to measure up to 20 pounds per square inch increase in the differential pressure across the filter bed in increments of one pound per square inch or less.

(G) If coagulant feed systems are used, they shall be installed with the injection point located before the filters as far ahead as possible, with electrical interlocks in accordance with Sections 2-504.2(B) and (J).

2-503.3 Precoat Filters

(A) Filters should be used with the appropriate filter media as recommended by the filter manufacturer for maximum clarity and cycle length for AQUATIC VENUE use.
(1) Filter media shall be listed and labeled to NSF/ANSI Standard 50 by an ANSI-accredited certification organization and within the size specifications provided by the filter manufacturer and NSF/ANSI 50.
(2) Alternate types of filter media shall be permitted in accordance with the filter manufacturer's recommendation for AQUATIC VENUE use.

(3) Alternate types of filter media shall be listed and labeled to NSF Standard 50 by an ANSI-accredited certification organization.

(B) The design filtration rate for vacuum precoat filters shall not be greater than either:
(1) 2 gallons per minute per square foot, or
(2) 2.5 gallons per minute per square foot when used with a continuous precoat media feed.

(C) The design filtration rate for pressure precoat filters shall not be greater than the rate specified in the NSF/ANSI 50 listing or as provided per manufacturer, whichever rating is lower.

(D) The filtration surface area shall be based on the outside surface area of the media with the manufacturer's recommended thickness of precoat media. If equipment is provided for the continuous feeding of filter media to the filter influent, the equipment shall be used in accordance with the manufacturer's specifications.

(E) All discharged filter media shall be disposed of according to the law.

2-503.4 Cartridge Filters

(A) The design filtration rate for surface-type cartridge filter shall not exceed the rate specified in the NSF/ANSI 50 listing or as provided per manufacturer, whichever rating is lower.

(B) Filter cartridges shall be supplied and sized in accordance with the filter manufacturer's recommendation for AQUATIC VENUE use.

~~(C) One complete set of spare cartridges shall be maintained on site in a clean and dry condition.~~

2-504 Disinfection and pH Control

2-504.1 Chemical Addition Methods

(A) DISINFECTION and PH control chemicals shall be automatically introduced through the RECIRCULATION SYSTEM.

(B) A chemical controller, as specified in Section 2-504.2(V) shall be provided and used for MONITORING and control of disinfectant and PH feed equipment.

(C) DISINFECTION and PH control chemicals shall be added using a feeder that meets the requirements outlined in Section 2-504.2.

2-504.2 Feed Equipment

(A) Chemical feeders shall be required on all new construction or at the SUBSTANTIAL ALTERATION of all AQUATIC VENUES following the adoption of these Regulations.

(B) The AQUATIC FACILITY shall be equipped with chemical feed equipment such as flow-through chemical feeders, electrolytic chemical generators, mechanical chemical feeders, chemical feed pumps, and AUTOMATED CONTROLLERS. All chemical feeders shall be provided with an automatic means to be disabled through an electrical interlock with at least two of the following:
(1) Recirculation pump power;
(2) Flow meter/flow switch in the return line; and/or
(3) Chemical control power and paddle wheel or flow cell on the chemical controller if a safety test confirms feed systems are disabled through the controller when the pump is turned off, loses prime, or filters are backwashed.

(C) The chemical feeders shall be installed according to the manufacturer's instructions.

(D) A physical BARRIER shall be installed between chemical feed pumps supplying acid or liquid hypochlorite solution and other AQUATIC VENUE components to shield staff and equipment from chemical sprays and leaking connections.

(E) Feeders shall be capable of supplying disinfectant and PH control chemicals to the AQUATIC VENUE to maintain the minimum required DISINFECTION levels at all times in accordance with these Regulations.

(F) All CHLORINE dosing and generating equipment including erosion feeders, or in line electrolytic and brine/batch generators, shall be designed with a capacity to provide the following:

(1) Outdoor AQUATIC VENUES: 4.0 lbs of FAC/day/10,000 gal of AQUATIC VENUE water;

(2) Indoor AQUATIC VENUES: 2.5 lbs FAC/day/10,000 gal of AQUATIC VENUE water.

(G) The rates above are suggested minimums and in all cases the engineer shall validate the feed and production equipment specified.

(H) The injection point of DISINFECTION chemicals shall be located before any PH control chemical injection point with sufficient physical separation of the injection points to reduce the likelihood of mixing of these chemicals in the piping during periods of interruption of the RECIRCULATION SYSTEM flow.

(I) Means of injection shall not allow BACKFLOW into the chemical system from the AQUATIC VENUE system.

(J) Coagulants shall be metered and injected through a pump system prior to the filters per the manufacturer's recommended rate.

(K) Use of compressed CHLORINE gas shall be prohibited for new construction and after SUBSTANTIAL ALTERATION to existing AQUATIC FACILITIES.

(L) Use of compressed CHLORINE gas in existing AQUATIC FACILITIES is covered in Section 3-503.1(D).

(M) Liquid solution feeders shall include positive displacement pumps such as peristaltic pumps, diaphragm pumps, venturi feeders, and piston pumps.

(N) Feed rates shall be locally adjusted on the pumps and also on/off controlled using an AUTOMATED CONTROLLER.

(O) Erosion feeders may be pressure, pressure differential, or spray erosion types.

(1) Dry chemicals shall be granules or tablets.

(2) Feeders shall have isolation valves on each side of the feeder to be closed before opening the unit.

(3) Erosion feeders shall use AQUATIC VENUE water post-filtration as the source water unless APPROVED by the feeder manufacturer.

(P) Carbon dioxide and ozone are the only gas feed systems permitted in AQUATIC FACILITIES.

(Q) Proper ventilation shall be required for all gas systems.

(R) Where CO_2 cylinders are located indoors, a monitor and alarm shall be provided to alert of high CO_2 and/or low O_2 levels.

(S) Where used, UV light systems shall be installed in the RECIRCULATION SYSTEM after the filters.

(1) A bypass pipe that is valved on both ends shall be installed to allow maintenance of the UV unit while the AQUATIC VENUE is in operation.

(2) UV system operation shall be interlocked with the recirculation pump so that power to the UV system is interrupted when there is no water flow to the UV unit.

(T) In-line generator(s) or brine (batch) generator(s) shall be permitted on AQUATIC VENUES.

(1) In-line generators shall use POOL-grade salt dosed into the AQUATIC VENUE to produce and introduce CHLORINE into the AQUATIC VENUE treatment loop through an electrolytic chamber.

(2) Brine (Batch) generators shall produce CHLORINE through an electrolytic cell.

(3) CHLORINE shall be produced from brines composed of POOL-grade salt.

(4) Electrolytic generators shall have a TDS or salt (NaCl) readout and a low salt indicator.

(5) The feed rate shall be adjustable from zero (0) to full range.

(6) The generator unit shall be listed and labeled to UL 1081 (for electrical, fire and shock safety) by an ANSI-accredited certification organization.

(7) The generator(s) shall be interlocked.

(8) The saline content of the AQUATIC VENUE water shall be maintained in the required range specified by the manufacturer.

(U) Feeders for PH adjustment shall:

(1) Utilize APPROVED substances for PH adjustment shall include but not be limited to muriatic (hydrochloric) acid, sodium bisulfate, carbon dioxide, sulfuric acid, sodium bicarbonate, and soda ash;

(2) Be adjustable from zero (0) to full range; and

(3) Have reservoirs clearly marked and labeled with its contents.

~~(V)~~ AUTOMATED CONTROLLERS shall be installed for MONITORING and turning on or off chemical feeders used for PH and disinfectants. ~~at all AQUATIC VENUES five (5) years following the implementation date of these Regulations, except as required in Section 3-503.7(B).~~

~~(W) Operation manuals or other instructions that give clear directions for cleaning and calibrating AUTOMATED CONTROLLER probes and sensors shall be provided in close proximity to the AUTOMATED CONTROLLER.~~

~~(X)~~(V) A set point shall be used to target the disinfectant level and the PH level.

2-504.3 SECONDARY DISINFECTION SYSTEMS

(A) The new construction or SUBSTANTIAL ALTERATION of the following INCREASED RISK AQUATIC VENUES shall be required to use a SECONDARY DISINFECTION SYSTEM after adoption of these Regulations:

(1) AQUATIC VENUES designed primarily for children under 5 years old; such as:

(a) WADING POOLS,

(b) CHILD AMUSEMENT LAGOONS, and

(c) INTERACTIVE WATER PLAY VENUES with no standing water;

(2) THERAPY POOLS; and

(3) ISOLATION AND FLOTATION UNITS.

(B) If installed and labeled as SECONDARY DISINFECTION SYSTEMS, then they shall conform to all requirements specified under Section 2-504.3(C).

(C) 3-log inactivation and OOCYST Reduction

SECONDARY DISINFECTION SYSTEMS shall be designed to achieve a minimum 3-log (99.9 percent) reduction in the number of infective *Cryptosporidium parvum* OOCYSTS per pass through the SECONDARY DISINFECTION SYSTEM.

(1) The SECONDARY DISINFECTION SYSTEM shall be located in the treatment loop (post filtration) and treat a portion (up to 100 percent) of the filtration flow prior to return of the water to the AQUATIC VENUE or AQUATIC FEATURE.

(2) The flow rate (Q) through the SECONDARY DISINFECTION SYSTEM shall be determined based upon the total volume of the AQUATIC VENUE or AQUATIC FEATURE (V) and a prescribed dilution time (T) for theoretically reducing the number of assumed infective *Cryptosporidium* OOCYSTS from an initial total number of 100 million (10^8) OOCYSTS to a concentration of one OOCYST/100 mL.

(3) Accounting for a 3-log (99.9 percent) reduction of infective *Cryptosporidium* OOCYSTS through the SECONDARY DISINFECTION SYSTEM with each pass, the SECONDARY DISINFECTION SYSTEM flow rate (Q) shall be:

$Q = V \times \{[14.8 - \ln(V)] / (60 \times T)\}$, where:

- Q = SECONDARY DISINFECTION SYSTEM flow rate (GPM)
- V = Total water volume of the AQUATIC VENUE or AQUATIC FEATURE, including surge tanks, piping, equipment, etc. (gals)
- T = Dilution time (hrs.)

(4) The dilution time shall be the lesser of nine hours or 75 percent of the uninterrupted time an AQUATIC VENUE is closed in a 24 hour period.

(5) Where a SECONDARY DISINFECTION SYSTEM is installed, a means shall be installed to confirm the required flow rate to maintain a minimum 3-log (99.9 percent) reduction of infective *Cryptosporidium* OOCYSTS at the minimum flow rate.

(D) UV Light Systems

UV equipment shall be third party validated in accordance with the practices outlined in the US EPA Ultraviolet Disinfectant Guidance Manual dated November, 2006, publication number EPA 815-R-06-007.

(1) The US EPA Ultraviolet Disinfectant Guidance Manual shall be considered a recognized national standard in these Regulations.

(2) UV systems and all materials used therein shall be suitable for their intended use.

(3) The UV equipment shall be installed after the filtration and before the addition of primary disinfectant.

(a) UV equipment shall be labeled with the following design specifications: maximum flow rate, minimum TRANSMISSIVITY, minimum intensity, and minimum dosage.

(b) An inline strainer shall be installed after the UV unit to capture broken lamp glass or sleeves.

(4) The equipment shall be electrically interlocked with feature pump(s) or automated feature supply valves, such that when the UV equipment fails to produce the required dosage as measured by an automated sensor(s), the water features do not operate.

(5) UV systems shall not operate when the RECIRCULATION SYSTEM is not operating.

(6) The UV equipment shall be complete with calibrated UV sensors, which record the output of all the UV lamps installed in a system.

(a) Where multiple lamps are fitted, sufficient sensors shall be provided to measure each lamp.

(b) If the design utilizes fewer sensors than lamps, the location of lamps and sensors shall be such that the output of all lamps is adequately measured.

(7) The automated shut down of the UV equipment for any reason shall initiate a visual alarm or other indication which will alert staff on-site or remotely.

(a) Signage instructing staff or PATRONS to notify facility management shall be posted adjacent to the visual indication.

(b) If the AQUATIC FACILITY is not staffed, the sign shall include a means to contact management whenever the AQUATIC FACILITY is in use.

(8) The UV equipment shall be supplied with the appropriate validation reports and documentation for that equipment model.

(9) This documentation will include a graph or chart indicating the dose at which a 3-log inactivation is guaranteed for the system in question.

(a) This dose shall be inclusive of validation factors and RED BIAS.

(b) System performance curves that do not include such factors are not considered validated systems.

(10) Validation records shall include the graph indicating the minimum intensity reading required at the operational flow for the minimum RED required to achieve 3-log reduction. Where systems are validated to a specific dose, the graph shall show the minimum intensity reading required at the operational flow for that dose.

(11) Based on the recommended validation protocol presented in the US EPA Disinfection Guidance Manual, UV reactors certified by ÖNORM and DVGW for a *Bacillus subtilis* RED of 40mJ/cm^2 shall be granted 3-log *Cryptosporidium* and 3-log *Giardia* inactivation credit as required in these Regulations.

(E) Ozone DISINFECTION

SECONDARY DISINFECTION SYSTEMS using ozone shall provide the required inactivation of *Cryptosporidium* in the full flow of the SECONDARY DISINFECTION SYSTEM after any side-stream has remixed into the full flow of the SECONDARY DISINFECTION SYSTEM.

(1) Ozone systems shall be validated by an ANSI-accredited third party testing and certification organization to confirm that they provide a minimum 3-log (99.9 percent) inactivation of *Cryptosporidium* in the full SECONDARY DISINFECTION SYSTEM flow after any side-stream has remixed into the full SECONDARY DISINFECTION SYSTEM flow and prior to return of the water to the AQUATIC VENUE or AQUATIC FEATURE recirculation treatment loop.

(2) Ozone systems and all materials used therein shall be suitable for their intended use and shall be installed:
  (a) In accordance with all applicable requirements,
  (b) As listed and labeled to a specific standard by an ANSI-accredited certification organization, and
  (c) As specified by the manufacturer.

(3) An ozone system shall be a complete system consisting of the following (either skid-mounted or components):
  (a) Ozone generator;
  (b) Injector / injector manifold;
  (c) Reaction tank (contact tank) / mixing tank / degas tower;
  (d) Degas valve (if applicable, to vent un-dissolved gaseous ozone;
  (e) Ozone destruct (to destroy un-dissolved gaseous ozone);
  (f) ORP monitor / controller;
  (g) Ambient ozone monitor / controller;
  (h) Air flow meter / controller; and
  (i) Water BACKFLOW prevention device in gas delivery system.

(4) These components (or skid) shall be installed as specified by the manufacturer to maintain the required system validation as noted above.

(5) The ozone generating equipment shall be designed, sized, and controlled utilizing an ORP monitor/controller (independent of and in addition to any halogen ORP monitor/controller).
  (a) The device shall be placed in the AQUATIC VENUE and AQUATIC FEATURE recirculation water downstream of the ozone side-stream loop and before the halogen feed location.
  (b) The minimum ORP reading shall be no less than 600 mV measured directly after (one to five feet (1ft. to 5 ft.)) the ozone side-stream remixes into the full flow of the RECIRCULATION SYSTEM.
  (c) The maximum ORP reading shall be no greater than 900 mV.

(6) The ozone system injection point shall be located in the AQUATIC VENUE return line after the filtration and heating equipment, prior to the primary DISINFECTANT injection point.
  (a) The injection and mixing system shall not prevent the attainment of the recirculation rate required elsewhere in these Regulations.
  (b) An ambient ozone gas monitor/controller located adjacent to the ozone reactor/contact tank shall be utilized to disable the ozone system in the event of an ozone gas leak.

(7) At the time the ozone generating equipment is installed, again after 24 hours of operation, and annually thereafter, the air space within six (6) inches of the AQUATIC VENUE water shall be tested to determine compliance of less than 0.1 PPM gaseous ozone. Results of the test shall be maintained on site for review by the HEALTH AUTHORITY.

(8) Automatic shutdown shall occur under any condition that would result in the ozone system not operating within the established

parameters needed to achieve a 3-log inactivation of *Cryptosporidium*.

(9) The equipment shall be electrically interlocked with AQUATIC VENUE pump(s) or automated feature supply valves, such that when the ozone equipment fails to produce the required dosage as measured by ORP, the AQUATIC VENUE does not operate.

(10) If the ORP reading for the ozone system drops below 600 mV, a visual alarm or other indication shall be initiated that will alert staff on-site or remotely. Signage to notify facility management shall be adjacent to the visual alarm.

(11) In order to ensure that the supplied ozone system meets all the requirements of the standard, the manufacturer shall maintain a quality system audited on a regular basis to a recognized quality standard. The ozone system shall be supplied with the appropriate validation reports and documentation for that equipment model.

(a) Ozone validation reports shall include a graph, chart, or other documentation which clearly indicates the required operating parameters for which a 3-log inactivation is guaranteed for the system in question.

(b) This dose shall be inclusive of validation factors.

(c) System performance curves that do not include such factors are not considered validated systems.

2-504.4 SUPPLEMENTAL DISINFECTION SYSTEMS

(A) AQUATIC VENUES that do not require SECONDARY DISINFECTION SYSTEMS may install SUPPLEMENTAL DISINFECTION SYSTEMS for the purpose of enhancing overall system performance and improving water quality.

(1) SUPPLEMENTAL DISINFECTION SYSTEMS shall not be required on any AQUATIC VENUE.

(2) SUPPLEMENTAL DISINFECTION SYSTEMS are not required to meet the following requirements of a SECONDARY DISINFECTION SYSTEM:

(a) They do not need to achieve a 3-log (99.9 percent) inactivation of *Cryptosporidium parvum;* and

(b) They do not need to be able to reduce the total number of infective OOCYSTS to one OOCYST per 100 mL; and

(3) Each system shall be clearly labeled, "Supplemental Disinfection System."

(B) When UV is used as a SUPPLEMENTAL DISINFECTION SYSTEM, all requirements of Section 2-504.3(D)(2) through 2-504.3(D)(5) shall be met. Water features shall not require shut off if the supplemental UV system does not produce the required dosage.

(C) When ozone is used as a SUPPLEMENTAL DISINFECTION SYSTEM, all requirements of Section 2-504.3(E)(2) through 2-504.3(E)(7) shall be met. The maximum ORP reading shall be no greater than 900 mV.

(D) Only those systems that are EPA-registered for use as disinfectants in AQUATIC VENUES shall be permitted.

(1) Copper/silver systems, and all materials used therein, shall be suitable for their intended use.

(2) Copper/silver systems, and all materials used therein, shall be installed in accordance with all applicable requirements and manufacturer's instructions.

(E) UV light / hydrogen peroxide combination systems shall be prohibited for use in AQUATIC FACILITIES.

2-504.5 Microbiological Testing Equipment

Microbiological testing equipment and methods shall be:

(A) EPA-Approved, EPA-Accepted, EPA-Equivalent;

(B) Conforming to the latest edition of Standard Methods for the Examination of Water and Wastewater; and/or

(C) Listed and labeled to NSF/ANSI 50 by an ANSI-accredited certification organization.

2-6 Decks and Equipment

Subparts

2-601 Decks
2-602 Diving Boards and Platforms
2-603 Starting Platforms
2-604 Enclosures and Barriers
2-605 Aquatic Venue Cleaning Systems

2-601 Decks

2-601.1 DECKS shall be constructed in conformance with all applicable provisions of this Section.

(A) DECKS shall be designed to allow for required LIFEGUARD placement for BATHER surveillance and safety equipment.

(B) DECKS shall have a minimum of four (4) feet of clearance from the AQUATIC VENUE edge to fencing or other obstructions to allow for LIFEGUARD transit, roaming, or change of positioning, to maximize viewing the zone of BATHER surveillance as well as the execution of water extrication.

(C) Access points must be provided for LIFEGUARDS to transit between LIFEGUARD positions.

(D) The designer and OWNER shall consider impact the on BATHER surveillance when determining placement of structural, operational, and theme elements. These elements may include, but are not limited to:

(1) Chairs,
(2) Fencing,
(3) Landscaping elements,
(4) ADA access equipment, and
(5) AQUATIC FEATURES.

(E) Conditions between adjacent DECK materials, components, and concrete pours shall not have open joints or gaps larger than 3/16 inch wide, nor a maximum difference in vertical elevation of 1/4 inch.

(1) Any change in vertical elevation shall be considered an edge condition.

(2) Open joints or gaps larger than 3/16 inch wide or with vertical elevations exceeding 1/4 inch shall be rectified using appropriate fillers.

(3) The use of fillers such as caulk or sealant in joints or gaps shall be permitted for expansion and contraction.

(F) All DECK edges shall be beveled, rounded, or otherwise relieved to eliminate sharp corners.

(G) Joints in DECKING shall be provided to minimize the potential for cracks due to a change in elevation, for movement of the slab and for shrinkage control.

2-601.2 Finish materials for the PERIMETER DECK shall be suitable for the AQUATIC VENUE environment, non-toxic, and substantially impervious.

(A) Continuous watertight EXPANSION JOINT material shall be provided between PERIMETER DECKS and AQUATIC VENUE coping. Where applicable, the EXPANSION JOINT shall be designed and constructed so as to protect the coping and its mortar bed from damage as a result of movement of the adjoining DECK.

(B) All conditions between adjacent concrete PERIMETER DECK pours shall be constructed with watertight EXPANSION JOINTS.

(1) Joints shall be at least 3/16 inch in continuous width.

(2) The maximum allowable vertical differential across a joint shall be 1/4 inch.

2-601.3 DECKS shall be sloped away from the AQUATIC VENUE and in accordance with the following: Smooth finishes sloped at 1/8 inch per foot; moderately textured finishes sloped at 1/4 inch per foot; and heavily textured finishes sloped at 3/8 inch per foot.

(A) The slope of all DECK areas shall be in accordance with the law.

(1) All water that touches areas defined as DECK, including water originating in the AQUATIC VENUE, shall drain effectively to either perimeter areas or to DECK drains.

(2) Drainage shall remove AQUATIC VENUE water that splashes outside of the AQUATIC VENUE and beyond a PERIMETER GUTTER SYSTEM, DECK cleaning water, and rain water without leaving standing water.

(B) The placement of DECK drains, where provided, shall effectively carry water away from the AQUATIC VENUE and off the DECK without ponding.

(C) There shall be no direct connection between the DECK drains and the sanitary sewer system.

(1) DECK drains shall not drain to the AQUATIC VENUE, PERIMETER GUTTER SYSTEM, or any component of the RECIRCULATION SYSTEM.

(D) Drain receptacles shall consist of non-corrosive or corrosion-resistant materials.

(E) Drain covers shall be suitable for bare foot traffic with openings no greater than 1/2 inch and be easily removable with a simple tool to facilitate regular cleaning.

2-601.4 Materials/Slip Resistance

(A) PERIMETER DECK and POOL DECK shall be constructed with a uniform and easily cleaned surface such as concrete, tile, manufactured or acrylic surfaces.

(B) All DECKS shall have slip-resistant, textured finishes, which are not conducive to slipping under contact of bare feet in wet or dry conditions. All surfaces required to be slip-resistant shall have a minimum dynamic coefficient of friction at least equal to the

requirements of ANSI A137.1-2012 for that installation as measured by the DCOF AcuTest.

(C) Carpet and artificial turf shall be prohibited materials for PERIMETER DECK and POOL DECK.

(D) Wood shall be a prohibited material for use as PERIMETER DECK.

(E) DRY DECK shall be easily maintained and not create an IMMINENT HEALTH HAZARD.

(1) DRY DECK shall not be required to be hard-paved or impervious.

(2) Wood DECKING may be permitted for DRY DECK.

(F) Loose plant material or bedding shall not be permitted within PERIMETER DECKS. Stable materials are permitted.

2-601.5 DECK Dimensions

(A) PERIMETER DECKS shall be four (4) feet minimum of unobstructed width around the AQUATIC VENUE perimeter.

(1) PERIMETER DECK may serve as part of the DESIGNATED WALKWAY.

(2) PERIMETER DECK areas shall be flush with AQUATIC VENUE walls or copings except where special conditions exist, such as elevated beam or parapet, raised transfer walls, or as permitted by other sections of these Regulations.

(B) PERIMETER DECKS shall be provided around 90 percent of the AQUATIC VENUE perimeter except where special conditions exist as permitted by other sections of these Regulations.

(1) Narrow AQUATIC VENUES where the entire perimeter and depth of the AQUATIC VENUE are readily reachable by a reaching pole and attached shepherd's crook from the PERIMETER DECK may obstruct up to 50 percent of the perimeter.

(2) A WAIVER may be submitted addressing all access concerns regarding BATHER rescue due to DECK obstructions.

(C) An unobstructed DECK area four (4) feet minimum in width shall be provided for access around:

(1) Diving equipment;

(2) Special feature stairways (such as a WATERSLIDE);

(3) Lifeguard stands;

(4) Diving boards;

(5) Similar DECK equipment;

(6) ADA access equipment;

(7) Structural columns; and

(8) Raised edge perimeters.

(D) This unobstructed area may overlap the DESIGNATED WALKWAY.

(1) Where reasonably anticipated, queuing space shall be provided at applicable equipment to minimize encroachment into the DESIGNATED WALKWAY.

(2) Free area around equipment may consist of PERIMETER DECK and/or POOL DECK, as applicable.

(E) A continuous and unobstructed DESIGNATED WALKWAY shall be provided in conformance with the law.

(1) DECK furniture locations shall be designed not to intrude upon any DESIGNATED WALKWAY.

(2) DESIGNATED WALKWAYS shall connect all site amenities, entrances and exits.

(3) DESIGNATED WALKWAYS may consist of any combination of permitted DECK types.

2-601.6 WING WALLS or PENINSULAS

(A) WING WALLS or PENINSULAS less than 18 inches in width shall not be considered a part of the PERIMETER DECK.

(1) A WING WALL or PENINSULA greater than 18 inches wide, but less than 48 inches wide, may be used by LIFEGUARD personnel, but shall not be considered as part of the PERIMETER DECK.

(2) Any WING WALL or PENINSULA intended to be accessed by LIFEGUARDS shall be constructed of slip-resistant materials.

(B) If it is impractical to design a perimeter overflow system into the WING WALL or PENINSULA due to width or height, then the overflow system may bypass the WING WALL or PENINSULA.

(C) WING WALLS and PENINSULAS shall be considered part of the AQUATIC VENUE. WING WALLS and PENINSULAS shall not be accounted for in calculating the AQUATIC VENUE perimeter.

(D) WING WALLS and PENINSULAS shall be at or above the normal operating water level of the AQUATIC VENUE.

(E) DECK drainage shall not be required for WING WALLS or PENINSULAS as they are considered part of the AQUATIC VENUE. The tops shall be crowned to prevent standing water and sloped to the AQUATIC VENUE or PERIMETER GUTTER SYSTEM.

(F) Vertical depth markers shall be provided around WING WALLS and PENINSULAS in accordance with these Regulations.

2-601.7 ISLANDS

(A) An ISLAND not more than 18 inches in width shall be designed to discourage a person from walking on the ISLAND by not providing stairs, ladders, or bridges to the ISLAND.

(B) The surface of ISLANDS intended for foot traffic shall be slip-resistant.

(C) An ISLAND 18 inches to 48 inches wide may be allowed for use only by LIFEGUARDS.

(D) Vertical depth markers shall be provided around ISLANDS in accordance with Section 2-3018.1 and visible from all sides.

(E) Horizontal depth markings and warning signs shall also be required per Section 2-3018.1 if the ISLAND is designed for BATHER use. If the ISLAND is not designed for BATHER use, warning signs stating "No Entry" shall be required.

(F) An ISLAND designed for BATHER traffic shall be accessible by bridge, ramp, ladder, or stairway from the AQUATIC VENUE.

(G) All bridges spanning an AQUATIC VENUE or any other structures not intended for interactive play shall have a minimum clearance of eight (8) feet from the bottom of the AQUATIC VENUE and not less than four (4) feet from the top of the water to any structure overhead.

(H) Any bridge shall have a minimum 42 inch high BARRIER on both sides.

2-601.8 Domestic water hose bibs shall be provided in sufficient quantity, spacing, and type to wash down PERIMETER DECK and POOL DECK areas using a hose. All hose bibs shall be equipped with appropriate BACKFLOW prevention devices.

2-602 Diving Boards and Platforms

2-602.1 Diving boards and platforms shall be permitted only when the diving envelope and equipment conforms to the standards of one of the certifying

agencies that regulate competitive diving. Such certifying agencies include FINA, NCAA, USA Diving, and NFSHSA.

2-603 Starting Platforms

2-603.1 Starting platforms shall be installed and conform to applicable safety standards established by FINA, USA Swimming, NCAA, NFSHSA, YMCA, or other sanctioning bodies.

2-603.2 Starting platforms shall be installed in a minimum water depth of four (4) feet.

2-603.3 The leading edge of starting platforms shall have a maximum height of 30 inches above the water surface.

2-603.4 Starting platforms shall have slip-resistant tread surfaces.

2-603.5 Starting platforms shall be installed and secured per manufacturer's recommendations at all times when in use.

2-604 Enclosures and Barriers

2-604.1 The ENCLOSURE may consist of any combination of building envelopes, site walls, or fencing as provided for in this Section.

(A) ENCLOSURES shall be provided between CHEMICAL STORAGE SPACES, AQUATIC VENUE, mechanical spaces, and areas accessible to the public, in accordance with local building codes.

2-604.2 Construction Requirements

(A) ENCLOSURES for AQUATIC VENUES shall not block or encumber a required emergency egress path from other structures.

(B) Windows on a building that form part of an ENCLOSURE around an AQUATIC VENUE shall have a maximum opening width not to exceed four (4) inches.

(C) Living or lodging units shall not enter directly into a common AQUATIC VENUE ENCLOSURE.

(D) For the purposes of this Section, height shall be measured from finished grade to the top of the ENCLOSURE on the side outside of the ENCLOSURE surrounding an AQUATIC VENUE.

(1) Where a change in grade occurs at an ENCLOSURE, height shall be measured from the uppermost grade to the top of the ENCLOSURE.

(2) AQUATIC FACILITY ENCLOSURES shall not be less than six (6) feet in height for all new construction, SUBSTANTIAL ALTERATION, or any ENCLOSURE alterations.

(3) Any vertical members in the ENCLOSURE must not be more than four (4) inches apart. Any opening at the bottom of the ENCLOSURE must not be more than four (4) inches in height. Mesh style fencing must not exceed 1 3/4 inch openings.

(4) The ENCLOSURE must be installed above a fixed, permanently installed solid surface.

(5) Except where otherwise noted, all other BARRIERS not serving as part of an AQUATIC FACILITY ENCLOSURE shall not be less than 42 inches in height.

2-604.3 Gates and Doors

(A) Egress from a publicly accessible space within a building shall not open directly into the ENCLOSURE of the AQUATIC VENUE.

(B) All primary public access gates or doors serving as part of an AQUATIC FACILITY ENCLOSURE or required AQUATIC VENUE ENCLOSURE must be self-closing and self-latching from any open position.

(C) All gates or doors shall be capable of being locked from the exterior. Electronically locked gates must be equipped with a back up battery to maintain function when power is interrupted.

(D) Gates or doors shall be designed in such a way that they do not prevent egress in the event of an emergency.

(E) Gates shall be at least equal in height at top and bottom to the ENCLOSURE of which they are a component.

(F) Unattended ~~T~~turnstiles shall not form a part of an AQUATIC FACILITY ENCLOSURE.

(G) All public access gates exiting the ENCLOSURE shall not require the use of a key or tool.

(H) EXIT GATES shall swing away from the AQUATIC VENUE ENCLOSURE except where emergency egress codes require them to swing into the AQUATIC VENUE ENCLOSURE.

(I) Self-latching mechanisms:

(1) Must be located not less than 3 1/2 feet above finished grade and

(2) Shall not be operable by small children on the outside of the ENCLOSURE around the AQUATIC VENUE.

(J) For all other AQUATIC VENUES, EXIT GATES or doors shall be constructed so as to prevent unauthorized entry from outside of the ENCLOSURE around the AQUATIC VENUE.

(K) In lieu of meeting the requirements of Section 2-604, AQUATIC FACILITIES with 24-hour security by one or more persons with a physical presence at all AQUATIC VENUES within an ENCLOSURE may apply for a WAIVER to this Section.

2-604.4 INDOOR AQUATIC VENUES

(A) Building walls enclosing an INDOOR AQUATIC FACILITY may be designated as the AQUATIC FACILITY ENCLOSURE.

(B) INDOOR AQUATIC VENUES shall be securable from unauthorized entry from other building areas and the exterior.

(C) Where separate indoor and outdoor AQUATIC VENUES are located on the same site, an AQUATIC VENUE ENCLOSURE shall be provided between them. **Exception:** Where all AQUATIC VENUES are operated continuously 12 months a year on the same schedule.

2-604.5 Except as otherwise required in these Regulations, one ENCLOSURE may surround multiple AQUATIC VENUES at one facility.

(A) WADING POOLS and CHILD AMUSEMENT LAGOONS shall not require separation from other WADING POOLS and CHILD AMUSEMENT LAGOONS by a BARRIER. Refer to Section 2-1008 for additional guidance about WADING POOLS.

2-605 Aquatic Venue Cleaning Systems

2-605.1 The cleaning system provided shall not create an entanglement or suction entrapment hazard or interfere with the operation or use of the AQUATIC VENUE.

2-605.2 If there are multiple AQUATIC VENUES at one AQUATIC FACILITY, the AQUATIC FACILITY may use common cleaning equipment.

2-605.3 Use of integral vacuum systems, meaning a vacuum system that uses the main circulating pump or a dedicated vacuum pump connected to the AQUATIC VENUE with PVC piping and terminating at the AQUATIC VENUE with a flush-mounted vacuum port fitting, shall be prohibited.

2-605.4 Where used, portable vacuum cleaning equipment shall be powered by circuits having GFCIs.

2-605.5 Any ROBOTIC CLEANERS shall utilize low voltage for all components that are immersed in the AQUATIC VENUE water and be connected to a GFCI equipped circuit.

2-7 Recirculation Equipment Room

Subparts

2-701 Equipment Room

2-702 Chemical Storage Spaces

2-701 Equipment Room

2-701.1 Indoor equipment room floors shall be of concrete or other suitable material having a smooth slip-resistant finish and shall have positive drainage, including a sump drain pump if necessary. Walls shall be finished in nonabsorbent material from floor level to four (4) feet in height.

2-701.2 The following applies to all EQUIPMENT ROOMS:

(A) Floors shall have a slope toward the floor drain and/or sump drain pump adequate to prevent standing water at all times.

(B) Wall-floor junctures shall include curb construction of minimum height of four (4) inches.

(C) The opening to the EQUIPMENT ROOM or area shall be designed to provide access for all anticipated equipment.

(D) At least one hose bib with an appropriate BACKFLOW preventer shall be located in the EQUIPMENT ROOM or shall be accessible within an adequate distance of the EQUIPMENT ROOM so that a hose can service the entire EQUIPMENT ROOM.

2-701.3 The size of the EQUIPMENT ROOM or area shall provide working space to perform routine operations and equipment service.

(A) EQUIPMENT ROOMS also intended for storage shall have adequate space provided for such storage, without reducing the working spaces.

(B) EQUIPMENT ROOMS or areas shall be lighted to provide 30 FOOT CANDLES (323 lux) of illumination at floor level.

2-701.4 All electrical wiring shall conform to the current edition of the NEC. Equipment, components, and their application and installation must conform to the NRTL listing.

2-701.5 EQUIPMENT ROOM ventilation shall address:

(A) Combustion requirements;

(B) Heat dissipation from equipment;

(C) Humidity from surge or balance tanks;

(D) Ventilation to the outside; and

(E) Air quality.

2-701.6 All piping in the EQUIPMENT ROOM shall be permanently identified by its use and the AQUATIC VENUE and AQUATIC FEATURE it serves.

(A) Identification shall be provided for:

(1) Main drains and SKIMMERS;

(2) Filtered water;
(3) Make-up water;
(4) Backwash water;
(5) Disinfectant feeds;
(6) Acid (or PH) feeds;
(7) Compressed air lines;
(8) Gutters;
(9) Chemical sample piping; and
(10) AQUATIC VENUE heating lines.

(B) All piping shall be marked with directional arrows as necessary to determine flow direction.

(1) A water-resistant, easily read, wall-mounted piping *diagram* shall be furnished and installed inside the EQUIPMENT ROOM.

2-701.7 Separation from CHEMICAL STORAGE SPACES

(A) Combustion equipment, air-handling equipment, and electrical equipment shall not be exposed to air contaminated with corrosive chemical vapors.

(B) Doors between an EQUIPMENT ROOM and an INDOOR AQUATIC FACILITY shall be equipped with an automatic closer. The door, frame, and automatic closer shall be installed and maintained to ensure that the door closes completely, latches, and locks without human assistance.

(1) The locks shall require a key or combination to open from the INDOOR AQUATIC FACILITY side.

(2) The locks shall be designed and installed to be opened by one hand from the inside of the room under all circumstances, without the use of a key or tool.

(C) Doors shall be equipped with permanent signage warning against unauthorized entry.

(D) All sides of the doors shall be equipped with a gasket. The gasket shall be installed to prevent the passage of air, or vapors when the door is closed.

2-701.8 Other EQUIPMENT ROOM Requirements

(A) Where ventilation, air filtration, or space dehumidification, heating, or cooling for an INDOOR AQUATIC FACILITY is by mechanical equipment located in an EQUIPMENT ROOM, adequate access space must be provided to allow for inspection and service.

(B) Equipment may be installed in an outdoor ENCLOSURE provided the following conditions are met:

(1) Equipment must be securely installed on level concrete pads.
(2) Exposed plumbing must be protected from UV.
(3) Overhead UV protection must be provided.
(4) Unpaved areas within the ENCLOSURE shall be graded to allow for proper drainage with suitable ground cover to prevent the generation of mud in areas between equipment.

(C) Equipment installed below grade shall be equipped with stairs and an associated handrail that meets applicable building code standards.

2-702 Chemical Storage Spaces

Nothing in this Section shall be construed as providing relief from applicable requirements of fire codes, mechanical codes, electrical codes, etc.

2-702.1 If AQUATIC VENUE chemicals, acids, salt, oxidizing cleaning materials, or other corrosive or oxidizing chemicals are stored outdoors, they must be stored in a well-ventilated protective area with an installed ENCLOSURE to prevent unauthorized access as per Section 2-702.2.

(A) At least one space dedicated to chemical storage space shall be provided to allow safe storage of the chemicals present.

2-702.2 Equipment listed for outdoor use may be located in exterior CHEMICAL STORAGE SPACES as permitted.

(A) Exterior CHEMICAL STORAGE SPACES not joined to a wall of a building shall be completely enclosed by fencing that is at least six (6) feet high and meets the ENCLOSURE requirements.

(B) Fencing shall be equipped with a self-closing and self-latching gate having a permanent locking device.

2-702.3 Exterior CHEMICAL STORAGE SPACES shall be equipped with overhead UV protection.

2-702.4 Combustion Equipment in Interior CHEMICAL STORAGE SPACES

(A) No COMBUSTION DEVICE or appliance shall be installed in a CHEMICAL STORAGE SPACE, or in any other place where it will be exposed to the air from a CHEMICAL STORAGE SPACE.

(B) ***Exception:*** A COMBUSTION DEVICE or appliance which meets all of the following requirements shall be acceptable:

(1) The device or appliance is required for one or more processes integral to the function of the room, such as space heat;

(2) The device is listed for such use; and

(3) The device as installed is APPROVED by the HEALTH AUTHORITY.

2-702.5 Ozone Rooms

(A) An ozone EQUIPMENT ROOM shall not be used for storage of chemicals, solvents, or any combustible materials, other than those required for the operation of the recirculation and ozone generating equipment.

(B) Rooms which are designed to include ozone equipment shall be equipped with an emergency ventilation system capable of six air changes per hour.

(1) The exhaust intake shall be located approximately six (6) inches from the floor, on the opposite side of the room from the make-up air intake.

(2) The emergency ventilation system shall be so arranged as to run on command of an ozone-leak alarm or on command of a manual switch.

(3) The manual emergency ventilation switch shall be located outside the room and near the door to the ozone room.

(C) Ozone rooms which are below grade shall be equipped with forced-draft ventilation capable of six (6) air changes per hour.

(1) The exhaust intake shall be located approximately six (6) inches from the floor, on the opposite side of the room from the make-up air intake.

(2) The ventilation system shall be arranged to:

(a) Run automatically concurrent with the ozone equipment and for at least a time allowing for 15 air changes after the ozone equipment is stopped;

(b) Run upon activation of the ozone detection and alarm system; and

(c) Run on command of a manual switch.

(3) The manual ventilation switch shall be located outside the room and near the door to the ozone room.

(D) In addition to the signs required on all chemical storage areas, a sign shall be posted on the exterior of the entry door, stating "DANGER - GASEOUS OXIDIZER – OZONE" in lettering not less than four (4) inches high.

(E) Rooms containing ozone generation equipment shall be equipped with an audible and visible ozone detection alarm system.

(1) The alarm system shall consist of both an audible alarm capable of producing at least 85 decibels at ten (10) feet distance, and a visible alarm consisting of a flashing light mounted in plain view of the entrance to the ozone-EQUIPMENT ROOM.

(2) The ozone sensor shall be located at a height of 18-24 inches above floor level and shall be capable of measuring ozone in the range of 0-2 PPM.

(3) The alarm system shall activate when the ozone concentration equals or exceeds 0.1 PPM in the room.

(4) Activation of the alarm system shall shut off the ozone generating equipment and turn on the emergency ventilation system.

(F) Use of compressed CHLORINE gas shall be prohibited for new construction and after SUBSTANTIAL ALTERATION to existing AQUATIC FACILITIES.

2-8 Hygiene Facilities

Subparts

2-801 General

2-801.1 All design provisions shall be required for new construction or SUBSTANTIAL ALTERATION to an existing AQUATIC FACILITY.

2-801.2 AQUATIC FACILITIES shall provide HYGIENE FACILITIES that include, at a minimum, toilets, urinals, SHOWERS, hand washing sinks and other HYGIENE FIXTURES, as specified herein.

2-801.3 HYGIENE FACILITIES shall be constructed in accordance with relevant law or as modified herein.

2-801.4 The minimum numbers of toilets, urinals, hand washing sinks and other HYGIENE FIXTURES provided, excluding SHOWERS, shall be in accordance with the current building codes and standards.

2-802 Location

Except as required in Section 2-802.1 and 2-802.2, a drinking fountain, toilet, and hand washing sink shall be located no greater than 300 feet walking distance (along a path designated for pedestrian traffic) from each AQUATIC VENUE.

Exemption: Unless otherwise specified, AQUATIC VENUES located within 300 feet walking distance of all lodging or residential settings are exempt from this Section.

2-802.1 An AQUATIC VENUE designed primarily for use by children less than five (5) years of age shall have a drinking fountain, toilet, and HAND WASH STATION located no greater than 200 feet walking distance and in clear view from the nearest entry/exit of the AQUATIC VENUE.

2-802.2 SPAS shall have a drinking fountain located no greater than 100 feet walking distance from the SPA.

2-803 Design and Construction

2-803.1 The floors of HYGIENE FACILITIES and dressing areas serving AQUATIC FACILITIES shall have a smooth, easy-to-clean, impervious-to-water, slip-resistant surface. All surfaces required to be slip-resistant shall have a minimum dynamic coefficient of friction at least equal to the requirements of ANSI A137.1-2012 for that installation as measured by the DCOF AcuTest.

2-803.2 A hard, smooth, impervious-to-water, easy-to-clean base shall provide a sealed, coved juncture between the wall and floor and extend upward on the wall at least six (6) inches.

2-803.3 Floor drains shall be installed in HYGIENE FACILITIES and dressing areas where PLUMBING FIXTURES are located.

(A) Floor drain opening grill covers shall be 1/2-inch or less in width or diameter.

(B) Floors shall be sloped to drain water or other liquids.

2-803.4 Partitions and ENCLOSURES adjacent to HYGIENE FACILITIES shall have a smooth, easy-to-clean, impervious surface.

2-803.5 At least one hose bibb or other potable water source capable of connecting a hose shall be located in each HYGIENE FACILITY to facilitate cleaning.

2-804 Plumbing Fixture Requirements

2-804.1 PLUMBING FIXTURES shall be installed and operated in a manner to adequately protect the potable water supply from BACKFLOW in accordance with applicable law.

(A) PLUMBING FIXTURES shall be designed so that they may be readily and frequently cleaned, SANITIZED, and disinfected.

(B) Drinking fountains must be installed outside of HYGIENE FACILITIES.

2-804.2 CLEANSING SHOWERS

(A) The minimum number of CLEANSING SHOWERS shall be one (1) per gender for AQUATIC FACILITIES less than 4,000 square feet in collective AQUATIC VENUE surface area. An additional CLEANSING SHOWER per gender shall be added for each additional 4,000 square feet of AQUATIC VENUE surface area or portion thereof.

(B) CLEANSING SHOWERS shall be evenly distributed between genders.

(C) CLEANSING SHOWERS shall be located in a HYGIENE FACILITY near the entrance and within clear view of the AQUATIC VENUE.

(D) Entryway to private or group CLEANSING SHOWER areas shall be enclosed by a door or curtain.

(1) SHOWER doors shall be of a smooth, hard, easy-to-clean material.

(2) SHOWER curtains shall be of a smooth, easy-to-clean material.

(E) CLEANSING SHOWERS shall be supplied with soap in a soap dispenser adjacent to the SHOWER.

Exemption: AQUATIC VENUES located in lodging or residential settings shall be exempt from Section 2-804.2.

2-804.3 RINSE SHOWERS

(A) A minimum of one RINSE SHOWER shall be provided on the DECK near an entry point to the AQUATIC VENUE.
(B) Floors of RINSE SHOWERS shall be sloped to drain wastewater away from the AQUATIC VENUE and meet local applicable codes.
(C) RINSE SHOWER drains shall discharge to the sanitary sewer.
(D) RINSE SHOWERS in AQUATIC FACILITIES greater than 7,500 square feet of water surface area shall be situated adjacent to each AQUATIC VENUE entry point or arranged to encourage BATHERS to use the RINSE SHOWER prior to entering the AQUATIC VENUE.
(E) A minimum of four (4) showerheads per 50 feet of beach entry AQUATIC VENUES shall be provided as a RINSE SHOWER located not more than 30 feet from the AQUATIC VENUE or queuing area.
(F) A minimum of one RINSE SHOWER shall be provided at each entrance to a LAZY RIVER AQUATIC VENUE.
(G) A minimum of one RINSE SHOWER shall be provided at each entrance to a WATERSLIDE queue line.

2-804.4 AQUATIC FACILITIES with 7,500 square feet of water area or more may be flexible in the number of CLEANSING SHOWERS they provide based on the THEORETICAL PEAK OCCUPANCY:
(A) 25 percent of the required SHOWERS shall be CLEANSING SHOWERS,
(B) 25 percent of the required SHOWERS shall be RINSE SHOWERS, and
(C) The remaining 50 percent may be either CLEANSING or RINSE SHOWERS.

2-804.5 Non-PLUMBING FIXTURE Requirements
(A) All HYGIENE FIXTURES and appurtenances in the dressing area shall have a smooth, hard, easy-to-clean, impervious-to-water surface and be installed to allow thorough cleaning.
(B) Glass, excluding mirrors and lighting fixtures, shall not be permitted in HYGIENE FACILITIES.
(C) Mirrors and light fixtures shall be shatter resistant.
(D) If lockers are provided, they shall be installed at least 3.5 inches above the finished floor or on legs or a base at least 3.5 inches high and far enough apart to allow for cleaning and drying underneath the locker.
(E) Soap dispensers shall be securely attached adjacent to hand washing sinks and at each CLEANSING SHOWER. The dispensers shall be of all metal, plastic, or other shatterproof materials that can be readily and frequently cleaned.
(F) Hand dryers or paper towel dispensers shall be provided and securely attached adjacent to hand washing sinks. Hand dryers and paper towel dispensers shall be of all metal, plastic or other shatterproof materials that can be readily and frequently cleaned.
(G) Toilet paper dispensers shall be securely attached to wall or partition adjacent to each toilet.
(H) In female HYGIENE FACILITIES, covered receptacles adjacent to each toilet shall be provided for disposal of used feminine hygiene products.
(I) A minimum of one (1) hands-free trash receptacle shall be provided in areas adjacent to hand washing sinks.

2-805 Provisions of Suits, Towels, and Shared Equipment

AQUATIC FACILITIES supplying reusable suits, towels, and/or shared equipment shall provide adequate equipment and space for cleaning, sanitizing, drying, and storing of these materials.

2-806 Foot Baths are Prohibited

Foot Baths are standing water in which BATHERS or aquatics staff rinse their feet. Foot baths are prohibited.

2-9 Water Supply and Wastewater Disposal

Subparts

2-901 Water Supply

2-901.1 Water serving an AQUATIC FACILITY shall be supplied from a potable water source.

(A) Other water sources such as lakes or springs may be APPROVED to serve an AQUATIC FACILITY by the HEALTH AUTHORITY.

(B) Use of condensate water, collected rain water, or other reclaimed water for water serving an AQUATIC VENUE is prohibited.

2-901.2 The water supply shall have sufficient capacity to simultaneously serve all PLUMBING FIXTURES.

2-901.3 The water supply shall have sufficient capacity and pressure to refill the AQUATIC VENUE to the operating water level after backwashing filters and after any splashing or evaporative losses within one hour if the AQUATIC VENUE is operational at the time of the backwash.

2-901.4 AQUATIC FACILITIES not having dependable DISINFECTION and filtration systems or failing to maintain such systems in accordance with these Regulations shall provide weekly bacteriological testing results from a State certified laboratory of water samples taken from each AQUATIC VENUE. 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 a positive test (confirmed test) for total 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.

2-902 Fill Spout

2-902.1 A fill spout used at an AQUATIC VENUE shall be located so it is not a safety hazard to BATHERS.

2-902.2 The open end of a fill spout shall not have sharp edges or protrude more than two (2) inches beyond the edge of the AQUATIC VENUE.

2-902.3 The open end of a fill spout shall be separated from the water by an air gap of at least 1.5 pipe diameters measured from the pipe outlet to the AQUATIC VENUE.

2-903 Cross-Connection Control

2-903.1 The potable water supply serving an AQUATIC VENUE shall be protected against BACKFLOW by one of the following:

(A) An acceptable air gap consisting of a vertical distance of not less than two pipe diameters of the water supply pipe or six (6) inches, whichever is greater, over the lowest free-flowing discharge point of the receiving pipe, tank, or vessel. Splash guards that are open to the atmosphere may be used around the air gap; or

(B) An APPROVED RPZ or a pressurized vacuum breaker (PVB) BACKFLOW preventer installed according to the plumbing code and the HEALTH AUTHORITY. All BACKFLOW prevention devices installed must be tested on an annual basis.

2-904 Sanitary Wastes

Wastewater from all PLUMBING FIXTURES in the entire AQUATIC FACILITY shall be discharged to a sanitary sewer system.

2-905 Pool Wastewater

2-905.1 Wastewater from an AQUATIC VENUE, including filter backwash water, shall be discharged indirectly, via a sump pit through an air-gap to a sanitary sewer system having sufficient capacity to collect and treat wastewater.

(A) Wastewater shall not be directed to storm water systems or surface waters.

(B) A water recovery and reuse system may be submitted to the HEALTH AUTHORITY for review and approval.

2-905.2 The wastewater disposal system shall have sufficient capacity to receive wastewater without flooding when filters are cleaned or when the AQUATIC VENUE is drained.

2-905.3 A separate line equipped with a valve shall be installed to bypass the filter and discharge to waste indirectly for the purpose of draining the AQUATIC VENUE.

2-905.4 The sump pit must be located where it does not impede access to equipment or present a hazard. Access to the sump pit must not be obstructed. Any cover placed over the sump pit shall allow for regular inspection and maintenance, and shall not impede the flow of wastewater into the pit.

2-10 Special Use Aquatic Venues

Subparts

2-1001 General Requirements

2-1001.1 SPECIAL USE AQUATIC VENUES shall comply with the applicable requirements stated in these Regulations as well as the additional provisions or reliefs of this Section.

2-1001.2 The DESIGN PROFESSIONAL or licensed contractor, shall provide information to adequately support why the SPECIAL USE AQUATIC VENUE does not meet the definition and use characteristics of other categories of AQUATIC VENUES or POOLS listed in these Regulations.

2-1001.3 A WAIVER must be submitted when the design specifications do not meet the standards outlined in Section 2. When submitting a WAIVER, the DESIGN PROFESSIONAL or licensed contractor, shall provide justification for design parameters that do not meet the design standards and construction requirements listed in these Regulations. See Section 5-3 for WAIVER requirements.

2-1002 Spas

2-1002.1 The maximum water depth in SPAS shall be four (4) feet measured from the designed static water line unless designed for special use and purposes APPROVED by the HEALTH AUTHORITY.

(A) The water depth for exercise SPAS shall not exceed six feet six inches (6 ft. 6 in) measured from the designed static water line.

(B) The maximum submerged depth of any seat or sitting bench shall be 28 inches measured from the water line.

2-1002.2 A SPA shall have one or more suitable, slip-resistant handhold(s) around the perimeter and not over 12 inches above the water line. The handhold(s) may consist of bull-nosed coping, ledges or DECKS along the immediate top edge of the SPA; ladders, steps, or seat ledges; or railings.

2-1002.3 Where SPA depths are greater than 24 inches, interior steps or stairs shall be provided in accordance with Section 2-304.

(A) Each set of steps shall be provided with at least one handrail to serve all treads and risers.

(1) A point of egress equipped with a handrail must be provided for every 50 feet of perimeter or major portion thereof.

(B) Seats or benches may be provided as part of these steps.

(C) Approach steps on the exterior of a SPA wall extending above the DECK shall also be required unless the raised SPA wall is 19 inches or less in height above the DECK and it is used as a transfer tier or pivot-seated entry.

2-1002.4 A four (4) foot wide, continuous, unobstructed PERIMETER DECK shall be provided on two consecutive or adjacent sides of the SPA. A minimum of fifty percent (50%) of the SPA perimeter must remain unobstructed.

(A) SPAS located adjacent to other AQUATIC VENUES must meet the PERIMETER DECK requirements and provide an effective means to prevent cross contamination of water between the AQUATIC VENUES.

(B) Elevated SPAS may be located adjacent to another AQUATIC VENUE as long as there is an effective BARRIER between the SPA and the adjacent AQUATIC VENUE.

(1) If an effective BARRIER is not provided, a minimum distance of four (4) feet between the AQUATIC VENUE and SPA is required.

2-1002.5 Water temperatures shall not exceed 104°F.

2-1002.6 A means to drain the SPA shall be provided to allow frequent draining and cleaning.

2-1002.7 All plumbing associated with the jet system must be independent from the plumbing for the filtration system.

2-1002.8 Suction outlets associated with the jet system must be of an UNBLOCKABLE DRAIN COVER design or have a minimum of two outlets separated by not less than three (3) feet that meet the following requirements:

(A) The outlets may be located on separate planes;

(B) The outlets shall be connected to a single branch line piped to provide haudraulic balance between the outlets; and

(C) The branch lines shall not be valved so as to be capable of operating independently.

2-1002.9 An air induction system, when provided, shall prevent water back up that could cause electrical shock hazards. Air intake sources shall not permit the introduction of toxic gases or other contaminants.

2-1002.10 The agitation system shall be connected to a minute timer that does not exceed 15 minutes and shall be located out of reach of a BATHER in the SPA.

2-1002.11 All SPAS shall have a clearly labeled emergency shutoff or control switch for the purpose of stopping the motor(s) that provide power to the RECIRCULATION SYSTEM and hydrotherapy or agitation system. The emergency shutoff shall be installed and be readily accessible to BATHERS in accordance with the NEC.

2-1003 Waterslides and Landing Pools

2-1003.1 The following recognized design and construction standards for WATERSLIDES shall be adhered to:

(A) The design engineer shall address compliance with these standards and must provide documentation and/or certification that the WATERSLIDE design is in conformance with these standards:

(1) ASTM F2376-13 Standard Practice for Classification, Design, Manufacture, Construction, and Operation of Water Slide Systems; and

(2) ASTM F2469-09 Standard Practice for Manufacturer, Construction, Operation, and Maintenance of AQUATIC Play Equipment.

(B) Signs indicating riding instructions, warnings, and requirements in accordance with the manufacturer's recommendations shall be posted at the WATERSLIDE entry.

2-1003.2 FLUMES

(A) FLUME surfaces shall be inert, nontoxic, smooth, and easily cleaned.

(B) All FLUME valleys and dips shall have proper drainage, safety measures that insure a rider cannot fall from the FLUME, and a means of egress in the event the ride malfunctions or a rider stops on the ride.

2-1003.3 FLUME Exits

(A) The exit of any FLUME must be designed to ensure that BATHERS enter the LANDING POOL or SLIDE RUNOUT at a safe speed and angle of entry.

(B) If a WATERSLIDE has two or more FLUMES and there is a point of intersection between the centerlines of any two FLUMES, the distance between that point and the point of exit for each intersecting FLUME must not be less than the SLIDE manufacturer's recommendations and ASTM F2376.

2-1003.4 Exit into LANDING POOLS

(A) WATERSLIDES shall be designed to terminate at or below water level, except for DROP SLIDES unless otherwise permitted by the WATERSLIDE manufacturer and ASTM F2376.

(B) WATERSLIDES shall be perpendicular to the wall of the AQUATIC VENUE at the point of exit unless otherwise permitted by the WATERSLIDE manufacturer.

(C) WATERSLIDES shall be designed with an exit system which shall be in accordance with the WATERSLIDE manufacturer's recommendations and ASTM F2376 and provides for safe entry into the LANDING POOL or WATERSLIDE RUNOUT.

(D) The FLUME exits shall be in accordance with the WATERSLIDE manufacturer's recommendations and ASTM F2376.

(E) The distance between the point of exit and the side of the AQUATIC VENUE opposite the BATHERS as they exit, excluding any steps, shall not be less than the WATERSLIDE manufacturer's recommendations and in accordance with ASTM F2376.

2-1003.5 LANDING POOLS

(A) If steps are provided instead of exit ladders or RECESSED STEPS with grab rails, they shall be installed at the opposite end of the LANDING POOL from the FLUME exit and a handrail shall be provided in accordance with Sections 2-304 to 2-308.

(B) If the WATERSLIDE FLUME ends in an AQUATIC VENUE used for swimming, the landing area shall be divided from the rest of the AQUATIC VENUE by a float line, WING WALL, PENINSULA or other similar feature to prevent collisions with other BATHERS.

2-1003.6 A PERIMETER DECK shall be provided along the exit side of the LANDING POOL.

2-1003.7 A walkway, steps, stairway or ramp shall be provided between the LANDING POOL and the top of the FLUME.

2-1003.8 WATERSLIDE RUNOUTS, if used, shall have a planned means of egress, unless one of the walls of the RUNOUT is not more than 19 inches in height. WATERSLIDE RUNOUTS shall be designed in accordance with the SLIDE manufacturer's recommendations and ASTM F2376.

2-1003.9 DROP SLIDES

(A) There shall be a SLIDE landing area in accordance with the SLIDE manufacturer's recommendations and ASTM F2376.

(B) This area shall not infringe on the landing area for any other SLIDE, diving equipment, or any other minimum AQUATIC VENUE clearance requirements.

(C) Steps shall not infringe on this area.

(D) The minimum required water depth shall be a function of the vertical distance between the terminus of the SLIDE surface and the water surface of the LANDING POOL.

(E) The minimum required water depth shall be in accordance with the SLIDE manufacturer's recommendations and ASTM F2376.

2-1003.10 POOL SLIDES

(A) All SLIDES installed as an appurtenance to an AQUATIC VENUE shall be designed, constructed, and installed to provide a safe environment for all BATHERS utilizing the AQUATIC VENUE in accordance with applicable ASTM and CPSC standards.

(B) Components used to construct a POOL SLIDE shall be non-toxic and compatible with the environment contacted under normal use.

(C) Water depth at the SLIDE terminus shall be determined by the SLIDE manufacturer.

(D) Clear space shall be maintained to the POOL edge and other features per manufacturer requirements.

(1) The landing area of the SLIDE shall be protected through the use of a float line, WING WALL, PENINSULA or other similar impediment to prevent collisions with other BATHERS.

(2) Netting or other BARRIERS shall be provided to prevent BATHER access underneath POOL SLIDES where sufficient clearance is not provided.

(3) Such netting or other BARRIER shall be designed such that any underwater opening does not allow for the passage of a four (4) inch ball and no opening can create a finger entrapment.

2-1004 Wave Pools

2-1004.1 Access

(A) BATHERS must gain access to the WAVE POOL at the shallow or beach end with the exception of an allowable ADA designated entry point.

(1) The sides of the WAVE POOL shall be protected from unauthorized entry into the WAVE POOL by the use of a fence or other comparable BARRIER.

(2) Handrails associated with ADA accessible entries shall be designed in such a way that they do not present a potential for injury or entrapment with WAVE POOL BATHERS.

(B) A PERIMETER DECK shall not be required around 100 percent of the WAVE POOL perimeter. A PERIMETER DECK shall be provided where BATHERS gain access to the WAVE POOL at the shallow or beach end and in locations where access is required for LIFEGUARDS.

(C) WAVE POOLS shall be provided with handholds at the static water level or not more than six (6) inches above the static water level that shall be:

(1) Continuous around the WAVE POOL'S perimeter except at zero depth beach entries, water depths less than 24 inches, or areas roped off, not allowing BATHER access;

(2) Self-draining;

(3) Installed so that the outer edge is flush with the WAVE POOL wall; and

(4) Designed to ensure that body extremities will not become entangled during wave action.

(D) RECESSED STEPS and handrails shall be provided at one or more locations along the wall of the WAVE POOL. The RECESSED STEPS and handrails must extend down the wall so that they will be easily accessible during wave generation at the lowest water level. The distance between the handrail and the wall must not exceed six (6) inches.

(E) Ladders shall not be allowed along the walls of the WAVE POOL due to the entrapment potential.

(F) WAVE POOLS shall be fitted with a float line located to restrict access to the caisson wall. Safety rope and float lines typically required at shallow to DEEP WATER transitions shall not apply to WAVE POOLS.

2-1004.2 Safety

(A) Proper storage shall be provided for life jackets and all other equipment used in the WAVE POOL that will allow for thorough drying to prevent mold and other biological growth.

(B) A minimum of two (2) emergency shut-off switches to disable the wave action shall be provided, one on each side of the WAVE POOL. These switches shall be clearly labeled and readily accessible to LIFEGUARDS.

(C) A sign stating "NO DIVING" in contrasting letters not less than four (4) inches in height must be posted in a conspicuous place.

(D) Caisson BARRIERS shall be provided for all WAVE POOLS that prevent the passage of a ball two (2) inches in diameter.

2-1005 Therapy Pools

2-1005.1 Floor slope may exceed one (1) foot in 12 feet for water shallower than five (5) feet. Break points in floor slope shall be identified with a contrasting band consistent with Section 2-3018.4(A).

2-1005.2 Hydrotherapy or jet systems shall be independent of the recirculation, filtration, and heating systems.

2-1005.3 Special equipment may be allowed by the HEALTH AUTHORITY with proper justification.

2-1006 Lazy Rivers

2-1006.1 Handrails, steps, stairs and propulsion jets for LAZY RIVERS shall not protrude into the river.

2-1006.2 Means of access/egress shall be provided at 150 foot intervals around the LAZY RIVER.

(A) A handhold in compliance with Section 2-3013 shall be required on at least one side of the LAZY RIVER.

(B) A DECK shall be provided along the entire length of the LAZY RIVER.

(C) The DECK shall be allowed to alternate sides of the LAZY RIVER.

(D) Obstructions around the perimeter of the LAZY RIVER, such as bridges or landscaping, shall be allowed provided they do not impact lifeguarding sight lines or rescue operations.

(E) All bridges spanning a LAZY RIVER shall have a minimum clearance of both eight (8) feet from the bottom of the LAZY RIVER and four (4) feet above the entire water surface with any structure overhead.

2-1007 Interactive Water Play Venues

2-1007.1 INTERACTIVE WATER PLAY VENUES shall have a slip-resistant and easily cleanable surface. Any manufactured surfacing shall be deemed suitable by the manufacturer for aquatic and chlorinated environments.

2-1007.2 The INTERACTIVE WATER PLAY VENUE shall be properly sloped so that only water from the AQUATIC FEATURES flows back to the INTERACTIVE WATER PLAY VENUE collection tank.

(A) Areas adjacent to the INTERACTIVE WATER PLAY VENUE shall be sloped away from the collection drains.

(B) The slope of the INTERACTIVE WATER PLAY VENUE shall be sufficient to prevent standing water from collecting on the pad.

2-1007.3 The size, number and locations of the INTERACTIVE WATER PLAY VENUE drains shall be determined and specified so as to assure water does not accumulate on the INTERACTIVE WATER PLAY VENUES.

(A) Flow through the drains to the INTERACTIVE WATER PLAY VENUE collection tank shall be under gravity.

(B) Direct suction outlets from the INTERACTIVE WATER PLAY VENUE shall be prohibited.

2-1007.4 Openings in the grates covering the drains shall not exceed 1/2 inches wide. Gratings shall not be removable without the use of tools.

2-1007.5 The INTERACTIVE WATER PLAY VENUE collection tank shall be designed to provide ready access for cleaning and inspections, and

(A) The INTERACTIVE WATER PLAY VENUE collection tank shall be capable of complete draining.

(B) The access hatch or lid shall be locked or require a tool to open.

2-1007.6 DECK Area

(A) INTERACTIVE WATER PLAY VENUES shall be kept free of landscape debris by either:

(1) Eight (8) feet of DECK area,

(2) Raised curbs, or

(3) Raised planters.

(B) The DECK shall be of a uniform, easily cleaned, impervious material.

(C) The DECK shall be protected from surface runoff.

2-1007.7 A BARRIER shall be provided to separate an INTERACTIVE WATER PLAY VENUE from another body of water within the same facility. ***Exception:*** The INTERACTIVE WATER PLAY VENUE is separated by a distance of at least 15 feet from other bodies of water.

2-1007.8 If an AQUATIC FACILITY only consists of an INTERACTIVE WATER PLAY VENUE, then the requirements for an ENCLOSURE shall not apply unless otherwise deemed necessary by the HEALTH AUTHORITY.

2-1007.9 Spray features shall be designed and installed to be seen clearly, so as not to be a hazard to BATHERS due to water velocity from the spray feature discharge, or other safety hazards.

2-1007.10 Maximum velocity at the orifice of the spray feature nozzle shall not exceed 20 feet per second.

2-1007.11 Depth markings and warning signs are not required for INTERACTIVE WATER PLAY VENUES.

2-1007.12 NEC swimming POOL requirements shall apply to INTERACTIVE WATER PLAY VENUES.

2-1008 Wading Pools and Child Amusement Lagoons

2-1008.1 A BARRIER shall be provided to separate a WADING POOL or CHILD AMUSEMENT LAGOON from other AQUATIC VENUES.

(A) The BARRIER shall not be required to completely surround the WADING POOL or CHILD AMUSEMENT LAGOON if the shortest distance of travel between the WADING POOL or CHILD AMUSEMENT LAGOON around the BARRIER to the other AQUATIC VENUE is a minimum of 15 feet.

(B) WADING POOLS and CHILD AMUSEMENT LAGOONS near other WADING POOLS or CHILD AMUSEMENT LAGOONS shall not be required to be separated by a BARRIER.

(C) Features and devices installed in a CHILD AMUSEMENT LAGOON shall be smooth, easily cleanable and of durable design intended for such use.

2-1008.2 Underwater lights shall not be installed in WADING POOLS or CHILD AMUSEMENT LAGOONS.

2-1009 Artificial Swimming Lagoons

2-1009.1 The DESIGN PROFESSIONAL shall consult with the HEALTH AUTHORITY before the preparation and submission of any engineering plans or specifications for an ARTIFICIAL SWIMMING LAGOON.

2-1009.2 An ARTIFICIAL SWIMMING LAGOON may deviate from other provisions of these Regulations through the submission of a WAIVER addressing all safety concerns generated by the deviation from regulatory requirements, if its design and construction are within the limits of sound engineering practice and present no health or safety hazards.

2-10010 Surf Pools

2-10010.1 A SURF POOL may deviate from other provisions of these Regulations through the submission of a WAIVER addressing all safety concerns generated by the deviation from regulatory requirements, if its design and construction are within the limits of sound engineering practice and present no health or safety hazards.

2-10011 Isolation And Flotation Units

2-10011.1 The unit must be designed or ventilated to prevent any hazardous concentration of gases or vapors from disinfectants under all circumstances of operation.

2-10011.2 Each unit must be located in a separate room equipped with an individual SHOWER.

2-10012 Natural Bathing Places

2-10012.1 A PERMIT to operate a NATURAL BATHING PLACE must be obtained from the HEALTH AUTHORITY.

(A) Approval and operation of a NATURAL BATHING PLACE will be based upon the result of a sanitary survey of the site and the results of the weekly microbiological testing of the water of the bathing area in accordance with this Section.

(B) The flow of water supplying a bathing beach or the volume of water in a body of water on which a beach is located must be sufficient to provide at least 500 gallons of water per BATHER when the greatest number of BATHERS are in the water.

(C) Evidence of human-caused pollution, floating debris, sludge accumulation and similar gross pollutants will disqualify the site as an

acceptable bathing area until such pollutants are completely and permanently eliminated.

(D) Water samples shall be submitted to a state-licensed laboratory each week. Such samples must meet the following criteria: *E. coli* at a geometric of 126 CFU per 100 mL and an STV (single test value) of 410 CFU per 100 mL measured using EPA Method 1603, or any other equivalent method that measures E. coli.

(E) There must be a minimum of 40 square feet of beach area per BATHER.

(F) The slope of the bottom of the beach area must be gradual and be such as to not create a safety hazard to the PATRON of the beach. The area floor must be free of physical hazards and obstructions.

(G) Failure to meet any of the criteria noted above (B)-(F) shall result in the immediate closure of the NATURAL BATHING PLACE.

2-10012.2 A NATURAL BATHING PLACE may require a WAIVER to address unique safety concerns inherent to the NATURAL BATHING PLACE.

2-10012.3 The perimeter of the designated swimming area must be marked with buoys in the water and signage at either end of the beach designating "No swimming beyond this point."

2-10012.4 HYGIENE FACILITIES must be constructed in accordance with the provisions of Section 2-8.

2-10012.5 There must be telephone connections and transportation facilities available for emergency use.

2-10013 Deluge Showers

2-10013.1 In addition to the general AQUATIC VENUE requirements stated in these Regulations, deluge showers shall comply with the additional provisions or reliefs of this section.

2-10013.2 Shall be constructed to achieve a 30 minute maximum TURNOVER.

2-10013.3 Signage must be posted in the immediate vicinity declaring that the SHOWER utilizes re-circulated water.

2-10014 Innovative Designs

An AQUATIC VENUE utilizing an innovative design may be APPROVED by the HEALTH AUTHORITY if its design and construction present no health or SAFETY hazard to the public. Applications and supporting documentation must be stamped by an engineer or architect licensed in Nevada. The HEALTH AUTHORITY will require written WAIVER(S) prior to approval.

SECTION 3 Facility Operation and Maintenance

Parts

3-1 Operating Permits

Subparts

The provisions of this Section apply to all AQUATIC FACILITIES covered by these Regulations regardless of when constructed, unless otherwise noted.

3-101 Owner Responsibilities

3-101.1 Prior to opening for use, the AQUATIC FACILITY OWNER shall apply to the HEALTH AUTHORITY for a PERMIT to operate each AQUATIC VENUE.

3-101.2 A separate PERMIT is required for each newly constructed or SUBSTANTIALLY ALTERED AQUATIC VENUE at an existing AQUATIC FACILITY.

3-101.3 Before an initial PERMIT to operate is issued, the following procedures shall be completed:

(A) The AQUATIC FACILITY OWNER has demonstrated the AQUATIC FACILITY, including all newly constructed or SUBSTANTIALLY ALTERED AQUATIC VENUES, is in compliance with the requirements of these Regulations;

(B) An initial inspection has been conducted; and

(C) The HEALTH AUTHORITY has APPROVED the AQUATIC FACILITY to be open to the public.

3-101.4 The PERMIT to operate shall:

(A) Be issued in the name of the OWNER;

(B) Be specific to a single AQUATIC VENUE; and

(C) Specify the period of time APPROVED by the HEALTH AUTHORITY.

3-101.5 The AQUATIC FACILITY OWNER shall renew all PERMITS to operate annually according to the schedule established by the HEALTH AUTHORITY.

3-101.6 The PERMIT to operate may be withheld, revoked, or denied by the HEALTH AUTHORITY for noncompliance of the AQUATIC FACILITY with the requirements of these Regulations and failure to pay required fees associated with the PERMIT.

3-101.7 The OWNER of an AQUATIC FACILITY is responsible for the facility being operated, maintained, and managed in accordance with the requirements of these Regulations.

3-102 Permits

3-102.1 The PERMIT to operate shall be posted at the AQUATIC FACILITY in a location conspicuous to the public or immediately available for review upon request.

3-102.2 Operation of an AQUATIC FACILITY without a PERMIT shall be prohibited.

3-102.3 The HEALTH AUTHORITY may order a newly constructed or SUBSTANTIALLY ALTERED AQUATIC VENUE without or outside of an APPROVED PERMIT to close until the AQUATIC FACILITY has obtained an APPROVED PERMIT.

3-2 Aquatic Facility Operation and Maintenance

Subparts

3-201 Closure and Reopening

3-202 Preventative Maintenance Plan

3-201 Closure and Reopening

3-201.1 If an AQUATIC VENUE is not open for use the following conditions shall be met to protect health and safety:

(A) Where the AQUATIC VENUE has a separate ENCLOSURE per Section 2-604:

(1) The water shall be recirculated and treated to meet the criteria of these Regulations;

(2) The water shall be drained; or

(3) An APPROVED safety cover that is listed and labeled to ASTM F1346-91 by an ANSI-accredited certification organization shall be installed provided no public health nuisances are present.

(B) Where the AQUATIC VENUE does not have a separate ENCLOSURE per Section 2-604 and other parts of the AQUATIC FACILITY are open for use:

(1) The water shall be recirculated and treated to meet the criteria of these Regulations and the AQUATIC VENUE shall be staffed to keep BATHERS out; or

(2) An APPROVED safety cover that is listed and labeled to ASTM F1346-91 by an ANSI-accredited certification organization shall be installed provided no public health nuisances are present or created.

(C) Where the AQUATIC VENUE does not have a separate ENCLOSURE per Section 2-604, and the AQUATIC FACILITY is closed for use:

(1) The water shall be recirculated and treated to meet the criteria of these Regulations;

(2) The water shall be drained; or

(3) An APPROVED safety cover that is, listed and labeled to ASTM F1346-91 by an ANSI-accredited certification organization shall be installed provided no public health nuisances are present.

3-201.2 An OWNER or operator of a closed AQUATIC VENUE shall verify that the AQUATIC VENUE meets all applicable criteria of these Regulations before reopening the AQUATIC VENUE.

3-202 Preventive Maintenance Plan

3-202.1 Written Plan

(A) A written comprehensive preventive maintenance plan for each AQUATIC VENUE shall be available at the AQUATIC FACILITY.

(B) The AQUATIC FACILITY preventive maintenance plan shall include details and frequency of the OWNER/operator's planned routine facility inspection, maintenance, and replacement of recirculation and water treatment components.

3-202.2 Facility Documentation

(A) A copy of the APPROVED plans and specifications for each AQUATIC VENUE constructed after the adoption of these Regulations shall be available at the AQUATIC FACILITY.

(B) A comprehensive inventory of all mechanical equipment associated with each AQUATIC VENUE shall be available at the AQUATIC FACILITY.

(C) This inventory shall include:

(1) Equipment name and model number,

(2) Manufacturer and contact information,

(3) Local vendor/supplier and technical representative, if applicable, and

(4) Replacement or service dates and details.

(D) Operation manuals for all mechanical equipment associated with each AQUATIC VENUE shall be available at the AQUATIC FACILITY. If no manufacturer's operation manual is available, then the AQUATIC FACILITY should create a written document that outlines standard operating procedures for maintaining and operating the piece of equipment.

3-3 Aquatic Venue Structure

Subparts

3-301 Depth Markers

3-302 Aquatic Venue Shell and Interior Surface Maintenance

3-301 Depth Markers

3-301.1 Depth markers shall be provided in locations in accordance with Section 2-3018 and maintained.

3-301.2 "No Diving" markers shall be provided in accordance with Section 2-3018 and maintained.

3-302 Aquatic Venue Shell and Interior Surface Maintenance

3-302.1 Cracks shall be repaired when they may increase the potential for:

(A) Leakage,

(B) Trips or falls,

(C) Lacerations, or

(D) Impact the ability to properly clean and maintain the AQUATIC VENUE area.

3-302.2 Surface cracks under 1/8 inch wide shall be documented and monitored for any movement or change including opening, closing, and/or lengthening.

3-302.3 Any sharp edges shall be removed.

3-302.4 When cracks or chips in the finish expose BATHERS to the AQUATIC VENUE shell, the AQUATIC VENUE must be repaired or resurfaced prior to reopening for use.

3-4 Indoor/Outdoor Environment

Subparts

3-401 Lighting

3-401.1 Lighting Maintained

(A) Lighting systems, including emergency lighting, shall be maintained in all PATRON and maintenance areas, to ensure the required lighting levels are met as specified in Section 2-401.

(B) The AQUATIC FACILITY shall not be open if light levels are such that the main drain is not visible as specified in Section 3-506.

(C) Underwater lights, where provided, shall be operational and maintained as designed. Branch circuits that supply underwater lights operating at more than the Low Voltage Contact Limit as defined in NEC 680.2 must be GFCI protected.

(D) Operation of an unprotected underwater light circuit shall be prohibited.

(E) Damage to underwater lighting of any kind shall result in the disabling of all applicable electrical connections utilizing a lock out tag out procedure or the ENCLOSURE shall be closed until repairs have been completed. If a significant portion of the AQUATIC FACILITY's underwater lighting is affected, the AQUATIC FACILITY shall close to night swimming until all repairs have been completed.

3-401.2 Glare

(A) The AQUATIC FACILITY OWNER shall ensure that glare conditions are assessed to ensure that the AQUATIC VENUE bottom and objects in the AQUATIC VENUE are clearly visible throughout operating hours.

(B) If the AQUATIC VENUE requires LIFEGUARDS, the AQUATIC FACILITY OWNER shall ensure that glare conditions are assessed from each LIFEGUARD STATION to ensure that the AQUATIC VENUE bottom and objects in the AQUATIC VENUE are clearly visible throughout operating hours.

(C) Windows and lighting equipment shall be adjusted, if possible, to minimize glare and excessive reflection on the water surface.

3-401.3 Night swimming shall be prohibited unless required light levels in accordance with Section 2-401 are provided. Night swimming shall be considered one half hour before sunset to one half hour after sunrise.

3-401.4 Emergency lighting shall be tested and maintained according to manufacturer's recommendations.

3-402 Indoor Aquatic Facility Ventilation

3-402.1 AIR HANDLING SYSTEMS shall be maintained and operated by the OWNER/operator to protect the health and safety of the AQUATIC FACILITY'S PATRONS.

3-402.2 AIR HANDLING SYSTEMS shall be maintained and operated to comply with all requirements of the original system design, construction, and installation.

3-402.3 Indoor Facility Areas

(A) The AIR HANDLING SYSTEM operation and maintenance requirements shall apply to an INDOOR AQUATIC FACILITY including:
(1) The AQUATIC VENUES, and
(2) The surrounding BATHER and SPECTATOR/STADIUM SEATING area;
(B) But does not include:
(1) Mechanical rooms,
(2) HYGIENE FACILITIES and locker rooms, and
(3) Any associated rooms which have a direct opening to the AQUATIC FACILITY.

3-402.4 The ventilation system must be capable of preventing the accumulation of condensation, CHLORAMINES, and microbial growth.

3-403 Electrical

3-403.1 Electrical Repairs

(A) Repairs or alterations to electrical equipment and associated equipment shall be in accordance with applicable law.
(B) All defects in the electrical system shall be immediately repaired by a qualified PERSON.
(C) Electrical wiring, whether permanent or temporary, shall comply with applicable law.

3-404 Emergency Exit

Emergency exit routes shall be established for both indoor- and outdoor facilities and be maintained so that they are well lit, unobstructed, and accessible at all times.

3-405 Plumbing

3-405.1 Water Supply

(A) All plumbing shall be maintained in good repair with no leaks or discharge.
(B) Potable water shall be available at all times to PATRONS.
(C) Water introduced into the AQUATIC VENUE, either directly or to the RECIRCULATION SYSTEM, shall be supplied with appropriate BACKFLOW prevention.

3-405.2 Drinking Fountains

(A) Drinking fountains shall be maintained clean and in good repair.
(B) Drinking fountains shall have sufficient water pressure to allow correct adjustment to accommodate water dispensing to prevent PATRON facial contact with common surfaces and prevent water from landing outside the catch basin.

3-405.3 Waste Water

(A) AQUATIC VENUE waste water, including backwash water and cartridge cleaning water, shall be disposed of in accordance with applicable law.
(B) Waste water and backwash water shall not be returned to an AQUATIC VENUE or the AQUATIC FACILITY'S water treatment system.
(C) Filter backwash lines, DECK drains, and other drain lines connected to the AQUATIC FACILITY or the AQUATIC FACILITY'S RECIRCULATION SYSTEM shall be discharged through an APPROVED air gap.
(D) No standing water shall result from any discharge, nor shall it create a nuisance, offensive odors, stagnant wet areas, or an environment for the breeding of insects.

3-405.4 Removal of water from the AQUATIC VENUE and replacement with make-up water shall be performed as needed to maintain water quality.

3-406 Solid Waste

3-406.1 Outside trash, recycling receptacles and storage areas shall be maintained in good repair and clean condition.

3-406.2 Solid waste and recycled materials shall be removed at a frequency to prevent the attraction of vermin or cause odors and be disposed of in compliance with applicable law.

3-407 Decks

3-407.1 Food Preparation and Consumption

(A) Food preparation and cooking shall only be allowed in designated areas as specified in these Regulations.

(B) BATHERS shall not eat while at an AQUATIC VENUE except in designated areas located at least 4 feet from the water's edge. Beverages in a durable covered container may be consumed while in or partially in the AQUATIC VENUE.

(C) Swim-up bars or gaming areas, when utilized, shall provide facilities for BATHERS to place food and drinks on a surface which can be SANITIZED and use spill resistant containers to prevent the introduction of food or drink into the AQUATIC VENUE water.

3-407.2 Glass

(A) Glass food and beverage containers shall be prohibited in PATRON areas of AQUATIC FACILITIES.

(B) Glass furniture shall be prohibited in an AQUATIC FACILITY.

3-407.3 DECK Maintenance

(A) The PERIMETER DECK shall be maintained free from obstructions, including PATRON seating, to preserve space required for lifesaving and rescue.

(B) Diaper changing shall be prohibited on the DECK.

(C) DECK areas shall be cleaned daily and kept free of debris, vermin, and vermin harborage.

(D) DECK surfaces shall be maintained to their original design slope and integrity.

(E) Cracks shall be repaired when they increase the potential for:

(1) Trips or falls,

(2) Lacerations, and/or

(3) Impact the ability to properly clean and maintain the DECK area.

(F) DECK areas shall be free from standing water.

(G) DECK drains shall be cleaned and maintained to prevent blockage and the ponding of water.

(H) Absorbent materials used in wet areas must be able to be removed for daily cleaning and DISINFECTION.

(I) Fixed equipment, loose equipment, and DECK furniture shall not interfere with emergency exit procedures or intrude upon the AQUATIC VENUE DESIGNATED WALKWAY.

3-408 Aquatic Facility Maintenance

All appurtenances, features, signage, safety and other equipment, and systems required by these Regulations shall be provided and maintained.

3-408.1 Diving Boards and Platforms

(A) The finish and profile of surfaces of diving boards and platforms shall be maintained to prevent slips, trips, and falls.

(B) Diving boards shall be inspected daily for cracks and loose bolts with cracked boards removed and loose bolts tightened immediately.

3-408.2 Steps and Guardrails

(A) Steps and guardrails shall be secured so as not to move during use.

(B) The profile and surface of steps shall be maintained to prevent slips and falls.

3-408.3 The profile and surface of starting platform steps shall be in good repair to prevent slips, trips, falls, and pinch hazards.

3-408.4 WATERSLIDES

(A) WATERSLIDES shall be maintained and operated to the manufacturer's or designer's specifications.

(B) Slime and biofilm layers shall be removed on all accessible WATERSLIDE surfaces.

(C) WATERSLIDE water flow rates shall be checked to be within the designer's or manufacturer's specifications prior to opening to the public.

(D) Where WATERSLIDE plumbing lines are susceptible to holding stagnant water, WATERSLIDE pumps shall be started with sufficient time prior to opening to flush such plumbing lines with treated water.

(E) The water shall be tested to verify the disinfectant in the water is within the parameters specified in Section 3-503.1.

3-408.5 ENCLOSURES and BARRIERS

(A) Required ENCLOSURES to include fencing and gates shall be maintained at all times.

(B) Gates, locks, and associated alarms, if required, shall be tested daily prior to opening.

3-408.6 AQUATIC FACILITY Cleaning

(A) The AQUATIC VENUE shall be kept clean of debris, organic material, and slime/biofilm in accessible areas of the water and on surfaces.

(B) Vacuuming shall only be done when the AQUATIC VENUE is closed and port openings shall be covered with an APPROVED device cover when not in use.

3-5 Recirculation and Water Treatment

Subparts

3-501 Recirculation Systems and Equipment

3-501.1 General

(A) All components of the filtration and RECIRCULATION SYSTEM shall be kept in continuous operation 24 hours per day.

(1) For AQUATIC FACILITIES that intend to reduce the recirculation flow rate below the minimum required design values when the AQUATIC VENUE is closed, the system shall be operated according to the provisions outlined in Section 2-502.9(H).

(B) Flow through the various components of a RECIRCULATION SYSTEM shall be balanced to maximize the water clarity and safety of a AQUATIC VENUE.

(C) For PERIMETER GUTTER SYSTEM or SKIMMER AQUATIC VENUES with main drains, the recommended recirculation flow should be as follows during normal operation:

(1) At least 80 percent of the flow through the perimeter overflow system, and

(2) No greater than 20 percent through the main drain.

3-501.2 Each individual AQUATIC VENUE in a combined treatment system shall meet the required TURNOVER times specified in **Table 2-502.9** and achieve all water quality criteria.

3-501.3 INLETS shall be checked at least weekly for rate and direction of flow and adjusted as necessary to produce uniform circulation of water and to facilitate the maintenance of a uniform disinfectant residual throughout the AQUATIC VENUE.

3-501.4 Surface Skimming Devices

(A) The PERIMETER GUTTER SYSTEM shall be kept clean and free of debris that may restrict flow. Removable grates must be in place during operation to prevent entrapment.

(B) The automatic fill system, when installed, shall maintain the water level at an elevation such that the gutters overflow continuously around the perimeter of the AQUATIC VENUE.

(C) The water levels shall be maintained near the middle of the SKIMMER openings.

(D) The flow through each SKIMMER shall be adjusted to maintain skimming action that will remove all floating matter from the surface of the water.

(E) The strainer baskets for SKIMMERS shall be maintained in good repair, not broken or missing and cleaned as necessary to maintain proper skimming. Damaged strainer baskets shall be replaced.

(F) Weirs must remain in place and in working condition at all times. Broken or missing SKIMMER weirs shall be replaced.

(G) A flotation test may be required by the HEALTH AUTHORITY to evaluate the effectiveness of surface skimming.

3-501.5 Submerged Drains/Suction Outlet Covers or Gratings

(A) Loose, broken, or missing suction outlet covers and sumps shall be secured or replaced immediately and installed in accordance with the manufacturer's requirements.

(1) AQUATIC VENUES shall be closed until the required repairs can be completed.

(2) AQUATIC FACILITIES shall follow procedures for closing and re-opening as applicable in Section 3-201.

(B) The manufacturer's documentation on all outlet covers and sumps shall be made part of the permanent records of the AQUATIC FACILITY.

3-501.6 Strainers shall be in place and cleaned as required to maintain pump performance.

3-501.7 Flow meters in accordance with Section 2-502.8 shall be provided and maintained in proper working order.

3-501.8 Flow Rates / TURNOVER

(A) AQUATIC VENUES constructed or SUBSTANTIALLY ALTERED after the adoption of these Regulations shall be operated at the designed flow

rate to provide the required TURNOVER 24-hours per day when open for use except as allowed in Section 2-502.9.

(B) AQUATIC VENUE RECIRCULATION SYSTEMS constructed before the adoption of these Regulations shall be operated 24 hours a day in accordance with Section 3-501.1(A).

3-502 Filtration

Filters and filter media shall be listed and labeled to NSF/ANSI 50 by an ANSI-accredited certification organization. Filters shall be operated, backwashed, cleaned and maintained according to the manufacturer's instructions.

~~When cartridge filters are in use, one full set of spare cartridges shall be maintained on site in a clean and dry condition.~~

3-503 Disinfection and pH Control

3-503.1 Primary Disinfectants

Only the primary disinfectants outlined in this Section shall be acceptable for use in AQUATIC VENUES.

(A) CHLORINE (Hypochlorites)

(1) Only CHLORINE products that are EPA-REGISTERED for use as sanitizers or disinfectants in AQUATIC VENUES or SPAS in the United States are permitted.

(2) Minimum FAC concentrations shall be maintained at all times in all areas as follows:

(a) AQUATIC VENUES not using CYA shall maintain a minimum FAC concentration of 1.0 PPM.

(b) AQUATIC VENUES using CYA shall maintain a minimum FAC concentration of 2.0 PPM.

(c) SPAS shall maintain a minimum FAC concentration of 3.0 PPM.

(3) Recirculated AQUATIC FEATURE water lines susceptible to holding stagnant water shall maintain disinfectant throughout the lines as per Section 3-503.1(A)-(B).

(4) Maximum FAC concentrations shall not exceed 10.0 PPM at any time the AQUATIC VENUE is open to BATHERS.

(B) Bromine

(1) Only bromine products that are EPA-REGISTERED for use as sanitizers or disinfectants in AQUATIC VENUES or SPAS in the United States shall be permitted.

(2) Minimum bromine concentrations shall be maintained at all times in all areas as follows:

(a) All AQUATIC VENUES: 3.0 PPM, and

(b) SPAS: 3.0 PPM.

(3) Maximum bromine concentrations shall not exceed 8.0 PPM at any time the AQUATIC VENUE is open to BATHERS.

(C) Stabilizers

~~(1) CYA or stabilized CHLORINE products shall not be used at the following for all new construction, SUBSTANTIAL ALTERATION, or DISINFECTION equipment replacements after the effective date of these Regulations:~~

~~(a) SPAS; and~~

~~(b)~~(a) ~~THERAPY POOLS.~~

(2) The CYA level at all AQUATIC VENUES shall remain at or below ~~80~~ 50 PPM not to exceed ~~100~~ 80 PPM.

~~(3) Stabilized CHLORINE products shall be prohibited from use on all AQUATIC VENUES five (5) years following the implementation date of these Regulations.~~

(D) Compressed CHLORINE Gas

As per Section 2-504.2(K), use of compressed CHLORINE gas shall be prohibited for new construction and after SUBSTANTIAL ALTERATION to existing AQUATIC FACILITIES.

(1) Facilities using compressed CHLORINE gas shall provide safety precautions per the following Sub-Sections.

(a) The chlorinators and any cylinders containing CHLORINE gas used therewith shall be housed in an ENCLOSURE separated from other EQUIPMENT ROOMS, including the AQUATIC VENUE, corridors, dressing rooms and other space with a door so installed as to prevent gas leakage and equipped with an inspection window.

(b) The enclosure shall be equipped with an audible alarm and leakage detection kit.

(c) A gas mask designed for use in a CHLORINE atmosphere must be located outside of the ENCLOSURE in a closed, unlocked cabinet along with a record book for use and a replacement canister.

(d) CHLORINE cylinders shall be secured from falling.

(e) Cylinders in use shall be secured on a suitable platform scale and equipped with a wrench or valve handle that can be used to shut off the gas in the event of an emergency.

(f) A separate vent opening near the floor to the building exterior shall be provided.

(g) An electric motor-driven fan capable of two air changes per hour, shall take suction from near the floor level of the ENCLOSURE and discharge at a suitable point to the exterior above the ground level.

(h) The fan switch shall be able to be operated from outside of the ENCLOSURE.

(i) Any person who operates such chlorinating equipment shall be trained in its use.

(j) AQUATIC FACILITIES shall stop the use of CHLORINE gas if specific safety equipment and training requirements, along with local code considerations, cannot be met.

(E) Salt Electrolytic CHLORINE Generators, Brine Electrolytic CHLORINE or Bromine Generators

(1) Only POOL grade salt shall be used.

(2) The salt generation generator must maintain CHLORINE and bromine levels within required concentrations as specified in Section 3-503.1(A). The saline content of the AQUATIC VENUE water shall be maintained in the required range specified by the manufacturer.

(3) Cleaning of electrolytic plates shall be performed as recommended by the manufacturer.

(4) Corrosion protection systems shall be maintained in the AQUATIC VENUE basin.

(F) A facility unable to maintain water with the required disinfectant residual will be required to install equipment for the automated feeding of chemicals.

3-503.2 Secondary Disinfection Systems

(A) UV Light

(1) UV systems shall only operate while the RECIRCULATION SYSTEM is operating.

(2) UV systems shall be operated and maintained not to exceed the maximum validated flow rate and meet or exceed the minimum validated output intensity needed to achieve the required dose for a 3-log inactivation.

(3) UV sensors shall be calibrated at a frequency in accordance with the manufacturer's recommendations.

(4) Records of calibration shall be maintained by the AQUATIC FACILITY.

(B) Ozone

(1) Ozone systems shall be operated and maintained according to the manufacturer's instructions to maintain the required design performance.

(2) Residual ozone concentration in the AQUATIC VENUE water shall remain below 0.1 PPM.

(3) A printed standard operating manual shall be provided containing information on the operation and maintenance of the ozone generating equipment, including the responsibilities of workers in an emergency.

(4) All employees shall be properly trained in the operation and maintenance of the equipment.

(C) Copper and Silver Ions

(1) Only those systems that are EPA-REGISTERED for use as sanitizers or disinfectants in AQUATIC VENUES or SPAS in the United States are permitted.

(2) Copper and silver concentrations shall not exceed 1.3 PPM for copper and 0.10 PPM for silver for use as disinfectants in AQUATIC VENUES in the United States.

(3) FAC or bromine levels shall be maintained in accordance with Section 3-503.1.

3-503.3 Other Sanitizers, Disinfectants, or Chemicals

(A) Other sanitizers, disinfectants, or chemicals used must:

(1) Be U.S. EPA-REGISTERED under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA),

(2) Not create a hazardous condition or compromise disinfectant efficacy when used with required bromine or CHLORINE concentrations, and

(3) Not interfere with water quality measures meeting all criteria set forth in these Regulations.

(B) CHLORINE Dioxide

(1) CHLORINE dioxide added through the recirculation system shall only be used for remediation for water quality issues when the AQUATIC VENUE is closed and BATHERS are not present.

(2) Safety training and safety precautions related to the use of CHLORINE dioxide shall be in place.

(C) Clarifiers, flocculants, and defoamers shall be used per the manufacturer's instructions.

3-503.4 PH

(A) The PH of the water shall be maintained between 7.2 and 7.8.

(B) APPROVED substances for PH adjustment shall include but not be limited to muriatic (hydrochloric) acid, sodium bisulfate, carbon dioxide, sulfuric acid, sodium bicarbonate, and soda ash.

~~(B)~~**(C)** A facility unable to maintain water at the required pH, will be required to install equipment for the automated feeding of chemicals.

3-503.5 Feed Equipment

(A) ~~Acceptable~~ Any disinfectant and PH control chemicals ~~shall be~~ delivered through an automatic chemical feed system ~~five (5) years following the implementation date of these Regulations.~~ shall meet the following requirements:

(1) All chemical feed system components must be dedicated to a single chemical and clearly labeled to prevent the introduction of incompatible chemicals.

(2) Chemical feed system components shall be installed and interlocked so it cannot operate when the RECIRCULATION SYSTEM is in low or no flow circumstances as per Section 2-504.2(B).

(3) Chemical feed system components shall incorporate failure-proof features so the chemicals cannot feed directly into the AQUATIC VENUE, the venue piping system not associated with the RECIRCULATION SYSTEM, source water supply system, or the area within proximity of the AQUATIC VENUE DECK under any type of failure, low flow, or interruption of operation of the equipment to prevent BATHER exposure to high concentrations of AQUATIC VENUE treatment chemicals.

(4) All chemical feed equipment shall be maintained in good working condition.

(B) Chemical feeders shall be installed such that they are not over a different chemical, stored chemicals, other feeders, or electrical equipment.

(C) Chemicals shall be kept dry to avoid clumping and potential feeder plugging for mechanical gate or rotating screw feeders. The feeder mechanism shall be cleaned and lubricated to maintain a reliable feed system.

(D) Adequate pressure shall be maintained at the venturi INLET to create the vacuum needed to draw the chemical into the RECIRCULATION SYSTEM.

(E) Erosion feeders shall only have chemicals added that are APPROVED by the manufacturer.

(1) A feeder shall only be opened after the internal pressure is relieved by a bleed valve.

(2) Erosion feeders shall be maintained according to the manufacturer's instructions.

~~For liquid solution feeders, spare feeder tubes (or tubing) shall be maintained onsite for peristaltic pumps.~~

(F) Tubing and connections shall be checked on a daily basis for leaks.

(1) All chemical tubing that runs across walkways in non-PATRON areas shall be routed in PVC piping to support the tubing and to prevent leaks.
(2) The double containment PVC pipe shall be of sufficient size to allow for easy replacement of tubing.
(3) Any necessary turns in the piping shall be designed so as to prevent kinking of the tubing.

(G) The Chlorine Institute requirements for safe storage and use of CHLORINE gas shall be followed.

(H) Carbon dioxide feed shall be permitted to reduce PH and control total alkalinity.
(1) Carbon dioxide feed shall be controlled using a gas regulator.
(2) CO_2/O_2 monitor and alarm shall be maintained in working condition.
(3) Carbon dioxide is heavier than air, so forced ventilation shall be maintained in the storage room.

3-503.6 Testing for Water Circulation and Quality

(A) WATER QUALITY TESTING DEVICES (WQTDs) for the measurement of disinfectant residual, PH, alkalinity, CYA (if used), and temperature, at a minimum, shall be available on site.

(B) WQTDs utilizing reagents shall be checked for expiration at every use and the date recorded.

(C) WQTDs shall be stored in accordance with the manufacturer's instructions.

(D) Chemical testing reagents shall be maintained at proper manufacturer specified temperatures.

(E) WQTDs that require calibration shall be calibrated in accordance with the manufacturer's instructions and the date of calibration recorded.

(F) WQTDs unable to measure FAC are prohibited.

3-503.7 Automated Controllers and Equipment Monitoring

(A) When present Aan AUTOMATED CONTROLLER capable of measuring the disinfectant residual (FAC or bromine) or surrogate such as ORP shall be used to maintain the disinfectant residual in AQUATIC VENUES as outlined in Section 2-504.2(V).

~~(B) An AUTOMATED CONTROLLER shall be required within two (2) years following the implementation date of these Regulations for INCREASED RISK AQUATIC VENUES, and five (5) years for all other AQUATIC VENUES.~~

~~(C) AUTOMATED CONTROLLERS shall be interlocked per Section 2-504.2(B) upon adoption of these Regulations if existing or upon installation if not existing.~~

~~(D)~~(B) The sample line for all probes shall be upstream from all primary, SECONDARY, AND SUPPLEMENTAL DISINFECTION injection ports or devices.

~~(E)~~(C) AUTOMATED CONTROLLERS shall be monitored at the start of the operating day to ensure proper functioning.

~~(F)~~(D) MONITORING shall include activities recommended by manufacturer, including but not limited to alerts and leaks.

~~(G) Only manufacturer-approved OEM replacement parts shall be used.~~

~~(H)~~(E) AUTOMATED CONTROLLERS shall be calibrated per the manufacturer's directions.

~~(I)~~(F) When an ozone system is utilized as a SECONDARY DISINFECTION SYSTEM, the system shall be MONITORED continuously for the

following: ORP, the control system indicating O_3 being created, and operational indicators indicating the system is in range. The MONITORING data must be recorded every four (4) hours.

(1) At the time the ozone generating equipment is installed, again after 24 hours of operation, and annually thereafter, the air space within six (6) inches of the AQUATIC VENUE water shall be tested to determine compliance of less than 0.1 PPM gaseous ozone.

(2) Results of the test shall be maintained on site for review by the HEALTH AUTHORITY.

~~(J)~~**(G)** When a UV system is utilized for SECONDARY DISINFECTION, the system shall be monitored continuously for the following and the data recorded as indicated: flow rate every four (4) hours, intensity every four (4) hours, water temperature daily, set point for intensity daily, and UV lamp on/off cycles recorded weekly with the total cycles/week. In addition the following must be MONITORED and recorded as indicated: iron, calcium hardness – weekly, UVT analyzer calibration – weekly, calibration intensity MONITORED annually and recorded at the time of calibration, and the calibration of the flow meter per the manufacturer's requirements and recorded the time of calibration.

~~(K)~~**(H)** The automated UV shut-down alarm required in Section 2-504.3(D)(7) shall be tested weekly and maintained as needed.

3-504 Water Sample Collection and Testing

3-504.1 Routine Sample Collection

When routine samples are collected from in-line sample ports, the QUALIFIED OPERATOR shall also ensure water samples are acquired from the bulk water of the AQUATIC VENUE at least once per day

(A) Water quality data from these AQUATIC VENUE samples shall be compared to data obtained from in-line port samples to assess potential water quality variability in the AQUATIC VENUE.

3-504.2 AQUATIC VENUE Water Chemical Balance

(A) Total alkalinity shall be maintained in the range of 60 to 180 PPM.

(B) The OWNER shall ensure the AQUATIC FACILITY takes action to reduce the level of CHLORAMINES in the water when levels exceed 1.0 PPM. Such actions may include but are not limited to:

(1) SUPERCHLORINATION;

(2) BREAKPOINT CHLORINATION;

(3) Water exchange; or

(4) PATRON adherence to appropriate BATHER hygiene practices.

(C) Calcium hardness should not exceed 1000 PPM.

(D) Algaecides may be used in an AQUATIC VENUE provided:

(1) The product is labeled as an algaecide for AQUATIC VENUE or SPA use;

(2) The product is used in strict compliance with label instructions; and,

(3) The product is registered with the US EPA and applicable state agency.

3-504.3 Source water shall be maintained as outlined in Section 2-901.

3-504.4 AQUATIC VENUE water shall be chemically balanced.

3-504.5 Water Temperature

(A) Water temperatures shall be considered and planned for based on risk, safety, priority facility usage, and age of participants, while managing water quality concerns.

(B) The maximum temperature for any AQUATIC VENUE is 104°F.

3-504.6 Facilities not having dependable DISINFECTION and filtration systems or failing to maintain such systems in accordance with these Regulations shall provide weekly bacteriological testing results from a State certified laboratory of water samples taken from each AQUATIC VENUE. Not more than 15 percent of the samples for any AQUATIC VENUE must either:

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

(B) Show a positive test (confirmed test) for total 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.

3-505 Water Quality Chemical Testing Frequency

3-505.1 FAC or bromine, and PH shall be tested at all AQUATIC VENUES prior to opening each day or at least once every 24 hours at evenly spaced intervals when the AQUATIC VENUE remains open 24 hours a day.

3-505.2 For all AQUATIC VENUES not associated with residential living units, the FAC (or bromine) and PH shall be tested prior to opening and every four (4) hours while accessible to BATHERS.

3-505.3 In-line ORP readings, if such systems are installed, shall be recorded at the same time the FAC (or bromine) and PH tests are performed.

3-505.4 Total Alkalinity (TA) and combined AVAILABLE CHLORINE shall be tested weekly at all AQUATIC VENUES.

3-505.5 CYA shall be tested monthly at all AQUATIC VENUES utilizing CYA.

(A) CYA shall be tested 24 hours after the addition of CYA to the AQUATIC VENUE.

(B) If AQUATIC VENUES utilize stabilized CHLORINE as its primary disinfectant, the operator shall test CYA every week.

3-505.6 For heated AQUATIC VENUES, water temperature shall be recorded at the same time the FAC (or bromine) and PH tests are performed.

3-505.7 If in-line electrolytic chlorinators are used, salt levels shall be tested at least weekly or per manufacturer's instructions.

3-505.8 Copper and silver shall be tested daily at all AQUATIC VENUES utilizing copper/silver systems as a SUPPLEMENTAL DISINFECTION SYSTEM.

3-506 Water Clarity

3-506.1 The water in an AQUATIC VENUE shall be sufficiently clear such that the main suction outlet pattern is visible while the water is static at all times the AQUATIC VENUE is open or available for use.

3-506.2 This reference point shall be visible at all times at any point on the DECK up to 30 feet away in a direct line of sight from the main drain. For SPAS, this test shall be performed when the water is in a non-turbulent state and bubbles have been allowed to dissipate.

3-507 Water Supply and Disposal

All provisions for water supply, fill spout, cross-connection control, sanitary waste and AQUATIC VENUE waste water must meet all criteria outlined in Section 2-9 with the exception of Section 2-905.3 and providing a sump pit for AQUATIC VENUE waste water on AQUATIC FACILITIES constructed prior to the adoption of these Regulations..

3-507.1 BACKFLOW prevention devices shall be in good working order and shall be tested as required by the HEALTH AUTHORITY.

3-6 Decks and Equipment

Subparts

3-601 Spectator Areas
3-602 Starting Blocks
3-603 Lifeguard and Safety Related Equipment
3-604 Enclosures

3-601 Spectator Areas

3-601.1 Materials and Slip Resistance

(A) Surfaces shall be clean and in good repair.

(B) The finish and profile of DECK surfaces shall be maintained to prevent slips and falls.

(C) Tripping hazards shall be avoided. If tripping hazards are present, they shall be repaired or promptly barricaded to protect PATRONS and employees.

3-601.2 The PERIMETER DECK shall be maintained clear of obstructions for at least a four (4) foot width around the entire AQUATIC VENUE unless otherwise allowed by these Regulations.

3-602 Starting Blocks

3-602.1 Starting platforms shall only be used for competitive swimming and training.

3-602.2 Starting platforms shall only be used under the direct supervision of a coach or instructor.

3-602.3 Starting platforms shall be removed, if possible, or prohibited from use during all recreational or non-competitive swimming activity by covering platforms with a manufacturer-supplied platform cover or with another means or device that is readily visible and clearly prohibits use.

3-603 Lifeguard and Safety Related Equipment

3-603.1 AQUATIC FACILITIES shall not be open to PATRONS unless the equipment listed under this Section is present and in a safe and working condition.

3-603.2 Safety Equipment Required at All AQUATIC FACILITIES

(A) The AQUATIC FACILITY shall have equipment for staff to communicate in case of emergency.

(1) The AQUATIC FACILITY or each AQUATIC VENUE, as necessary, shall have a functional telephone or other communication system or device that is hard wired and capable of directly dialing 911 or function as the emergency notification system.

(2) The telephone or communication system or device shall be conspicuously provided and accessible to AQUATIC VENUE PATRONS such that it can be reached immediately.

(3) Alternate functional systems, devices, or communication processes are allowed with HEALTH AUTHORITY approval in situations when a hardwired telephone is not logistically sound, and an alternate means of communication is available.

3-603.3 LIFEGUARD STATIONS shall have an unobstructed view of the entire bottom of the AQUATIC VENUE.

3-603.4 LIFEGUARD stands shall provide enough height to elevate the LIFEGUARD to an eye level above the heads of the BATHERS; and provide safe access and egress for the LIFEGUARD.

3-603.5 LIFEGUARD Chair and Stand Design

(A) The chairs/stands must be designed:

(1) With no sharp edges or protrusions; and

(2) With sturdy, durable, and UV resistant material.

(B) When a chair or stand is provided, it shall be equipped with overhead protection from or in a location without direct sun exposure or glare to allow for optimal BATHER surveillance.

3-603.6 First Aid Supplies

(A) The AQUATIC FACILITY with onsite staff shall have designated locations for emergency and first aid equipment. An adequate supply of first aid supplies shall be continuously stocked.

(B) Signage shall be provided at the AQUATIC FACILITY or each AQUATIC VENUE, as necessary, which clearly identifies the following:

(1) First aid location(s);

(2) Emergency telephone(s) or APPROVED communication system or device;

(3) A permanent sign providing emergency dialing directions and the AQUATIC FACILITY address shall be posted and maintained at the emergency telephone, system or device;

(4) A permanent sign shall be conspicuously posted and maintained displaying contact information for emergency personnel and AQUATIC FACILITY management; and

(5) A sign shall be posted stating the following:

(a) The operating hours of the AQUATIC FACILITY, and

(b) Unauthorized use of the AQUATIC FACILITY outside of these hours is prohibited.

3-603.7 Safety Equipment Required at Facilities with Lifeguards

(A) At least one spinal injury board constructed of material easily SANITIZED or disinfected shall be provided. The board shall be equipped with a head immobilizer and sufficient straps to immobilize a person to the spinal injury board.

(B) Each LIFEGUARD conducting BATHER surveillance with the responsibility of in-water rescue in less than three (3) feet of water shall have a rescue tube immediately available for use.

(C) Each LIFEGUARD conducting BATHER surveillance in a water depth of three (3) feet or greater shall have a rescue tube on his/her person in a rescue ready position.

(D) LIFEGUARDS shall wear attire that readily identifies them as members of the AQUATIC FACILITY'S LIFEGUARD staff.

(E) A whistle or other signaling device shall be worn by each LIFEGUARD conducting BATHER surveillance for communicating to PATRONS and/or staff.

(F) Personal protective devices including a resuscitation mask with a one-way valve and non-latex one-use disposable gloves shall be immediately available to all LIFEGUARDS.

(G) AQUATIC FACILITIES with one LIFEGUARD shall provide and maintain a U.S. Coast Guard-approved aquatic rescue throwing device.

(H) AQUATIC FACILITIES with one LIFEGUARD shall provide and maintain a 12 foot to 16 foot reaching pole.

3-603.8 Safety Equipment and Signage Required at Facilities without Lifeguards

(A) AQUATIC VENUES whose depth exceeds two (2) feet of standing water shall provide and maintain a U.S. Coast Guard-approved aquatic rescue throwing device, with at least a 1/4 inch thick rope whose length is 50 feet or 1.5 times the width of the AQUATIC VENUE, whichever is less. The rescue throwing device shall be located in the immediate vicinity to the AQUATIC VENUE and be visible and accessible to BATHERS.

(B) AQUATIC VENUES whose depth exceeds two (2) feet of standing water shall provide and maintain a reaching pole of 12 feet to 16 feet in length, non-telescopic, light in weight, and with a securely attached Shepherd's Crook with an aperture of at least 18 inches. The reaching pole shall be located in the immediate vicinity to the AQUATIC VENUE and be visible and accessible to BATHERS and PATRONS.

(C) Cardiopulmonary Resuscitation (CPR) posters that are up to date with the latest CPR programs and protocols shall be posted conspicuously at all times.

(D) A sign shall be posted outlining the IMMINENT HEALTH HAZARDS, which require an AQUATIC VENUE or AQUATIC FACILITY closure as defined in these Regulations and a telephone number to report problems to the OWNER/operator.

(E) For any AQUATIC VENUE with standing water, a sign shall be posted signifying a LIFEGUARD is not on duty in four (4) inch lettering and that the following rules apply:

(1) Persons under the age of 14 cannot be in the AQUATIC VENUE without direct adult supervision meaning children shall be in adult view at all times, and

(2) Youth and childcare groups, training activities, lifeguard courses, and swim lessons are not allowed without a LIFEGUARD providing BATHER surveillance.

3-603.9 Spa Specific Signage - the following signs must be posted at all SPAS:

(A) 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.

(B) Children 12 years or younger must be supervised by an adult, the maximum recommended exposure time for such children to use the spa is 10 minutes. Posted in four (4) inch letters.

3-604 Enclosures

3-604.1 All required ENCLOSURES shall be maintained to prevent unauthorized entry to the protected space.

3-604.2 All primary public access gates or doors serving as part of an ENCLOSURE shall have functional self-closing and self-latching closures.

3-604.3 Gates or doors used solely for after-hours maintenance shall remain locked at all times when not in use by authorized staff.

3-7 Chemical Storage and Use

Subparts

3-701 Chemical Storage

3-702 Chemical Handling

3-701 Chemical Storage

3-701.1 Chemical storage and handling shall be in compliance with applicable law.

3-701.2 Storage, handling and use of each chemical shall be in compliance with the manufacturer's SDS and labels.

3-701.3 AQUATIC VENUE chemicals shall be stored to prevent access by unauthorized individuals.

3-702 Chemical Handling

3-702.1 Containers of chemicals shall be labeled, tagged, or marked with the identity of the material and a statement of the hazardous effects of the chemical according to OSHA and/or EPA materials labeling requirements.

3-702.2 Chemicals shall be measured using a dedicated measuring device where applicable. These measuring devices shall be clean, dry, and constructed of material compatible with the chemical to be measured to prevent the introduction of incompatible chemicals.

3-702.3 Chemical Addition Methods

(A) DISINFECTION and PH control chemicals shall be automatically introduced through the RECIRCULATION SYSTEM.

(1) Superchlorination or shock chemicals and other chemicals other than DISINFECTION and PH control may be added manually to the AQUATIC VENUE.

(2) Chemicals added manually directly into the AQUATIC VENUE shall only be introduced in the absence of BATHERS.

(B) Chemicals shall be diluted (or mixed with water) prior to application and as per the manufacturer's directions.

(1) Chemicals shall be added to water when diluting as opposed to adding water to a concentrated chemical.

(2) Each chemical shall be mixed in a separate, labeled container.

(3) Two or more chemicals shall never be mixed in the same dilution water.

3-8 Hygiene Facilities

Subparts

3-801 Plumbing Fixture Requirements

3-802 Provisions of Suits, Towels, and Shared Equipment

3-801 Plumbing Fixture Requirements

3-801.1 HYGIENE FACILITY fixtures, dressing area fixtures, and furniture shall be cleaned and SANITIZED ~~daily and more~~ as often ~~if~~ as necessary with an EPA-REGISTERED product to provide a clean and sanitary environment.

3-801.2 HYGIENE FACILITY floors, walls, and ceilings shall be kept clean and free of visible mold and mildew.

3-801.3 HAND WASH STATIONS shall include the following items:

(A) Hand wash sink,

(B) Adjacent soap dispenser,

(C) Hand drying device or paper towels and dispenser, and

(D) Trash receptacle.

3-801.4 CLEANSING SHOWERS

CLEANSING SHOWERS shall be cleaned and SANITIZED ~~daily and more~~as often ~~if~~ as necessary with an EPA-REGISTERED product to provide a clean and sanitary environment.

3-801.5 RINSE SHOWERS

(A) RINSE SHOWERS shall be cleaned as necessary with an EPA-REGISTERED product to provide a clean and sanitary environment.

(B) RINSE SHOWERS shall be easily accessible.

(C) Equipment and furniture on the DECK shall not block access to RINSE SHOWERS.

(D) Soap dispensers and soap shall be prohibited at RINSE SHOWERS.

(E) RINSE SHOWER drains shall discharge to the sanitary sewer according to applicable law.

3-801.6 Non-Plumbing Fixture Requirements

(A) If paper towels are used for hand drying, a dispenser and paper towels shall be provided for use at HAND WASH STATIONS.

(B) Soap dispensers shall be provided at HAND WASH STATIONS and CLEANSING SHOWERS and shall be kept full of liquid or granular soap. Bar soap shall be prohibited.

(C) A minimum of one (1) hands-free trash receptacle shall be provided in areas adjacent to hand washing sinks. Trash receptacles shall be emptied daily and more often if necessary to provide a clean and sanitary environment

(D) Non-permanent floor coverings shall be removable and maintained in accordance with Section 3-801.1. Wooden racks, duckboards, and wooden mats shall be prohibited on HYGIENE FACILITY and dressing area flooring.

3-801.7 Sharps

(A) A Biohazard Action Plan shall also be on file as required by local, state or federal regulations and included as part of the AQUATIC FACILITY SAFETY PLAN.

(B) Sharps within APPROVED containers shall be disposed of as needed by the AQUATIC FACILITY in accordance with applicable law.

3-802 Provisions of Suits, Towels, and Shared Equipment

3-802.1 All towels provided by the AQUATIC FACILITY shall be washed with detergent and bleach in warm water, rinsed, and thoroughly dried at the warmest temperature listed on the fabric label after each use. Non-absorbent, easily cleanable receptacles shall be provided for the collection of used suits and towels.

3-802.2 Equipment provided by the AQUATIC FACILITY that comes into contact with BATHER'S eyes, nose, ears, and mouth (including but not limited to snorkels, nose clips, and goggles) shall be cleaned, SANITIZED between uses, and stored in a manner to prevent biological growth.

3-802.3 Other shared equipment provided by the AQUATIC FACILITY, including but not limited to fins, kickboards, tubes, lifejackets, and noodles, shall be kept clean and stored in a manner to prevent mold and other biological growth.

3-802.4 Shared equipment shall be maintained in good repair.

3-802.5 Used and un-SANITIZED shared equipment shall be kept separate from cleaned and SANITIZED shared equipment.

3-802.6 Non-absorbent, easily cleanable receptacles shall be provided for the collection of used shared equipment.

3-9 Special Use Aquatic Venues and Features

Subparts

3-901 Waterslides

3-901.1 Signage

Warning signs shall be posted in accordance with the manufacturer's recommendations.

3-902 Wave Pools

3-902.1 Life Jackets

U.S. Coast Guard-approved life jackets that are properly sized and fitted shall be provided free for use by BATHERS who request them.

3-903 Moveable Floors

3-903.1 Starting Platforms

The use of starting platforms in the area of a MOVEABLE FLOOR shall be prohibited when the water depth is shallower than the minimum required water depth of four (4) feet.

3-903.2 Diving Boards

When a MOVEABLE FLOOR is installed into a DIVING POOL, diving shall be prohibited unless the DIVING POOL depth meets criteria set in Section 2-602.1.

3-904 Bulkheads

3-904.1 If a BULKHEAD is operated with an open area underneath, no one shall be allowed to swim beneath the BULKHEAD.

3-904.2 The BULKHEAD position shall be maintained such that it cannot encroach on any required clearances of other features such as diving boards.

3-905 Interactive Water Play Aquatic Venues

3-905.1 Cracks in the INTERACTIVE WATER PLAY AQUATIC VENUE shall be repaired when they may be a potential for leakage, present a tripping hazard, present a potential cause of lacerations, or impact the ability to properly clean and maintain the INTERACTIVE WATER PLAY AQUATIC VENUE area.

3-905.2 When cleaning the INTERACTIVE WATER PLAY AQUATIC VENUE, contaminants shall be removed or washed to the sanitary sewer. If no sanitary sewer drain is available, then debris shall be directed to the nearest DECK drain or removed in a manner that prevents contaminants from reentering the INTERACTIVE WATER PLAY AQUATIC VENUE.

3-906 Spas

3-906.1 SPA filtration systems shall be operated 24 hours per day except for periods of draining, filling, and maintenance.

3-906.2 SPAS shall be drained, cleaned, scrubbed, and have the water replaced as needed to maintain water quality and water clarity requirements.

3-906.3 SPA surfaces, including the interior of SKIMMERS, shall be scrubbed or wiped down, and have all water drained prior to refilling the SPA.

3-907 Natural Bathing Places

3-907.1 Warning signs must be posted at each end of the designated bathing area, "No Lifeguard Service Beyond This Point."

3-907.2 Conveniently located trash receptacles must be provided. These receptacles must be emptied as needed and maintained in a sanitary condition.

3-907.3 At least one LIFEGUARD and elevated chair shall be provided for every 400 feet of beach.

3-907.4 Water samples shall be submitted to a state-licensed laboratory each week. Such samples must meet the following criteria: *E. coli* at a geometric of 126 CFU per 100 mL and an STV (single test value) of 410 CFU per 100 mL measured using EPA Method 1603, or any other equivalent method that measures E. coli.

3-907.5 Failure to meet any of the criteria noted in Section 2-10012.1(B)-(F) shall result in the immediate closure of the NATURAL BATHING PLACE.

3-908 Isolation and Floatation Units

3-908.1 The maximum bathing load in a tank is one person.

3-908.2 The solution in the tank must be disinfected by normal chlorination or bromination at 3.0 to 5.0 PPM.

3-908.3 The maximum temperature of the solution in the tank must not exceed 97°F.

3-908.4 Each room must have the following signs provided:

- **(A)** Maximum water depth.
- **(B)** BATHER behavior.
- **(C)** Location of the emergency phone and emergency telephone number(s).
- **(D)** Diagrammatic CPR instructions.

3-908.5 The QUALIFIED OPERATOR information must be posted in a conspicuous location within the AQUATIC FACILITY.

SECTION 4 Policies and Management

Parts

4-1 Qualified Operator Requirement

Subpart

The provisions of this Section shall apply to all AQUATIC FACILITIES covered by these Regulations regardless of when constructed, unless otherwise noted.

Employees assigned to roles which have the potential for an occupational exposure to bloodborne pathogens, pathogens that cause RWIs, or other pathogens shall be trained to recognize and respond to body fluid (blood, feces, and vomit) releases in and around the AQUATIC VENUE area.

4-101 Qualified Operator Qualifications, Certification, and Registration

4-101.1 Operator Qualifications

(A) A QUALIFIED OPERATOR of an AQUATIC FACILITY shall have completed a training course that is recognized by the HEALTH AUTHORITY and maintain a current certification as required by the HEALTH AUTHORITY.

(B) A QUALIFIED OPERATOR shall have a current certificate or written documentation acceptable to the HEALTH AUTHORITY showing the completion of a training course.

(1) Originals or copies of such certificate or documentation shall be available on site for inspection by the HEALTH AUTHORITY for each QUALIFIED OPERATOR employed at or contracted by the site, as specified in these Regulations.

(2) Originals shall be made available upon request by the HEALTH AUTHORITY.

4-101.2 Operator Registration

(A) A QUALIFIED OPERATOR shall register with the HEALTH AUTHORITY once a certification is obtained and prior to beginning work at any AQUATIC FACILITY or with any POOL COMPANY.

(B) All QUALIFIED OPERATORS currently registered with the HEALTH AUTHORITY shall obtain proof of national certification from a recognized testing entity at the time of their registration renewal within three years from the implementation of these Regulations. Registrations will expire in conjunction with the national certification date and must be renewed prior to expiration.

(C) Individuals not properly certified or registered may not perform service at a permitted AQUATIC FACILITY. All services provided must be in accordance with these Regulations.

(D) The QUALIFIED OPERATOR is responsible for maintaining the AQUATIC VENUE in accordance with these Regulations. If a defect or deficiency is discovered at an AQUATIC VENUE that presents a risk to PATRONS, it is the QUALIFIED OPERATOR's responsibility to close the AQUATIC VENUE until the required repairs have been made.

4-101.3 Registration of Pool Companies

(A) All POOL COMPANIES who provide service to permitted AQUATIC VENUES must be registered with the HEALTH AUTHORITY and provide a current list of all registered persons in their employ within 30 days of any changes in personnel. Registrations will expire two years after the date of issuance and must be renewed prior to expiration.

(B) The AQUATIC FACILITY shall promptly post in a conspicuous location within each ENCLOSURE at an AQUATIC FACILITY where services are provided by a POOL COMPANY, a legible sign which identifies the company name, phone number, and the company certificate number issued by the HEALTH AUTHORITY.

(C) The AQUATIC FACILITY shall promptly remove the POOL COMPANY sign when the POOL COMPANY is no longer providing services.

(D) The AQUATIC FACILITY shall ensure each POOL COMPANY has current proof of certification while providing POOL services. Proof of certification shall consist of an unaltered and unexpired photo identification card issued by the HEALTH AUTHORITY which has the:

(1) Person's name,
(2) Type of certification,
(3) Certificate number, and
(4) Expiration date.

4-101.4 Required Servicing Equipment

The following list of equipment must be available for use by each QUALIFIED OPERATOR when providing service to a permitted AQUATIC VENUE:

(A) Water Quality Testing Devices (WQTDs) which can reliably measure:
(1) Disinfectant residual,
(2) PH,
(3) Total alkalinity,
(4) Acid demand, and
(5) Cyanuric acid concentration;

(B) A brush suitable for cleaning the bottom of the AQUATIC VENUE;

(C) A thermometer;

(D) A vacuum cleaner, complete with attachments;

(E) A leaf SKIMMER;

(F) Hand tools and lubricants necessary for servicing mechanical equipment incident to swimming POOLS and their appurtenances;

(G) Materials and chemicals necessary for disinfecting AQUATIC VENUE water and adjusting total alkalinity and PH; and

(H) Any other equipment deemed necessary by the HEALTH AUTHORITY.

4-101.5 Contractors

A licensed contractor may perform work at an AQUATIC FACILITY within the scope of the licensed contractor's qualifications.

4-101.6 Qualified Operator Training Courses must be in accordance with the criteria outlined in the most current MAHC published by the CDC.

4-2 Lifeguard Training

Subparts

4-201 Lifeguard and Attendant Qualifications

4-201.1 A LIFEGUARD shall:

- **(A)** Have successfully completed a recognized LIFEGUARD training course offered by a recognized training agency;
- **(B)** Possess a current certificate for such training;
- **(C)** Have met all pre-service requirements; and
- **(D)** Participate in continuing in-service training requirements of the AQUATIC FACILITY.

4-201.2 Lifeguard Training Courses must be in accordance with the criteria outlined in the most current MAHC published by the CDC.

4-201.3 An ATTENDANT shall:

- **(A)** Possess a current certification for CPR and First Aid; and
- **(B)** Be trained by the employer to identify and correct safety hazards specific to the assigned attraction.

4-202 Lifeguard Supervisor Training

4-202.1 LIFEGUARD SUPERVISOR Candidate Prerequisites

LIFEGUARD SUPERVISOR candidate prerequisites shall include but not be limited to having:

- **(A)** A current LIFEGUARD certification;
- **(B)** A current LIFEGUARD SUPERVISOR Certification; and
- **(C)** The ability to effectively communicate verbally in English.

4-3 Facility Staffing

Subparts

4-301 Qualified Operator Requirements and Availability

4-301.1 All AQUATIC VENUES must have a QUALIFIED OPERATOR contracted or employed to monitor and maintain the AQUATIC VENUE whenever the facility is operating.

4-301.2 The AQUATIC FACILITY'S QUALIFIED OPERATOR must be available to respond to an emergency or IMMANENT HEALTH HAZARD within two hours.

4-301.3 QUALIFIED OPERATORS shall monitor the AQUATIC VENUE weekly during the off season, a minimum of three (3) times per week during the peak season, or more often as necessary to maintain compliance with these Regulations.

- **(A)** Weekly visits shall be documented and be available at the AQUATIC FACILITY for review by the HEALTH AUTHORITY.
- **(B)** The written documentation shall indicate the checking, MONITORING, and testing required in these Regulations.

(C) The written documentation shall indicate what corrective actions, if any, were taken by the contracted off-site QUALIFIED OPERATOR during the scheduled visits or assistance requests.

(D) All AQUATIC FACILITIES without a full time on-site QUALIFIED OPERATOR shall have a designated on-site RESPONSIBLE PERSON.

(E) The designated on-site RESPONSIBLE PERSON shall:

(1) Be capable of testing and recording the water quality parameters required by these Regulations;

(2) Be capable of properly closing an AQUATIC VENUE in accordance with these Regulations;

(3) Know when the AQUATIC FACILITY or individual AQUATIC VENUE should be closed; and

(4) Know how and when to contact the contracted off-site QUALIFIED OPERATOR.

(5) Not make adjustments or perform any maintenance at the AQUATIC VENUE.

4-302 Aquatic Facilities Requiring Lifeguards

4-302.1 All AQUATIC VENUES with standing water and any of the following conditions listed in this Section shall be required to have a LIFEGUARD(s) conducting BATHER surveillance at all times the AQUATIC VENUE is open.

(A) A LIFEGUARD shall be required for any of the following conditions:

(1) Any POOL that allows unsupervised children under the age of 14 years;

(2) Any POOL while it is being used for the recreation of youth groups, including but not limited to, childcare usage or school groups;

(3) Any AQUATIC VENUE while it is being used for group training including but not limited to competitive swimming and/or sports, LIFEGUARD training, exercise programs, and swimming lessons;

(4) Any AQUATIC VENUE with a surface area of at least 2000 square feet;

(5) Any AQUATIC VENUE ENCLOSURE with a cumulative unsupervised POOL surface area of 4000 square feet or more;

(6) Any AQUATIC VENUE with an induced current or wave action including but not limited to WAVE POOLS and LAZY RIVERS;

(7) WATERSLIDE LANDING POOLS;

(8) Any AQUATIC VENUE in which BATHERS enter the water from any height above the DECK including but not limited to diving boards, DROP SLIDES, starting platforms, and/or climbing walls;

(9) Any POOL that charges an admission fee or where a rental fee includes the use of the POOL; or

(10) Any POOL not associated with multiple living or lodging units.

4-303 Safety Plan

4-303.1 All AQUATIC FACILITIES shall create and implement a SAFETY PLAN to include, but not be limited, to the following elements:

(A) Staffing Plan,

(B) EMERGENCY ACTION PLAN (EAP),

(C) Biohazard action plan,

(D) Pre-Service Training Plan, and

(E) In-service Training Plan.

4-303.2 When LIFEGUARDS are required, a Lifeguard Staffing Plan shall be submitted to the HEALTH AUTHORITY for approval prior to opening. The plan shall include diagrammed zones of BATHER surveillance for each AQUATIC VENUE that ensures the following:

(A) At least one LIFEGUARD shall be required for every 2000 square feet or major fraction thereof, unless an independent lifeguard auditing entity provides documentation validating that the proposed number of LIFEGUARDS will meet all of the requirements outlined in this section. A minimum of three (3) unannounced audits must be conducted by the auditing entity each season with copies provided to and available for review by the HEALTH AUTHORITY;

(B) The LIFEGUARD is capable of viewing the entire area of the assigned zone of BATHER surveillance;

(C) The LIFEGUARD is able to reach the furthest extent of the assigned zone of BATHER surveillance within 20 seconds;

(D) Identify whether the LIFEGUARD is in an elevated stand, walking, in-water and/or other APPROVED position;

(E) Additional responsibilities for each zone as identified; and

(F) All areas of each AQUATIC VENUE are assigned a zone of BATHER surveillance.

(G) Any modifications to the APPROVED LIFEGUARD plan must be submitted and APPROVED by the HEALTH AUTHORITY prior to implementation.

4-303.3 The Lifeguard Staffing Plan shall include the following:

(A) Identification of all zones of BATHER surveillance at the AQUATIC FACILITY;

(B) Description of methods used for maintaining coverage of the zone of BATHER surveillance during LIFEGUARD rotation; and

(C) Staffing rotation schedule which provides an alternation of tasks such that no LIFEGUARD conducts BATHER surveillance activities for more than 60 continuous minutes.

(1) Alternation of tasks includes a change in the zone of surveillance that requires relocation of the LIFEGUARD or a period of 10 minutes of non-PATRON surveillance activity such as taking a break, conducting maintenance or conducting ride dispatch.

4-303.4 The Lifeguard Staffing Plan shall include LIFEGUARD supervision protocols to achieve the requirements of Section 4-304.3.

4-303.5 LIFEGUARDS shall be trained on and receive a copy of the EAP that is posted and always available at the AQUATIC FACILITY, as well as the following policies and procedures:

(A) Zone of BATHER Surveillance Plan,

(B) Rotation Plan,

(C) Minimum Staffing Plan, and

(D) Rescue/First Aid Response plan.

4-303.6 The RESPONSIBLE PERSON(s) with CPR/AED and first aid training shall present unexpired certificate(s) maintained on site and available for review at the time of inspection.

4-303.7 Any modifications to the APPROVED Lifeguard Staffing Plan must be submitted and APPROVED by the HEALTH AUTHORITY prior to implementation.

4-304 Staff Management

4-304.1 Prior to use of any AQUATIC VENUE, the AQUATIC FACILITY shall provide staff required per the provisions of the SAFETY PLAN as stated in Section 4-303.1.

4-304.2 RESPONSIBLE PERSON duties shall include, but not be limited to:

(A) Enforcing the AQUATIC FACILITY rules and regulations by interfacing with PATRONS;

(B) Respond to reported emergencies;

(C) Identify health and safety hazards and take action to mitigate or avoid the hazard;

(D) Know where the PPE is located and use it when required; and

(E) Interface with the HEALTH AUTHORITY related to the requirements of these Regulations.

4-304.3 Lifeguard Staff

(A) Where LIFEGUARDS are used, the AQUATIC FACILITY shall provide, prior to opening the AQUATIC FACILITY to the public, the minimum number of LIFEGUARDS and staff required per the provisions of the SAFETY PLAN such that:

(1) All zones of BATHER surveillance are staffed during operation;

(2) Zones of BATHER surveillance for individual AQUATIC VENUES not open for use, must also be staffed unless an effective means is provided to restrict and monitor access to the AQUATIC VENUE;

(3) Rotations can be conducted while all zones are staffed;

(4) LIFEGUARD SUPERVISOR is present; and

(5) Additional PERSON(s) to rapidly respond to an emergency to help the initial rescuer are present.

(B) LIFEGUARD responsibilities shall include but not be limited to:

(1) Monitor BATHERS within the zone of BATHER surveillance responsibility;

(2) Enforce facility rules;

(3) Respond to emergencies including water rescue, CPR, AED use, and first aid;

(4) Identify health and safety hazards and take action to mitigate or avoid the hazard;

(5) Maintain skills at a test-ready proficiency level;

(6) Wear the identifying uniform;

(7) If needed for effective BATHER surveillance, wear corrective eyewear and/or wear polarized sunglasses;

(8) Know where PPE is located and use it when required.

(C) LIFEGUARDS assigned responsibilities for BATHER surveillance shall not be assigned other tasks that intrude on BATHER surveillance.

(D) While conducting BATHER surveillance, LIFEGUARDS shall not engage in social conversations or have on their person or LIFEGUARD STATION cellular telephones, texting devices, music players, or other similar non-emergency electronic devices.

4-304.4 ATTENDANT Staff

(A) ATTENDANTS are required at each entry and exit point of WATERSLIDES or DROP SLIDES in sufficient numbers to ensure proper dispatching and surveillance of riders.

(B) Attendants must have a method of communication between the entry attendant and the runout attendant.

4-304.5 LIFEGUARD SUPERVISOR Staff

(A) AQUATIC FACILITIES that are required to have two (2) or more LIFEGUARDS per the Lifeguard Staffing Plan's zone of BATHER surveillance responsibility in Section 4-303.2 shall have at least one person located at the AQUATIC FACILITY during operation designated as

the LIFEGUARD SUPERVISOR who meets the requirement of Section 4-202.

(1) One of the LIFEGUARDS may be designated as the LIFEGUARD SUPERVISOR in addition to fulfilling the duties of LIFEGUARD.

(B) LIFEGUARD SUPERVISOR duties shall not interfere with the primary duty of BATHER surveillance.

(C) LIFEGUARD SUPERVISOR responsibilities shall include but not be limited to:

(1) Monitor performance of LIFEGUARDS in their zone of BATHER surveillance responsibility;

(2) Ensure the rotation is conducted in accordance with the Lifeguard Staffing Plan;

(3) Coordinate staff response and BATHER care during an emergency;

(4) Identify health and safety hazards and communicate to staff and management to mitigate or avoid the hazard; and

(5) Ensure the required equipment per Section 3-603.2 is in place and in good condition.

4-304.6 Emergency Action and Communications Plans

(A) AQUATIC FACILITIES with required LIFEGUARD staff shall create and maintain an operating procedures manual containing information on the emergency response and communications plan including an EAP, Facility Evacuation Plan, and Inclement Weather Plan.

(B) A written EAP shall be developed, maintained, and updated as necessary for the AQUATIC FACILITY.

(C) The written EAP shall be kept at the AQUATIC FACILITY and available for emergency personnel and/or the HEALTH AUTHORITY upon request.

(D) The EAP shall include at a minimum:

(1) A diagram of the AQUATIC FACILITY;

(2) A list of emergency telephone numbers;

(3) The location of first aid kit and other rescue equipment (bag valve mask, AED, if provided, backboard, etc.);

(4) An emergency response plan for accidental chemical release; and

(5) A fecal/vomit/blood CONTAMINATION RESPONSE PLAN as outlined in Section 4-501.

(E) A written Facility Evacuation Plan shall be developed and maintained for the AQUATIC FACILITY. This plan shall include, at a minimum:

(1) Actions to be taken in cases of drowning, serious illness or injury, chemical handling accidents, weather emergencies, and other serious incidents; and

(2) Defined roles and responsibilities for all staff.

(F) A communication plan shall exist to facilitate activation of internal emergency response centers and/or community 911/EMS as necessary.

(G) The AQUATIC FACILITY shall have a contingency/response plan for localized weather events that may affect its operation (i.e., lightning, high winds, etc.).

4-304.7 Remote MONITORING Systems

(A) Lifeguard-based remote safety MONITORING systems shall not replace the need for LIFEGUARDS. Remote safety MONITORING systems may be used to aid the operation, but not as a substitute for LIFEGUARDS or

ATTENDANTS when critical areas such as blind spots in an AQUATIC VENUE or area of a SLIDE are visually obstructed or otherwise cannot be viewed by a LIFEGUARD or ATTENDANT.

(B) QUALIFIED OPERATOR-based remote water quality MONITORING systems shall not be a substitute for manual water quality testing of the AQUATIC VENUE.

(C) When LIFEGUARD or QUALIFIED OPERATOR-based remote MONITORING systems are used, AQUATIC FACILITY staff shall be trained on their use, limitations, and communication and response protocols for communications with the MONITORING group.

4-304.8 Employee Illness and Injury Policy

(A) LIFEGUARD SUPERVISORS shall not permit employees who are ill with diarrhea to enter the water or perform in a LIFEGUARD role.

(B) LIFEGUARD SUPERVISORS shall not permit employees with open wounds in the water or in a LIFEGUARD role unless they have healthcare provider approval or wear a waterproof, occlusive bandage to cover the wound.

4-4 Facility Management

Subparts

4-401 Operations

4-402 Patron-Related Management Aspects

4-401 Operations

4-401.1 Operations Manual

(A) Each AQUATIC FACILITY shall develop an operations manual to keep at the AQUATIC FACILITY in either a printed or electronic format that is readily available for review during inspection.

(B) The manual shall at minimum include, but not be limited to, the following items:

(1) AQUATIC VENUE and AQUATIC FEATURE description(s) and locations;

(2) Facility communication;

(3) List of chemicals and system information;

(4) Fecal/vomit and body fluid contamination response protocols;

(5) Preventive maintenance plan; and

(6) Any other standard operation and maintenance policies and instructions or applicable information for each AQUATIC VENUE and AQUATIC FEATURE at the facility.

4-401.2 Operation Records

(A) AQUATIC FACILITIES shall keep records pertaining to the operation, maintenance, and management of the AQUATIC FACILITY. AQUATIC FACILITY records shall be:

(1) Kept for a minimum of three years, and

(2) Available upon request by the HEALTH AUTHORITY.

4-401.3 Safety and Maintenance Inspection and Recordkeeping

(A) The QUALIFIED OPERATOR or RESPONSIBLE PERSON shall ensure a daily AQUATIC FACILITY preventive maintenance inspection is done before opening which includes:

(1) Walkways, DECKS and exits are clear, clean and free of debris;

(2) Drain covers, vacuum fitting covers, SKIMMER equalizer covers, and any other suction outlet covers are in place, secure, and unbroken;
(3) SKIMMER baskets, weirs, lids, flow adjusters, and suction outlets are free of any blockage;
(4) INLET and return covers and any other fittings are in place, secure, and unbroken;
(5) Safety warning signs and other signage are in place and in good repair;
(6) Safety equipment required by these Regulations is in place and in good repair, including emergency instructions and phone numbers;
(7) Entrapment prevention systems are operational;
(8) Recirculation, DISINFECTION systems, controller(s), and probes are operating as required;
(9) SECONDARY and/or SUPPLEMENTAL DISINFECTION SYSTEMS are operating as required;
(10) Underwater lights and other lighting are intact with no exposed wires or water in lights;
(11) Slime and biofilm has been removed from accessible surfaces of AQUATIC VENUES, SLIDES, and other AQUATIC FEATURES;
(12) Doors to nonpublic areas (CHEMICAL STORAGE SPACES, offices, etc.) are locked;
(13) First aid supplies are stocked;
(14) Emergency communication equipment and systems are operational;
(15) Fecal/vomit/blood incident contamination response protocols, materials, and equipment are available;
(16) Water features and amenities are functioning in accordance with the manufacturer's recommendations;
(17) ENCLOSURES, gates, and self-latching or other locks are tested, intact, and functioning properly, and ENCLOSURES do not have nearby furniture to encourage climbing;
(18) Drinking fountains are clean and in functional condition;
(19) Electrical devices are in good working condition and meet NEC requirements;
(20) Alarms, if required, are tested and functioning properly;
(21) Assessing water clarity such that the bottom and objects in the AQUATIC VENUE are clearly visible;
(22) Monthly tests of GFCI devices and emergency phone; and
(23) Inspections every six months of bonding conductors, where accessible.

4-401.4 Water MONITORING and Testing Records

MONITORING and testing records shall include the following:

(A) PH level;
(B) Disinfectant residuals;
(C) Operating pressures of water recirculation pumps and filters or the corresponding flow rate from flow meter readings;
(D) Cyanuric acid levels, if used;
(E) Maintenance and malfunctioning of equipment, including dates and time of all equipment calibration including WQTDs;
(F) If heated, AQUATIC VENUE water temperature;

(G) The time of filter backwash or cleaning;
(H) Total alkalinity;
(I) Microbiological testing, if applicable, dates/times samples were taken and results,
(J) Any equipment failure, power outage, or error resulting in the interruption of the circulation, filtration, or DISINFECTION systems for more than one hour;
(K) The daily attendance at the AQUATIC FACILITY; and
(L) SECONDARY DISINFECTION SYSTEMS when required.

4-401.5 Staff Certifications on File

Copies of all required LIFEGUARD, LIFEGUARD SUPERVISOR, or QUALIFIED OPERATOR certificates shall be maintained at the AQUATIC FACILITY and made available to the HEALTH AUTHORITY upon request.

4-401.6 Bodily Fluids Remediation Log

(A) A Body Fluid Contamination Response Log shall be maintained to document each occurrence of contamination of the water or its immediately adjacent areas by formed or diarrheal fecal material, stomach discharge of vomit, and blood.
(B) The AQUATIC FACILITY's standard operating procedures for responding to these contamination incidents shall be readily available for review by the HEALTH AUTHORITY.
(C) The log shall include the following information recorded at the time of the incident:
(1) Person conducting response;
(2) QUALIFIED OPERATOR or on-site RESPONSIBLE PERSON on duty;
(3) Date and time of incident response;
(4) Specific area, if not in the water, contaminated by incident;
(5) BATHER COUNT in the AQUATIC VENUE at the time of incident;
(6) Type and form of body fluid observed e.g., diarrheal or formed stool, vomitus, or blood;
(7) Date and time the area was closed;
(8) Whether the AQUATIC VENUE used CHLORINE stabilizer and its concentration at time of incident;
(9) Free residual disinfectant and PH levels at the time of incident;
(10) Remediation procedures used after the incident including the disinfectant contact time, if applicable;
(11) Free residual disinfectant and PH level at the time of reopening the AQUATIC VENUE to the public;
(12) Stabilizer concentration, if used, at the time of reopening; and
(13) Date and time of reopening.

4-402 Patron-Related Management Aspects

4-402.1 BATHER COUNT-Maximum Occupancy

AQUATIC FACILITIES that typically operate with low BATHER OCCUPANCY shall have a plan in place to adjust for potential higher BATHER use. Such plans shall not exceed the maximum designed THEORETICAL PEAK OCCUPANCY for the individual AQUATIC VENUES or the AQUATIC FACILITY.

4-402.2 Signage

(A) The QUALIFIED OPERATOR shall post and enforce the AQUATIC FACILITY rules governing health, safety, and sanitation.
(B) The lettering shall be legible and at least one (1) inch (36 point type) high, with a contrasting background, unless otherwise specified.

(C) Signage shall be conspicuously placed at each entrance to the AQUATIC FACILITY communicating expected and prohibited behaviors and other information using text that complies with the intent of the following information:

(1) In case of an emergency, dial 911 or other emergency instructions;
(2) Hours of operation;
(3) THEORETICAL PEAK OCCUPANCY;
(4) No smoking in the AQUATIC VENUE or on the DECK;
(5) Do not swim if you have open wounds;
(6) Do not swim if you are ill with diarrhea or have had diarrhea within the past two weeks;
(7) Shower before entering the water;
(8) No glass items in the AQUATIC VENUE or on the DECK;
(9) Diaper changing on the DECK is prohibited;
(10) No animals in the AQUATIC VENUE and no animals on the DECK, except service animals; and
(11) QUALIFIED OPERATOR information to include name, registration number, and contact information.

(D) In addition to signage listed in Section (C), unstaffed AQUATIC FACILITIES shall also include signage messages covering:

(1) No Lifeguard on Duty, in letters at least four (4) inches high;
(2) Children under 14 years of age must have adult supervision;
(3) No Solo Bathing; and
(4) Hours of operation; AQUATIC FACILITY use prohibited at any other time
  (a) AQUATIC FACILITIES without compliant lighting must limit hours of operation from dawn to dusk.

(E) In AQUATIC FACILITIES not requiring LIFEGUARDS, CPR posters reflecting the latest standards shall be posted conspicuously at all times.

(F) Signage shall be conspicuously placed within 30 feet of each entrance to each AQUATIC VENUE communicating expected and prohibited behaviors and other information using text that complies with the intent of the following information:

(1) No Diving, in letters at least four (4) inches high, as applicable per Section 2-3018.10;
(2) Location of the nearest emergency phone;
(3) Maximum BATHER OCCUPANCY;
(4) Pollution of AQUATIC VENUE prohibited;
(5) Do not swallow or spit water;
(6) Intentional hyperventilation or extended breath holding activities are dangerous and prohibited.

(G) In addition to Section (C) requirements, AQUATIC VENUES with moveable bottom floors shall also have the following information or text complying with the intent of the following information:

(1) A sign for AQUATIC VENUE water depth in use shall be provided and clearly visible;
(2) A "No Diving" sign shall be provided; and
(3) The floor is movable and AQUATIC VENUE depth varies.

(H) In addition to Section (C) requirements, SPAS shall also have the following information or text complying with the intent of the following information:

(1) Maximum water temperature is 104°F;

(2) Pregnant women and people with heart disease, high blood pressure or other health problems should not use SPAS without prior consultation with a healthcare provider;

(3) Children under 12 years of age must be accompanied by an adult, the maximum recommended exposure time for such children is 10 minutes, posted in four (4) inch lettering; and

(4) Use of the SPA when alone is prohibited (if no LIFEGUARDS on site).

(I) Signage shall be posted at the HYGIENE FACILITY exit used to access AQUATIC VENUES stating or containing information, or text complying with the intent of the following information:

(1) Do not swim when ill with diarrhea;

(2) Do not swim with open wounds and sores;

(3) Shower before entering the water;

(4) Check your child's swim diapers/rubber pants regularly;

(5) Diaper changing on the DECK is prohibited;

(6) Do not poop or pee in the water;

(7) Do not swallow or spit water; and

(8) Wash hands before returning to the AQUATIC VENUE.

4-402.3 BATHERS must wear appropriate attire that is designed and intended for use as swimwear where swimwear is required. Street clothing may not be worn while bathing.

4-5 Fecal/Vomit/Blood Contamination Response

Subparts

4-501 Contamination Response Plan
4-502 Aquatic Venue Water Contamination Response
4-503 Aquatic Venue Water Contamination Treatment and Disinfection
4-504 Surface Contamination Cleaning and Disinfection

4-501 Contamination Response Plan

4-501.1 All AQUATIC FACILITIES shall have a CONTAMINATION RESPONSE PLAN within the EAP for responding to formed-stool contamination, diarrheal-stool contamination, vomit contamination, and contamination involving blood.

4-501.2 The Response Plan shall be reviewed at least annually and updated as necessary.

4-501.3 The Response Plan shall be kept on site and available for viewing by the HEALTH AUTHORITY.

4-502 Aquatic Venue Water Contamination Response

4-502.1 Closure

In the event of a fecal or vomit contamination in an AQUATIC VENUE, the QUALIFIED OPERATOR shall immediately close the AQUATIC VENUE to BATHERS until remediation procedures are complete. This closure shall include the affected AQUATIC VENUE and other AQUATIC VENUES that share the same RECIRCULATION SYSTEM.

4-502.2 Physical Removal
Contaminating material shall be removed and disposed of in a sanitary manner.

(A) The item used to remove fecal or vomit contamination shall undergo thorough cleaning followed by DISINFECTION.

(B) Aquatic vacuum cleaners shall not be used for removal of contamination from the water or adjacent surfaces unless vacuum waste is discharged to a sanitary sewer and the vacuum equipment can be adequately disinfected.

4-503 Aquatic Venue Water Contamination Treatment and Disinfection

4-503.1 In the event of a fecal, vomit, or blood contamination incident, the AQUATIC FACILITY shall follow the most recent response guidelines from the CDC Healthy Swimming Fecal Incident Response Recommendations for Aquatic Staff.

Note: The use of stabilized CHLORINE or CYA inhibits the effectiveness of the disinfecting agent and may require the draining of an AQUATIC VENUE if the concentration cannot be lowered to 15 PPM prior to treatment per guidelines above.

4-504 Surface Contamination Cleaning and Disinfection

4-504.1 If a bodily fluid, such as feces, vomit, or blood, has contaminated a surface in an AQUATIC FACILITY, facility staff shall limit access to the affected area until remediation procedures have been completed.

4-504.2 Before DISINFECTION, all visible contaminant shall be cleaned and removed with disposable cleaning products effective with regard to the type of contaminant present, type of surface to be cleaned, and the location within the facility.

4-504.3 Contaminant removed by cleaning shall be disposed of in a sanitary manner or as required by law.

4-504.4 Contaminated surfaces shall be disinfected with one of the following DISINFECTION solutions:

(A) A 1:10 dilution of fresh household bleach with water; or

(B) An equivalent EPA REGISTERED disinfectant that has been APPROVED for body fluids DISINFECTION.

4-504.5 The disinfectant shall be left to soak on the affected area for a minimum of 20 minutes or as otherwise indicated on the disinfectant label directions.

4-504.6 Disinfectant shall be removed by cleaning and shall be disposed of in a sanitary manner or as required by the HEALTH AUTHORITY.

SECTION 5 Compliance and Enforcement

Parts

5-1 Provision for Conditions Not Addressed in these Regulations

5-101 The HEALTH AUTHORITY shall address conditions when necessary to protect public health and may impose temporary, specific requirements in addition to the requirements specified in these Regulations.

5-102 The HEALTH AUTHORITY shall document the conditions that necessitate the imposition of additional requirements and the underlying public health rationale. The documentation shall be provided to the PERMIT applicant or PERMIT HOLDER, and a copy shall be maintained in the HEALTH AUTHORITY's file for the AQUATIC FACILITY.

5-2 Prerequisites for Operation

Subparts

5-201 Permit Requirements

A person shall not operate an AQUATIC FACILITY without a valid PERMIT issued by the HEALTH AUTHORITY.

5-202 Permit Application, Renewals, Transfers, Submission, Conditions, and Content

5-202.1 Application and Submission

(A) For new construction and SUBSTANTIAL ALTERATIONS, plans will be reviewed and a written response outlining any additional information or corrections needed for the plan approval within 30 business days from the most recent date of submission.

(B) If from the date of plan approval, construction has not been initiated within one (1) calendar year, or construction halts for one (1) calendar year, the HEALTH AUTHORITY may, in its sole discretion, delete the PERMIT and require the resubmission of plans and a PERMIT application with associated fees prior to resuming construction.

5-202.2 Conditions

To qualify for a PERMIT, an applicant shall:

(A) Be an OWNER, prospective OWNER, or person legally in charge OWNER designee, or an officer of the legal ownership of the AQUATIC FACILITY;

(B) Pay the applicable PERMIT fees at the time the application is submitted; and

(C) Comply with the requirements of these Regulations.

5-202.3 Application, Renewal, and Submission

(A) Applications for an initial, new, or renewal PERMIT must be made on an application form furnished by the HEALTH AUTHORITY.

(B) All applications must be submitted at least 30 days before:

(1) The opening date of any AQUATIC VENUE or AQUATIC FACILITY;

(2) The expiration of any PERMIT; and/or

(3) The effective date of a change of ownership.

5-202.4 Contents of the Application

The application must include:

(A) The name, mailing address, telephone number, and signature of the person applying for the PERMIT.

(B) The name, mailing address, and physical location of the AQUATIC FACILITY.

(C) If an application is made by a corporation, an LLC, association or partnership, the names of the members or officers and signature of at least one managing member or officer, a contact telephone number, and address shall be provided.

(D) Information specifying whether an association, corporation, individual, partnership, or other legal entity owns the AQUATIC FACILITY.

(E) The name, title, address, and telephone number of the RESPONSIBLE PERSON for the AQUATIC FACILITY.

(F) The name, title, address, and telephone number of the person who functions as the immediate supervisor of the RESPONSIBLE PERSON including, but not limited to the zone, district, or regional supervisor.

(G) Proof of ownership, lease agreement, or other legal document that establishes the standing of the applicant's authority to use the land for the PERMIT purpose.

(H) The names, titles, and business addresses of:

(1) The legal owners of the physical location of the AQUATIC FACILITY.

(2) The local authorized applicant, if one is required, based on the type of legal ownership. Authorization shall be in writing and shall be signed by the OWNER or corporate officer, managing member, or other authorized person.

(I) A statement signed by the applicant that:

(1) Attests to the accuracy of the information provided in the application; and

(2) Affirms that the applicant will:

(a) Comply with these Regulations and

(b) Allow the HEALTH AUTHORITY access to the establishment and to any records needed to establish compliance with these Regulations.

(J) Other information as required by the HEALTH AUTHORITY.

5-202.5 Denial of Application for PERMIT, Notice

If an application for a PERMIT to operate is denied, the HEALTH AUTHORITY shall provide the applicant with a notice which includes the:

(A) Specific reasons and regulatory citations for denial of the PERMIT;
(B) Actions the applicant must take to qualify for a PERMIT; and
(C) Applicant's right of appeal and the appeal process.

5-3 Waivers

Subparts

5-301 Conditions of Waiver
5-302 Documentation of Proposed Waiver and Justification
5-303 Change of Ownership of an Existing Aquatic Facility

5-301 Conditions of Waiver

The HEALTH AUTHORITY may grant a WAIVER by modifying or waiving the requirements of these Regulations if, in the opinion of the HEALTH AUTHORITY, no impact to the public health and safety of PATRONS will result from the WAIVER.

5-301.1 During the WAIVER process, the HEALTH AUTHORITY may impose conditions upon the WAIVER.

5-301.2 If a WAIVER is granted, the HEALTH AUTHORITY shall retain the information in its records for the AQUATIC VENUE or AQUATIC FACILITY.

5-301.3 Failure to meet any WAIVER condition may result in the immediate revocation of the WAIVER. If the WAIVER is granted, the PERMIT HOLDER shall comply with any operational plans, procedures, and conditions APPROVED as a basis for the WAIVER.

5-302 Documentation of Proposed Waiver and Justification

An AQUATIC FACILITY seeking a WAIVER shall apply in writing with the appropriate forms to the HEALTH AUTHORITY. The application shall include, but not be limited to:

5-302.1 A statement of the proposed WAIVER of the regulatory requirement citing relevant Regulation section numbers.

5-302.2 A statement of how the intent of the Regulations will be met and the reasons why public health and safety would not be jeopardized if the waiver was granted.

5-302.3 An operational plan, if required, that includes information relevant to the WAIVER requested.

5-302.4 Any requested records or documentation required as part of the WAIVER approval.

5-303 Change of Ownership of an Existing Aquatic Facility

5-303.1 An existing AQUATIC FACILITY, at the time of change of ownership, shall meet the requirements of this Section prior to issuance of a PERMIT.

5-303.2 The HEALTH AUTHORITY may issue a PERMIT to a new OWNER of an existing AQUATIC FACILITY after a properly completed application is submitted, reviewed, and APPROVED, fees are paid, and an inspection is passed.

5-303.3 A facility may be required to bring any aspect of the AQUATIC VENUE or AQUATIC FACILITY into compliance with the current Regulations when ownership changes.

5-4 Responsibilities

Subparts

5-401 Responsibilities of the Health Authority

The responsibilities of the HEALTH AUTHORITY include:

5-401.1 At the time a PERMIT is first issued, the HEALTH AUTHORITY shall inform the PERMIT HOLDER where a copy of these Regulations may be obtained, and that the PERMIT HOLDER is responsible for compliance with these Regulations.

5-401.2 Failure to provide the above information does not prevent the HEALTH AUTHORITY from taking authorized action, or seeking remedies, if the PERMIT HOLDER fails to comply with these Regulations or an order, warning, or directive of the HEALTH AUTHORITY.

5-402 Responsibilities of the Permit Holder

To retain the PERMIT, the PERMIT HOLDER shall:

5-402.1 Post the PERMIT in a location in the AQUATIC FACILITY that is clearly conspicuous to the PATRON upon entering the AQUATIC FACILITY or immediately available upon request.

5-402.2 Comply with the provisions of these Regulations including the conditions of a granted VARIANCE, APPROVED WAIVER, and APPROVED plans.

5-402.3 Immediately discontinue operations and notify the HEALTH AUTHORITY if an IMMINENT HEALTH HAZARD exists.

5-402.4 Immediately notify the HEALTH AUTHORITY if a drowning, near drowning, or water rescue event occurs.

5-402.5 Allow representatives of the HEALTH AUTHORITY access to the AQUATIC VENUE or AQUATIC FACILITY upon request.

5-402.6 Comply with directives of the HEALTH AUTHORITY, including, but not limited to, time frames for corrective actions specified in inspection reports, supervisory conferences, compliance schedules, notices, orders, warnings, and other directives issued by the HEALTH AUTHORITY concerning the PERMIT HOLDER'S AQUATIC FACILITY or in response to community emergencies.

5-402.7 Comply with all applicable federal, state and local governmental requirements as related to the operation of an AQUATIC VENUE or AQUATIC FACILITY. The responsibility of upholding these requirements falls solely on the PERMIT HOLDER, and failure to do so may result in PERMIT suspension or revocation.

5-402.8 Accept notices issued and served by the HEALTH AUTHORITY.

5-402.9 Be subject to the administrative, civil, injunctive, and criminal remedies as specified in NRS Chapter 444, for failure to comply with these Regulations or with a directive of the HEALTH AUTHORITY, including but not limited to time frames for corrective actions specified in inspection reports, supervisory conferences, compliance schedules, notices, orders, warnings, and other directives.

5-403 Permit Modifications

Proposed modifications in the type of operations to be conducted by an AQUATIC FACILITY must not be allowed unless APPROVED by the HEALTH AUTHORITY. The modification process may include, but not be limited to, submission of a construction application, complete with plans and information describing the proposed modifications in design, equipment, and operations.

5-404 Permit Transfer Prohibited

A PERMIT may not be transferred from one OWNER to another, from one AQUATIC VENUE or AQUATIC FACILITY to another.

5-5 Enforcement Inspections

Subparts

5-501 Inspection Authority

5-501.1 Upon presenting proper identification, the HEALTH AUTHORITY shall have the right of access, entrance, inspection, and investigation of any AQUATIC FACILITY permitted by these Regulations.

5-501.2 Unless a QUALIFIED OPERATOR is available onsite all day, keys must be provided to allow access to the AQUATIC VENUE, pump room, HYGIENE FACILITY, and any other related areas.

5-501.3 The right of access pursuant to this Section, includes, but, is not limited to access for the purpose of:

(A) Routine inspection;
(B) Inspect or investigate to determine if there has been a violation of NRS Chapter 444 or these Regulations;
(C) Verify compliance with previously written violation orders;
(D) Collect samples or specimens;
(E) Examine, review, and copy relevant documents and records;
(F) Obtain photographic or other evidence needed to enforce these Regulations; and
(G) Question any person.

5-501.4 If the HEALTH AUTHORITY is refused access, the HEALTH AUTHORITY shall provide details of the denial of access on an inspection report form and the AQUATIC FACILITY will be posted as closed.

5-502 Inspection Frequency

5-502.1 An AQUATIC FACILITY'S inspection frequency may be amended based on the risk of recreational water injury and illness.

5-503 Posting Aquatic Venue Closures

5-503.1 Where an IMMINENT HEALTH HAZARD is found, the AQUATIC VENUE may be posted closed.

5-503.2 Closure signs shall be conspicuously posted at each entrance leading to the AQUATIC VENUE.

5-503.3 Concealment, mutilation, alteration, or removal of Closure signs by any person without permission from the HEALTH AUTHORITY shall constitute a violation of these Regulations.

5-504 Follow-up Inspection

The HEALTH AUTHORITY shall inspect the premises upon notification that the hazard has been eliminated and remove the closure signs after verifying correction. The HEALTH AUTHORITY, in its sole discretion, may accept other evidence of correction of the hazard in lieu of inspecting the premises.

5-505 Appeal Process

5-505.1 A person aggrieved by an action taken by the HEALTH AUTHORITY may request a meeting with the employee responsible for the action and the program supervisor within 10 business days.

5-505.2 If the meeting does not resolve the issue, the aggrieved person may submit a written request for a meeting with the division director or section manager within 10 business days.

5-6 Imminent Health Hazards

Subpart
5-601 Violations Requiring Immediate Correction or Closure

5-601 Violations Requiring Immediate Correction or Closure

Any of the following violations are IMMINENT HEALTH HAZARDS that require immediate correction or closure of the AQUATIC VENUE until the condition is corrected:

5-601.1 Failure to provide adequate supervision of children and required staffing such as: LIFEGUARDS, ATTENDANTS, and a QUALIFIED OPERATOR for the AQUATIC FACILITY as prescribed in these Regulations;

5-601.2 Failure to provide disinfectant residual levels within the the minimum ~~disinfectant residual levels~~and maximum limits designated ~~listed~~ in these Regulations;

5-601.3 Failure to ~~properly~~ treat and achieve proper disinfection following a body fluid contamination event;

5-601.4 pH level below 6.5;

5-601.5 pH level above 8.0;

5-601.6 Failure to continuously operate the AQUATIC VENUE filtration and DISINFECTION equipment;

~~5-601.6~~**5-601.7** Failure to maintain CYA levels below 80 PPM;

~~5-601.7~~**5-601.8** Use of an unapproved or contaminated water supply source for potable water;

~~5-601.8~~**5-601.9** Non-GFCI protected electrical receptacles within 20 feet of the inside wall of the AQUATIC VENUE;

~~5-601.9~~**5-601.10** Failure to maintain GFCI protection for underwater lighting as required;

~~5-601.10~~**5-601.11** Absence of all required lifesaving equipment on DECK;

~~5-601.11~~**5-601.12** AQUATIC VENUE bottom not clearly visible;

~~5-601.12~~**5-601.13** Total absence of or improper depth markings at an AQUATIC VENUE;

~~5-601.13~~**5-601.14** Plumbing CROSS-CONNECTIONs between the drinking water supply and AQUATIC VENUE water or between the sewage system and the AQUATIC VENUE including filter backwash facilities;

~~5-601.14~~5-601.15 Failure to provide and maintain an ENCLOSURE or BARRIER to inhibit unauthorized access to the AQUATIC FACILITY or AQUATIC VENUE as required;

~~5-601.15~~5-601.16 Use of unapproved chemicals or the application of chemicals by unapproved methods to the AQUATIC VENUE water;

5-601.17 Broken, unsecured, or missing submerged suction outlet covers in the AQUATIC VENUE;

~~5-601.16~~5-601.18 Gates that are not self closing and self latching and/or ENCLOSURE breaches or gaps;

~~5-601.17~~5-601.19 Broken glass or sharp objects in the AQUATIC VENUE or on the DECK area; or

~~5-601.18~~5-601.20 Any other item determined to be an IMMINENT HEALTH HAZARD by the HEALTH AUTHORITY.

5-7 Issuing Report and Obtaining Acknowledgment of Receipt

Subparts

5-701 Inspection Conclusion

5-702 Resuming Operations

5-701 Inspection Conclusion

5-701.1 At the conclusion of the inspection, the HEALTH AUTHORITY shall:

(A) Review a copy of the completed inspection report, and any corresponding notice to correct violations with the PERMIT HOLDER or the facility representative; and

(B) Obtain a signed acknowledgement of receipt on the report. If an electronic report, the acknowledgement may be by other means.

5-701.2 Refusal to Sign Acknowledgement

(A) Should the PERMIT HOLDER or facility representative refuse to sign the acknowledgment, the HEALTH AUTHORITY shall inform the refusing party that:

(1) Refusal to sign an acknowledgment does not nullify the inspection report or the PERMIT HOLDER'S obligation to correct the violations noted in the inspection report within the time frames specified, and

(2) An acknowledgment of receipt does not constitute an agreement with findings.

(B) The refusal will be documented on the report and placed in the AQUATIC VENUE'S file.

(C) Provide a copy of the inspection report to the PERMIT HOLDER or facility representative.

5-702 Resuming Operations

5-702.1 If operations are discontinued pursuant to Section 5 herein, as the PERMIT HOLDER shall obtain approval from the HEALTH AUTHORITY before resuming operations.

5-702.2 Prior to opening for use, the QUALIFIED OPERATOR shall demonstrate to the HEALTH AUTHORITY any IMMINENT HEALTH HAZARDS have been corrected.

5-702.3 Facilities documented by the HEALTH AUTHORITY to be operating under conditions of an IMMINENT HEALTH HAZARD and issued an immediate closure, shall pay applicable fees and pass a reopening inspection with no additional closure violations remaining.

5-8 Summary Suspension, Reinstatement and Revocation

Subparts

5-801 Summary Suspension, Reinstatement of Suspended Permit
5-802 Suspension and Revocation

5-801 Summary Suspension Reinstatement of Suspended Permit

5-801.1 The HEALTH AUTHORITY may suspend PERMITS for failure of the PERMIT HOLDER to comply with the requirements of these Regulations.

5-801.2 If conditions exist at an AQUATIC VENUE which presents an IMMINENT HEALTH HAZARD, the HEALTH AUTHORITY may, upon written notice, immediately suspend the operating PERMIT and order the immediate closure of the AQUATIC VENUE.

5-801.3 The suspension shall be effective upon receipt of the written notice by the RESPONSIBLE PERSON, QUALIFIED OPERATOR, or other person in charge. The order of suspension statement on the inspection report constitutes written notice.

5-801.4 The order of suspension must include the following statements:

(A) The PERMIT is immediately suspended and all operations shall be immediately discontinued;

(B) The reasons for summary suspension with specific reference to NRS Chapter 444 and these Regulations;

(C) The type of imminent threat to public health that caused the violation;

(D) The person to whom a request for re-inspection may be made;

(E) The PERMIT holder may request a hearing within five (5) business days of the summary suspension.

5-801.5 THE HEALTH AUTHORITY shall conduct a re-inspection of the AQUATIC FACILITY or AQUATIC VENUE for which the permit was summarily suspended within two (2) business day after receiving notice from the PERMIT holder stating that the conditions cited in the summary suspension order no longer exist.

5-802 Suspension and Revocation

5-802.1 The PERMIT HOLDER may request a hearing within five (5) business days of the summary suspension.

5-802.2 The HEALTH AUTHORITY shall hold a hearing, if requested, within ten (10) business days of receipt of the request for hearing.

5-802.3 The HEALTH AUTHORITY will permanently revoke a PERMIT, unless a request for a hearing is filed with the HEALTH AUTHORITY by PERMIT HOLDER within five (5) business days.

5-802.4 The HEALTH AUTHORITY may, after a hearing, suspend or revoke an AQUATIC FACILITY or AQUATIC VENUE PERMIT for violation of NRS Chapter 444, these Regulations, or an order issued by the HEALTH AUTHORITY.

5-802.5 Unless a hearing is requested as required herein, the suspension or revocation order shall take effect 15 calendar days after the date of issuance of the notice of suspension or revocation.

5-802.6 A notice of suspension or revocation must include the following:

(A) The reasons for the suspension or revocation with reference to the specific provisions of NRS Chapter 444, and these Regulations.

(B) The AQUATIC FACILITY has a right to request a hearing within 15 calendar days after issuance of the notice;

(C) The PERMIT shall be suspended or revoked fifteen (15) calendar days after receipt of the suspension or revocation notice and all operations shall cease at that time unless a hearing is requested.

5-9 Suspension or Revocation of Qualified Operator or Pool Company Registration

5-901 The HEALTH AUTHORITY may suspend or revoke the registration of a POOL COMPANY or QUALIFIED OPERATOR if work of the company or QUALIFIED OPERATOR is performed in such a manner as to create on-going or egregious unsanitary, unsafe, or unhealthful conditions.

5-902 A POOL COMPANY or QUALIFIED OPERATOR may request a hearing within five (5) business days of the summary suspension.

5-903 The HEALTH AUTHORITY shall hold a hearing, if requested, within ten (10) business days of the receipt of the request for hearing.

5-904 The HEALTH AUTHORITY will permanently revoke a POOL COMPANY or QUALIFIED OPERATOR registration, unless a request for a hearing is filled with the HEALTH AUTHORITY by the POOL COMPANY or QUALIFIED OPERATOR within five (5) business days.

5-905 The HEALTH AUTHORITY may, after a hearing, suspend or revoke a POOL COMPANY or QUALIFIED OPERATOR for violation of NRS Chapter 444, these Regulations, or an order issued by the HEALTH AUTHORITY.

5-906 Unless a hearing is requested as required herein, the suspension or revocation order shall take effect 15 calendar days after the date of issuance of the notice of suspension or revocation.

5-907 A notice of suspension or revocation must include the following:

5-907.1 The reasons for the suspension or revocation with reference to the specific provisions of NRS Chapter 444 and these Regulations;

5-907.2 The POOL COMPANY or QUALIFIED OPERATOR has a right to request a hearing within 15 calendar days after issuance of the notice;

5-907.3 The registration shall be suspended or revoked fifteen (15) calendar days after receipt of the suspension or revocation notice and all operations shall cease at that time unless a hearing is requested.

5-10 Notice and Service of Notice

5-1001 A notice issued in accordance with these Regulations is considered properly served if it is served by one of the following methods:

5-1001.1 The notice is personally served by the HEALTH AUTHORITY to the QUALIFIED OPERATOR or RESPONSIBLE PERSON or the person in charge; and/or

5-1001.2 Sending the notice by registered or certified mail, return receipt requested, to the last known address of the AQUATIC FACILITY OWNER.

5-1001.3 The HEALTH AUTHORITY shall file a copy of the notice in the PERMIT holder's file.

5-1002 Reinstatement

5-1002.1 When a PERMIT has been suspended or revoked, an application may be made for reinstatement. Such application must include a verified statement declaring that the reason for the suspension or revocation of the PERMIT has been eliminated.

5-1002.2 If upon investigation by the HEALTH AUTHORITY, it is determined that all reasons for suspension or revocation have been eliminated and all provisions of these Regulations have been complied with, the HEALTH AUTHORITY shall reinstate said PERMIT.

5-1003 Post Revocation Action

Once the PERMIT has been suspended or revoked, as specified in Section 5-8 of these Regulations, the PERMIT holder shall discontinue all activity associated with the AQUATIC VENUE(s) in question. Failure to do so may result in the HEALTH AUTHORITY requesting an injunction from the District Court of Jurisdiction against continued operation by the PERMIT HOLDER.

5-1004 Hearings and Appeals

5-1004.1 All hearings provided for in these Regulations shall be conducted in accordance with the Nevada Administrative Practice Act, NRS Chapter 233B and Health Authority Hearing Officer Regulations.

5-1004.2 Nothing herein contained shall be construed as denying the rights of appeal to the courts after administrative remedies as herein above have been exhausted.

5-11 Abandonment Process

5-1101 To remove an AQUATIC VENUE from regulatory oversight and have the associated HEALTH PERMIT deleted, all equipment associated with the circulation system must be removed and piping appropriately capped in addition to one of the following:

5-1101.1 The AQUATIC VENUE shell may be left in place provided it has been punctured to prevent the accumulation of water, an adequate BARRIER is in place and locked, and must be maintained clean, drained, and free of nuisance conditions;

5-1101.2 The AQUATIC VENUE is filled with gravel or other fill, the shell perforated to prevent water saturation and subsequent nuisance issues allowing for the BARRIER to be removed; or

5-1101.3 The AQUATIC VENUE shell is demolished and removed allowing for the BARRIER to then be removed.

5-12 Public Information

The HEALTH AUTHORITY shall treat the inspection report as a public document and shall make it available for disclosure pursuant to NRS Chapter 239.

5-13 Severability Clause

Should any section, paragraph, sentence, clause, or phrase of these Regulations be declared unconstitutional or invalid for any reason the remainder of these Regulations shall not be affected thereby.

ATTACHMENT

D

COMPARISON OF
PROPOSED 2017 ***SOUTHERN NEVADA HEALTH DISTRICT AQUATIC FACILITY REGULATIONS*, PURPOSE AND DEFINITIONS**
and
CURRENT - **NEVADA ADMINISTRATIVE CODE or REGULATIONS GOVERNING CERTIFICATION OF SWIMMING POOL SERVICE COMPANIES, TECHNICIANS, TECHNICIAN APPRENTICES, AND POOL OPERATORS**

PROPOSED 2017 ***SOUTHERN NEVADA HEALTH DISTRICT AQUATIC FACILITY REGULATIONS***	CURRENT - **NEVADA ADMINISTRATIVE CODE 444**	TYPE OF OR REASON FOR CHANGE
WHEREAS, the Southern Nevada Health District is a public health authority organized pursuant to Nevada Revised Statutes, Chapter 439 with jurisdiction over all public health matters within Clark County, Nevada; and WHEREAS, the Southern Nevada District Board of Health (Board) is the Southern Nevada Health District's governing body, and is authorized to adopt regulations to protect and promote public health and safety in the interests of public health in the geographical area subject to its jurisdiction; and WHEREAS, in accordance with the authority granted pursuant to Nevada Revised Statutes Chapter 439 and Chapter 444, the Board hereby adopts regulations to attain uniform, minimum standards for the operation and maintenance of public swimming pools, spas, natural bathing places, and other public aquatic venues and facilities in Clark County, Nevada, and to assure a clean, healthful, and safe environment for all bathers using these pools; and WHEREAS, these Regulations in no way preclude a facility from establishing additional rules and operating procedures as long as they do not contradict those established herein. WHEREAS, the Board does therefore publish, promulgate and order compliance within Clark County, Nevada with the substantive and procedural requirements hereinafter set forth. [NEW]	This statement is not found in the NAC	Not applicable to state code – Required for all local Regulations
PART 1-2 DEFINITIONS		
1-201 Glossary Terms		
"AIR HANDLING SYSTEM" means equipment that brings in outdoor air into a building and removes air from a building for the purpose of introducing air with fewer contaminants and removing air with contaminants created while BATHERS are using AQUATIC VENUES. The system contains components that move and condition the air for temperature, humidity, and pressure control, and transport and distribute the air to prevent condensation, corrosion, and stratification, provide acceptable indoor air quality, and deliver outside air to the breathing zone. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
Not replaced in definitions section of proposed regulations	**NAC 444.315 "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. [REMOVED]	ADDRESSED IN SECTION 2-1002.9
Not replaced in definitions section of proposed regulations	**NAC 444.317 "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. [REMOVED]	REMOVED DEFINITION
"APPROVED" means acceptable to the HEALTH AUTHORITY based on compliance with the law, conformance with appropriate, accepted, or recognized industry standards and good public health practice.	**NAC 444.012 "Approved"** means acceptable to the health authority based upon a determination concerning conformance with appropriate standards and good public health practices.	REWORDED WITH MORE SPECIFIC LANGUAGE
"AQUATIC FACILITY" means a physical place that contains one or more AQUATIC VENUES and support infrastructure.	**NAC 444.058** **1. "Public bathing or swimming facility"** means any:	**REPLACES PUBLIC BATHING OR SWIMMING**

PROPOSED 2017 *SOUTHERN NEVADA HEALTH DISTRICT AQUATIC FACILITY REGULATIONS*	CURRENT - **NEVADA ADMINISTRATIVE CODE 444**	TYPE OF OR REASON FOR CHANGE
	(a) Artificial swimming lagoon; (b) Isolation and flotation tank; (c) Mineral bath, therapeutic pool or similar facility; (d) Special purpose pool; (e) Spray pool; (f) Swimming pool; (g) Wading pool; or (h) Water recreation attraction, □□that is used by the public for swimming or bathing. 2. The term does not include any facility at a private residence controlled by the owner of the residence, the use of which is limited to members of the family or invited guests of the owner.	**FACILITY DEFINITION REWORDED USING MAHC TERMINOLOGY**
"INDOOR AQUATIC FACILITY" means a physical place that contains one or more AQUATIC VENUES and the surrounding BATHER and SPECTATOR/STADIUM SEATING areas within a structure that meets the definition of "Building" per the 2012 International Building Code. It does not include equipment, chemical storage, or BATHER hygiene rooms or any other rooms with a direct opening to the AQUATIC FACILITY. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"AQUATIC FEATURE" means an individual component within an AQUATIC VENUE. Examples include SLIDES, structures designed to be climbed or walked across, and structures that create falling or shooting water. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"AQUATIC VENUE" means an artificially constructed structure or modified natural structure where the general public is exposed to water intended for recreational or therapeutic purpose. Such structures do not necessarily contain standing water, so water exposure may occur via contact, ingestion, or aerosolization. Examples include swimming POOLS, WAVE POOLS, LAZY RIVERS, SURF POOLS, SPAS (including SPA POOLS and hot tubs), THERAPY POOLS, WATERSLIDE LANDING POOLS, spray pads, and other interactive water venues. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"INCREASED RISK AQUATIC VENUE" means an AQUATIC VENUE which, due to its intrinsic characteristics and intended use has a greater likelihood of affecting the BATHERS of that venue by being at increased risk for microbial contamination (e.g., by children less than five (5) years old) or being used by people that may be more susceptible to infection (e.g., therapy patients with open wounds). Examples of INCREASED-RISK AQUATIC VENUES include spray pads, WADING POOLS, CHILD AMUSEMENT LAGOONS, and other AQUATIC VENUES designed for children less than five (5) years old as well as THERAPY POOLS. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"INTERACTIVE WATER PLAY AQUATIC VENUE" means any indoor or outdoor installation that includes sprayed, jetted or other water sources contacting BATHERS and not incorporating standing or captured water as part of the BATHER activity area. These AQUATIC VENUES are also known as splash pads or spray pads. For the purposes of these Regulations only those designed to recirculate water and intended for public use and recreation shall be regulated.	**NAC 444.070** "Spray pool" means a recreation area intended for use by children, in which water is supplied by a system of sprays but is not allowed to accumulate.	REPLACES SPRAY POOL - REWORDED USING MAHC TERMINOLOGY
"LAZY RIVER" means a channeled flow of water of near-constant depth in which the water is moved by pumps or other means of propulsion to provide a river-like flow that transports BATHERS over a defined path. A LAZY RIVER may include AQUATIC FEATURES and devices. A LAZY RIVER may also be referred to as a tubing POOL, leisure river, leisure POOL or a current channel. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"SPA" means a structure intended for either warm or cold water where prolonged exposure is not intended. SPA structures are intended to be used for bathing or other recreational uses and are not drained and refilled after each use. It may include, but is not limited to, hydrotherapy and air	**NAC 444.400 "Spa"** 1. "Spa" means a pool primarily designed for therapeutic use which is not drained, cleaned or refilled for each user.	REWORDED USING MAHC TERMINOLOGY

PROPOSED 2017 *SOUTHERN NEVADA HEALTH DISTRICT AQUATIC FACILITY REGULATIONS*	CURRENT - **NEVADA ADMINISTRATIVE CODE 444**	TYPE OF OR REASON FOR CHANGE
induction bubbles.	2. The term includes units which employ hydrojet circulation, hot water, cold water, mineral water, air induction bubbles or combinations of them.	
"SPECIAL USE AQUATIC VENUE" means AQUATIC VENUES that do not meet the intended use and design features of any other -AQUATIC VENUE or POOL listed/identified in these Regulations. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"ARTIFICIAL SWIMMING LAGOON" means an artificial body of water with more than 10,000 square feet of water surface area that is intended to be used by persons for swimming or bathing and that is constructed with special features to imitate a NATURAL BATHING PLACE. (NAC 444.013)	**NAC 444.013 "Artificial swimming lagoon"** means an artificial body of water with more than 20,000 square feet of water surface area that is intended to be used by persons for swimming or bathing and that is constructed with special features to imitate a natural bathing place.	REWORDED USING MAHC TERMINOLOGY
"ATTENDANT" means an employee who monitors and controls the flow of BATHERS at the entrance and exits of aquatic attractions such as WAVE POOLS, LAZY RIVERS, SLIDES and FLUMES. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"AUTOMATED CONTROLLER" means a system of at least one chemical probe, a controller, and auxiliary or integrated component that senses the level of one or more water parameters and provides a signal to other equipment to maintain the parameters within a user-established range. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"BACKFLOW" means a hydraulic condition caused by a difference in water pressure that causes an undesirable reversal of the flow as the result of a higher pressure in the system than in its supply. "BARRIER" means an obstacle intended to prevent direct access from one point to another. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"BATHER" means a person at an AQUATIC VENUE who has the potential of entering the body of water.	**NAC 444.320 "Bather"** means any person using the spa and adjoining deck area for the purpose of therapy, water sports or related activities.	REWORDED USING MAHC TERMINOLOGY
"BATHER COUNT" means the number of BATHERS in an AQUATIC VENUE at any given time. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"BATHER OCCUPANCY" means the total number of BATHERS in an AQUATIC FACILITY ENCLOSURE at any given time both in the water and on the DECK. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"BREAKPOINT CHLORINATION" means the conversion of inorganic CHLORAMINE compounds to nitrogen gas by reaction with FAC. When CHLORINE is added to water containing ammonia (from urine, sweat, or the environment, for example), it initially reacts with the ammonia to form monochloramine. If more CHLORINE is added, monochloramine is converted into DICHLORAMINE, which decomposes into nitrogen gas, hydrochloric acid and CHLORINE. The apparent residual CHLORINE decreases since it is partially reduced to hydrochloric acid. The point at which the drop occurs is referred to as the "breakpoint." The amount of free CHLORINE that must be added to the water to achieve BREAKPOINT CHLORINATION is approximately ten times the amount of combined CHLORINE in the water. As additional CHLORINE is added, all inorganic combined CHLORINE compounds disappear, resulting in a decrease in eye irritation potential and "CHLORINE odors." [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"BULKHEADS" means a movable partition that physically separates a POOL into multiple sections. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"CHEMICAL STORAGE SPACE" means a space in an AQUATIC FACILITY used for the storage of POOL chemicals such as acids, salt, or corrosive or oxidizing chemicals. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"CHLORAMINE" means a DISINFECTION BY-PRODUCT formed when CHLORINE binds to nitrogenous waste in POOL water to form an amine-containing compound with one or more CHLORINE atoms, known as combined CHLORINE. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION

PROPOSED 2017 ***SOUTHERN NEVADA HEALTH DISTRICT AQUATIC FACILITY REGULATIONS***	CURRENT - **NEVADA ADMINISTRATIVE CODE 444**	TYPE OF OR REASON FOR CHANGE
"DICHLORAMINE" means a DISINFECTION BY-PRODUCT formed when CHLORINE binds to nitrogenous waste in POOL water to form an amine-containing compound with two CHLORINE atoms ($NHCl_2$). It is a known acute respiratory and ocular irritant. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"TRICHLORAMINE" means a DISINFECTION BY-PRODUCT formed when CHLORINE binds to nitrogenous waste in POOL water to form an amine-containing compound with three CHLORINE atoms (NCl_3). It is a known acute respiratory and ocular irritant. It has low solubility in water and is rapidly released into the air above POOLS where it can accumulate, particularly in indoor settings. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"CHLORINE" refers to hypochlorous acid and hypochlorite ion in aqueous solution derived from CHLORINE gas or a variety of CHLORINE-based disinfecting agents. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"AVAILABLE CHLORINE" means the amount of CHLORINE in the +1 OXIDATION state, which is the reactive, oxidized form. In contrast, chloride ion (Cl^-) is in the -1 OXIDATION state, which is the inert, reduced state. AVAILABLE CHLORINE is subdivided into FAC and combined AVAILABLE CHLORINE. POOL chemicals containing AVAILABLE CHLORINE are both oxidizers and DISINFECTANTS. Elemental CHLORINE (Cl_2) is defined as containing 100 percent AVAILABLE CHLORINE. The concentration of AVAILABLE CHLORINE in water is normally reported as PPM "as Cl_2", that is, the concentration is measured on a Cl_2 basis, regardless of the source of the AVAILABLE CHLORINE. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"FREE AVAILABLE CHLORINE or FAC" means the portion of the total AVAILABLE CHLORINE that is not "combined CHLORINE" and is present as hypochlorous acid (HOCl) or hypochlorite ion (OCl^-). The PH of the water determines the relative amounts of hypochlorous acid and hypochlorite ion. HOCl is a very effective bactericide and is the active bactericide in POOL water. OCl^- is also a bactericide, but acts more slowly than HOCl. Thus, CHLORINE is a more effective bactericide at low PH than at high PH. A FAC must be maintained for adequate DISINFECTION. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"COMBUSTION DEVICE" means any appliance or equipment using fire such as gas or oil furnaces, boilers, POOL heaters, domestic water heaters, etc. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"CONTAMINATION RESPONSE PLAN" means a plan for handling contamination from formed-stool, diarrheal-stool, vomit, and blood. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"CROSS-CONNECTION" means a connection or arrangement, physical or otherwise, between a potable water supply system and a PLUMBING FIXTURE, tank, receptor, equipment, or device, through which it may be possible for non-potable, used, unclean, polluted and contaminated water, or other substances to enter into a part of such potable water system under any condition. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"CT VALUE" means a representation of the concentration of the DISINFECTANT (C) multiplied by time in minutes (T) needed for inactivation of a particular contaminant. The concentration and time are inversely proportional; therefore, the higher the concentration of the DISINFECTANT, the shorter the contact time required for inactivation. The CT VALUE can vary with PH or temperature change so these values must also be supplied to allow comparison between values. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"DECK" means surface areas serving the AQUATIC VENUE, including the PERIMETER DECK, POOL DECK, and DRY DECK.	**NAC 444.016 "Deck"** means the area around the perimeter of a public bathing or swimming facility, adjacent to the water, that is used primarily by bathers. **NAC 444.330 "Deck"** means the unobstructed area around the perimeter of a spa which is specifically used by bathers.	REWORDED USING MAHC TERMINOLOGY
"DRY DECK" means all pedestrian surface areas within the AQUATIC VENUE ENCLOSURE not subject to frequent splashing or constant wet foot traffic. The DRY DECK is not PERIMETER DECK or POOL DECK, which connect the POOL to adjacent amenities, entrances, and exits. Landscape areas are not included in this definition. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION

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"PERIMETER DECK" means the hardscape surface area immediately adjacent to and within four (4) feet (*1.2 m*) of the edge of the swimming POOL.	**NAC 444.416 "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.	**REPLACED WET DECK DEFINITION – REWORDED USING MAHC TERMINOLOGY**
"POOL DECK" means surface areas serving the AQUATIC VENUE, beyond PERIMETER DECK, which is expected to be regularly trafficked and made wet by BATHERS. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"DEEP WATER" means any part of a POOL with a depth greater than five (5) feet. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"DESIGN PROFESSIONAL" means a Nevada licensed professional engineer or a Nevada registered architect. A licensed professional engineer or a registered architect shall include his or her seal and signature on any plans and specifications submitted to the HEALTH AUTHORITY. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"DESIGNATED WALKWAY" means an exterior or interior way of passage from one part of an AQUATIC FACILITY to another for pedestrians, including, but not limited to walkways, pathways, DECKS, and stairways. This must be considered in relation to the ADA. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"DISINFECTION" means a treatment that kills or irreversibly inactivates microorganisms (e.g., bacteria, viruses, and parasites); in water treatment, a chemical (commonly CHLORINE, CHLORAMINE, or ozone) or physical process (e.g., UV radiation) can be used. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"DISINFECTION BY-PRODUCT" means a chemical compound formed by the reaction of a DISINFECTANT (e.g. CHLORINE) with a precursor (e.g. natural organic matter, nitrogenous waste from BATHERS) in a water system (POOL AND water supply). [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"EMERGENCY ACTION PLAN or EAP" means a plan that identifies the objectives that need to be met for a specific type of emergency, who will respond, what each person's role will be during the response, and what equipment is required as part of the response. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"ENCLOSURE" means an uninterrupted constructed feature or obstacle used to surround and secure an area that is intended to deter or effectively prevent unpermitted, uncontrolled, and unfettered access to an AQUATIC VENUE or FACILITY. It is designed to resist climbing (absence of handholds or footholds) and to prevent passage through it and under it.	**NAC 444.055 "Pool enclosure"** means the area inside of the fence or barrier surrounding a public bathing or swimming facility. **NAC 444.403 "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.	REPLACED WITH MAHC TERMINOLOGY
"EPA REGISTERED" means all products regulated and registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) by the U.S. Environmental Protection Agency. EPA REGISTERED products will have a registration number on the label (usually it will state "EPA Reg No." followed by a series of numbers). This registration number can be verified by using the EPA National Pesticide Information Retrieval System. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"EQUIPMENT ROOM" means a space intended for the operation of POOL pumps, filters, heaters, and controllers. This space is not intended for the storage of hazardous POOL chemicals. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"EXIT GATE" means an emergency exit, which is a gate or door allowing free exit at all times. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"EXPANSION JOINT" means a watertight joint provided in a POOL vessel used to relieve flexural stresses due to movement caused by thermal expansion/contraction. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"FLUME" means the riding channels of a WATERSLIDE which accommodate riders using or not using mats, tubes, rafts, and other transport vehicles as they slide along a path lubricated by a water flow.	**NAC 444.017 "Flume"** means a device designed to provide a descending ride into a splash pool or slide runout at the base of a water slide. Friction on the bed of the flume is minimized in all designs	REWORDED USING MAHC TERMINOLOGY

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	by providing a flowing film of water.	
"FOOT CANDLES" means a measurement of light equivalent to one lumen per square foot. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"GROUND-FAULT CIRCUIT INTERRUPTER or (GFCI)" means a device for protection of personnel that de-energizes an electrical circuit or portion thereof in the event of excessive ground current. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"HAND WASH STATION" means a location which has a hand washing sink, adjacent soap dispenser, paper towel dispenser or hand dryer, and trash receptacle. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"HEALTH AUTHORITY" means officers or agents of the Southern Nevada Health District.	**NAC 444.020 "Health authority"** means officers and agents of the Health Division or the local boards of health.	REWORDED WITH MORE SPECIFIC LANGUAGE
Not replaced in definitions section of proposed regulations	**NAC 444.345 "Hydrojet"** means a fitting which blends air and water creating a high velocity turbulent stream of air and water. [REMOVED]	**ADDRESSED UNDER 2-1002**
Not replaced in definitions section of proposed regulations	**NAC 444.347 "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. [REMOVED]	**ADDRESSED UNDER 2-1002**
"HYGIENE FACILITY" means a structure or part of a structure that contains toilet(s), SHOWER(S), HAND WASH STATION(S), and dressing capabilities serving BATHERS and PATRONS at an AQUATIC FACILITY. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"HYGIENE FIXTURES" means all components necessary for HYGIENE FACILITIES including PLUMBING FIXTURES, HAND WASH STATIONS, trash receptacles, soap dispensers, paper towel dispensers or hand dryers, and toilet paper dispensers. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"IMMINENT HEALTH HAZARD" means a serious threat to the public health or safety that is considered to exist when there is evidence sufficient to show that a product, practice, circumstance, or event creates a situation that requires immediate correction or cessation of operation to prevent injury based on the number of potential injuries and the nature, severity, and duration of the anticipated injury or illness. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"INFINITY EDGE" means a POOL wall structure and adjacent PERIMETER DECK that is designed in such a way where the top of the POOL wall and adjacent DECK are not visible from certain vantage points in the POOL or from the opposite side of the POOL. Water from the POOL flows over the edge and is captured and treated for reuse through the normal POOL filtration system. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"INLET" means wall or floor fittings where treated water is returned to the POOL. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"INTERIOR SPACE" means any substantially enclosed space having a roof and having a wall or walls which might reduce the free flow of outdoor air. Ventilation openings, fans, blowers, windows, doors, etc., shall not be construed as allowing free flow of outdoor air. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"ISLAND" means a structure inside a POOL where the perimeter is completely surrounded by the POOL water and the top is above the surface of the POOL. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"ISOLATION AND FLOTATION UNIT" means a vessel that provides a light and/ or sound free environment, contains a saturated solution of sodium chloride or magnesium sulfate having a specific gravity of 1.27 to 1.3, and is maintained at a temperature of approximately 93.5°F. It may also be referred to as an isolation tank, pods, or flotation therapy.	**NAC 444.023 "Isolation and flotation tank"** means a tank that: 1. Provides a light- and sound-free environment; and 2. Contains a saturated solution of sodium	REWORDED USING MAHC TERMINOLOGY

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	chloride or magnesium sulfate having a specific gravity of 1.27 to 1.3 and maintained at a temperature of approximately 93.5F (34.1C).	
Not replaced in definitions section of proposed regulations	**NAC 444.350 "Ladder"** means a series of vertically separated treads or rungs connected by vertical rail members or independently fastened to a vertical spa wall. [REMOVED]	REMOVED DEFINITION
"LIFEGUARD" means an individual who has successfully completed a recognized LIFEGUARD training course offered by a recognized training agency, holds a current certificate for such training, has met the pre-service requirements, and is participating in continuing in-service training requirements of the AQUATIC FACILITY. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"LIFEGUARD STATION" means a designated stand or roving zone established to monitor BATHERS in a body of water. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"LIFEGUARD SUPERVISOR" means an individual responsible for the oversight of LIFEGUARD performance and emergency response at an AQUATIC FACILITY. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"MONITORING" is the regular and purposeful observation and checking of systems or facilities and recording of data, including system alerts, excursions from acceptable ranges, and other facility issues. MONITORING includes human or electronic means. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"MOVEABLE FLOORS" means a POOL floor whose depth varies through the use of controls. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
Not replaced in definitions section of proposed regulations	**NAC 444.353 "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. [REMOVED]	REMOVED DEFINITION
"NATURAL BATHING PLACE" means any bathing place at a lake, pond, stream or similar body of water, together with any buildings and appurtenances used by the public for bathing or swimming with the express permission of the lessee or any person responsible for the premise; or advertised as a place for bathing or swimming for the public.	**NAC 444.030 "Natural bathing place"** means any bathing place at a lake, pond, stream or similar body of water, together with any buildings and appurtenances: 1. Used by the public for bathing or swimming with the express permission of the lessee or any person responsible for the premises; or 2. Openly advertised as a place for bathing or swimming by the public.	REWORDED WITH MORE SPECIFIC LANGUAGE
"NON-SUBSTANTIAL ALTERATION" means to replace all or part of any structure, circulation system or appurtenance of an aquatic venue not addressed under SUBSTANTIAL ALTERATION.	**NAC 444.061 "Remodel"** 1. 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	**REPLACED REMODEL -** REWORDED USING MAHC TERMINOLOGY

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	those of the original.	
Not replaced in definitions section of proposed regulations	**NAC 444.040 "Normal operating level"** means the overflow point on overflow gutters or the midpoint in the throat of the skimmers. [REMOVED]	REMOVED DEFINITION
Not replaced in definitions section of proposed regulations	**NAC 444.355 "Nonslip surface"** means a surface which is designed to reduce or prevent slipping of bare feet. [REMOVED]	REMOVED DEFINITION
Not replaced in definitions section of proposed regulations	**NAC 444.360 "NTU"** means nephelometric turbidity units, a measure of water clarity. [REMOVED]	REMOVED DEFINITION
"OOCYST" means the thick-walled, environmentally resistant structure released in the feces of infected animals that serves to transfer the infectious stages of sporozoan parasites (e.g., Cryptosporidium) to new hosts. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"OWNER" means any person, individual, partnership, corporation, company, association or like entity who owns, leases, or proposes to own or lease an AQUATIC VENUE or AQUATIC FACILITY. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"OXIDATION" means the process of changing the chemical structure of water contaminants by either increasing the number of oxygen atoms or reducing the number of electrons of the contaminant or other chemical reaction, which allows the contaminant to be more readily removed from the water or made more soluble in the water. It is the "chemical cleaning" of POOL water. OXIDATION can be achieved by common disinfectants (e.g., CHLORINE, bromine), SECONDARY DISINFECTION SYSTEMS (e.g. ozone) and oxidizers (e.g. potassium monopersulfate). [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"OXIDATION REDUCTION POTENTIAL or ORP" means a measure of the tendency for a solution to either gain or lose electrons; higher (more positive) OXIDATION REDUCTION POTENTIAL indicates a more oxidative solution. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"PATRON" means a BATHER or other person or occupant at an AQUATIC FACILITY who may or may not have contact with AQUATIC VENUE water either through partial or total immersion. PATRONS may not have contact with AQUATIC VENUE water, but could still be exposed to potential contamination from the AQUATIC FACILITY air, surfaces, or aerosols. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"PENINSULA or WING WALL" means a structural projection into a POOL intended to provide separation within the body of water. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"PERIMETER GUTTER SYSTEM" means the alternative to SKIMMERS as a method to remove water from the POOL'S surface for treatment. The gutter provides a level structure along the POOL perimeter versus intermittent SKIMMERS.	**NAC 444.365 "Overflow system"** means perimeter-type overflows, surface skimmers, and surface water collection systems of various design and manufacture.	**REPLACED OVERFLOW SYSTEM -** REWORDED USING MAHC TERMINOLOGY
"PERMIT" means the document issued by the HEALTH AUTHORITY that authorizes a PERSON or authorized agent of the OWNER to operate an AQUATIC VENUE. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"PERMIT HOLDER" means the person or entity that is legally responsible for the operation of the AQUATIC FACILITY. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
Not replaced in definitions section of proposed regulations	**NAC 444.370 "Person"** includes governmental agencies. [REMOVED]	REMOVED DEFINITION

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"pH" means the negative log of the concentration of hydrogen ions. When water ionizes, it produces hydrogen ions (H^+) and hydroxide ions (OH^-). If there is an excess of hydrogen ions the water is acidic. If there is an excess of hydroxide ions the water is basic. pH ranges from 0 to 14. Pure water has a pH of 7.0. If pH is higher than 7.0, the water is said to be basic, or alkaline. If the water's pH is lower than 7.0, the water is acidic. As pH is raised, more ionization occurs and CHLORINE disinfectants decrease in effectiveness. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
Not replaced in definitions section of proposed regulations	**NAC 444.375 "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. [REMOVED]	REMOVED DEFINITION
"Plumbing Fixture" means a receptacle, fixture, or device that is connected to a water supply system or discharges to a drainage system or both and may be used for the distribution and use of water; e.g. toilets, urinals, SHOWERS, and hose bibs. Such receptacles, fixtures, or devices require a supply of water, discharge liquid waste or liquid-borne solid waste, or require a supply of water and discharge waste to a drainage system. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"Pool" means a subset of AQUATIC VENUES designed to have standing water for total or partial BATHER immersion. This does not include SPAS.	**NAC 444.053 "Pool"** means any swimming pool or any structure within a public bathing or swimming facility containing an artificial body of water.	REWORDED USING MAHC TERMINOLOGY
"Activity Pool" means a water attraction designed primarily for play activity that uses constructed features and devices including pad walks, flotation devices, and similar attractions.	**NAC 444.011 "Activity pool"** means a water recreation attraction that has water-related activities such as rope ladders, rope swings, cargo nets and other similar activities designed primarily for bathers other than small children.	REWORDED USING MAHC TERMINOLOGY
"Child Amusement Lagoon" means a water attraction designed primarily for play activity that uses constructed features and devices including POOL SLIDES, shallow POOLS, children washes, and similar attractions, which are intended for use by young children.	**NAC 444.015 "Child amusement lagoon"** means a water recreation attraction that has water-related activities such as small slides, shallow pools, children washes and other similar activities designed primarily for use by small children.	REWORDED USING MAHC TERMINOLOGY
"Diving Pool" means a POOL used exclusively for diving. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"Landing Pool" means an AQUATIC VENUE or designated section of an AQUATIC VENUE located at the exit of one or more WATERSLIDE FLUMES. The body of water is intended and designed to receive a BATHER emerging from the FLUME for the purpose of terminating the SLIDE action and providing a means of exit to a DECK or walkway area. Also known as a splash POOL or catch POOL. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"Skimmer Pool" means a POOL using a SKIMMER SYSTEM. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"Surf Pool" means any POOL designed to generate waves dedicated to the activity of surfing on a surfboard or analogous surfing device commonly used in the ocean and intended for sport as opposed to the general play intent of WAVE POOLS. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION

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"THERAPY POOL" means a POOL used exclusively for aquatic therapy, physical therapy, and/or rehabilitation to treat a diagnosed injury, illness, or medical condition, wherein the therapy is provided under the direct supervision of a licensed physical therapist, occupational therapist, or athletic trainer. This could include wound patients or immunocompromised patients whose health could be impacted if there is not additional water quality protection. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"WADING POOL" means any POOL used exclusively for walking through or sitting and intended for use by young children where the depth does not exceed two (2) feet.	**NAC 444.090 "Wading pool"** means a small pool to be used mainly by nonswimming children, and those supervising the children.	REWORDED USING MAHC TERMINOLOGY
"WAVE POOL" means any POOL designed to simulate breaking or cyclic waves for the purposes of general play. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"POOL COMPANY" means any firm or self-employed individual engaged in providing POOL services at an AQUATIC FACILITY.	**REGULATIONS Governing the Certification ...in Clark County** **1.6** "Swimming Pool Service Company" means any self-employed individual or firm engaged in providing pool services at a public pool for a fee.	REWORDED WITH MORE SPECIFIC LANGUAGE
Not replaced in definitions section of proposed regulations	**NAC 444.380 "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. [REMOVED]	**REMOVED DEFINITION**
Not replaced in definitions section of proposed regulations	**NAC 444.385 "Public spa"** 1. 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. [REMOVED]	REMOVED DEFINITION
"QUALIFIED OPERATOR" means an individual, with an active HEALTH AUTHORITY registration, responsible for the operation and maintenance of the water systems and the associated infrastructure of the AQUATIC FACILITY. Examples of QUALIFIED OPERATOR responsibilities include: maintaining water quality, cleaning filters, maintaining equipment, and pool appurtenances.	**REGULATIONS Governing the Certification ...in Clark County** 1.7 **Swimming Pool Service Technician defined:** "Swimming pool service technician" or "technician" means any self-employed individual or employee of a company who provides pool services at a public pool and who is certified pursuant to these regulations. 1.8 **Swimming Pool Service Technician Apprentice defined:** "Swimming pool service technician apprentice" or "technician apprentice" means a person employed by a company to provide pool services at a public pool under the supervision of a swimming pool service	**CONSOLIDATING 3 CERTIFICATIONS INTO ONE TO PROVIDE MORE CLARITY AND EASE FOR INDUSTRY. MATCHES MAHC LANGUAGE**

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	technician, and who is certified pursuant to these regulations. 1.9 **Swimming Pool Operator defined:** "Swimming pool operator" or "pool operator" means any person who voluntarily or for remuneration performs pool services at a public pool and other duties associated with the operation of a public pool and who is certified pursuant to these regulations.	
Not replaced in definitions section of proposed regulations	**NAC 444.390 "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. [REMOVED]	REMOVED DEFINITION
"RECESSED STEPS" means a way of ingress/egress for a POOL similar to a ladder but the individual treads are recessed into the POOL wall.	**NAC 444.395 "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.	REWORDED USING MAHC TERMINOLOGY
Not replaced in definitions section of proposed regulations	**NAC 444.397 "Recessed treads"** means a series of vertically spaced cavities in the spa wall creating tread areas for stepholes. [REMOVED]	REMOVED DEFINITION
"RECIRCULATION SYSTEM" means the combination of the main drain, gutter or SKIMMER, INLETS, piping, pumps, controls, surge tank or balance tank to provide POOL water recirculation to and from the POOL and the treatment systems. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"REDUCTION EQUIVALENT DOSE BIAS or RED" means a variable used in UV system validation to account for differences in UV sensitivity between the UV system challenge microbe (e.g., MS2 virus) and the actual microbe to be inactivated (e.g., Cryptosporidium). [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"RESPONSIBLE PERSON" means an individual on-site that is responsible for ddaily testing of water chemistry and identifying the presence of any IMMINENT HEALTH HAZARDS including but not limited to: major barrier breaches, water clarity, proper gate function, and damaged or missing suction outlet cover(s) in an AQUATIC VENUE open for use when a QUALIFIED OPERATOR is not on-site at an AQUATIC FACILITY. The RESPONSIBLE PERSON is not expected to correct deficiencies found, but rather to notify the QUALIFIED OPERATOR of their findings, notify the HEALTH AUTHORITY of the closure, and to secure the enclosure from general access until the deficiency is corrected.	This definition is not in the NAC 444	ADDED DEFINITION
"ROBOTIC CLEANER" means a modular vacuum system consisting of a motor-driven, in-POOL suction device, either self-powered or powered through a low voltage cable, which is connected to a DECK-side power supply. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"RUNOUT" means that part of a WATERSLIDE where riders are intended to decelerate and/or come to a stop. The RUNOUT is a continuation of the WATERSLIDE FLUME surface.	**NAC 444.064 "Slide runout"** means a shallow flume at the end of a water slide in which the bather ends his or her slide.	REWORDED USING MAHC TERMINOLOGY
"SAFETY" (as it relates to construction items) means a design standard intended to prevent inadvertent or hazardous operation or use (i.e., a passive engineering strategy). [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"SAFETY PLAN" means a written document that has procedures, requirements and/or standards related to safety which the AQUATIC FACILITY staff must follow. These plans include training, emergency response, and operations procedures. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION

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"SANITIZE" means reducing the level of microbes to that considered safe by public health standards (*usually 99.999%*). This may be achieved through a variety of chemical or physical means such as chemical treatment, physical cleaning, or drying. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"SECONDARY DISINFECTION SYSTEMS" means those DISINFECTION processes or systems installed in addition to the STANDARD systems required on all AQUATIC VENUES, which are required to be used for INCREASED RISK AQUATIC VENUES. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"SHALLOW WATER" means any part of a POOL with a depth that does not exceed five (5) feet. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"SHOWER" means a device that sprays water on the body. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"CLEANSING SHOWER" means a SHOWER located within a HYGIENE FACILITY providing warm water and soap. The purpose of these SHOWERS is to remove contaminants including perianal fecal material, sweat, skin cells, personal care products, and dirt before BATHERS enter the AQUATIC VENUE. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"RINSE SHOWER" means a SHOWER typically located in the POOL DECK area with ambient temperature water. The main purpose is to remove dirt, sand, or organic material prior to entering the AQUATIC VENUE to reduce the introduction of contaminants and the formation of DISINFECTION BY-PRODUCTS. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"SKIMMER" means a device installed in the POOL wall whose purpose is to remove floating debris and surface water to the filter. They shall include a weir to allow for the automatic adjustment to small changes in water level, maintaining skimming of the surface water. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"SKIMMER SYSTEM" means periodic locations along the top of the POOL wall for removal of water from the POOL's surface for treatment. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"SLIDE" means an AQUATIC FEATURE where BATHERS SLIDE down from an elevated height into water. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"DROP SLIDE" means a SLIDE that drops BATHERS into the water from a height above the water versus delivering the BATHER to the water entry point. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"POOL SLIDE" means a SLIDE having a configuration as defined by the Code of Federal Regulations in 16 CFR §1207, or is similar in construction to a playground SLIDE used to allow BATHERS to SLIDE from an elevated height to a POOL. They shall include children's (tot) SLIDES and all other non-FLUME SLIDES that are mounted on the POOL DECK or within the basin of a public swimming POOL. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"WATERSLIDE" means a SLIDE that runs into a LANDING POOL or RUNOUT through a fabricated channel with flowing water.	**NAC 444.093 "Water slide"** means a water recreation attraction having one or more flumes.	REWORDED USING MAHC TERMINOLOGY
Not replaced in definitions section of proposed regulations	**NAC 444.066 "Slip resistant"** means a finish or textured surface designed to prevent or reduce slipping by bare skin in contact with it under wet conditions. [REMOVED]	REMOVED DEFINITION
Not replaced in definitions section of proposed regulations	**NAC 444.068 "Special purpose pool"** means a swimming pool that is used exclusively for supervised instruction, training, therapy, treatment or competition. [REMOVED]	REMOVED DEFINITION
"SPECTATOR" means any individual at an AQUATIC FACILITY who is present to observe an event without the potential of entering the water of any AQUATIC VENUE. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
Not replaced in definitions section of proposed regulations	**NAC 444.405 "Stairs"** means a riser and tread or a series of risers and treads extending down from the deck into the spa. [REMOVED]	REMOVED DEFINITION

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Not replaced in definitions section of proposed regulations	**NAC 444.407 "Steps"** means stairs or ladders designed to permit entry and exit to and from the spa. [REMOVED]	REMOVED DEFINITION
"STRUCTURAL CRACK" means a break or split in the POOL surface that weakens the structural integrity of the vessel. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
Not replaced in definitions section of proposed regulations	**NAC 444.075 "Swimming pool"** means any structure containing an artificial body of water that is intended to be used collectively by persons for swimming or bathing, regardless of whether a fee is charged for its use. 2. The term does not include: (a) Any structure at a private residence controlled by the owner of the residence, the use of which is limited to members of the family or invited guests of the owner; or (b) Any other kind of public bathing or swimming facility. [REMOVED]	REMOVED DEFINITION
"SUBSTANTIAL ALTERATION" means the alteration, modification, or renovation of an AQUATIC VENUE or INDOOR AQUATIC FACILITY that involves the alteration or replacement of the shell, replacement of the complete plumbing system or a complete rebuild.	**NAC 444.061 "Remodel"** 1. 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.	**REPLACED REMODEL -** REWORDED USING MAHC TERMINOLOGY
"SUBSTANTIALLY SIMILAR" means equipment that performs to the same manufacturer's specifications with identical hydraulic characteristics. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"SUPERCHLORINATION" means the addition of large quantities of CHLORINE-based chemicals to raise the FAC levels for water quality maintenance such as to kill algae, destroy odors, or improve the ability to maintain a DISINFECTANT residual. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"SUPPLEMENTAL DISINFECTION SYSTEMS" means those DISINFECTION processes or systems which are not required on an AQUATIC VENUE for health and safety reasons. They may be used to enhance overall system performance and improve water quality. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"THEORETICAL PEAK OCCUPANCY" means the anticipated peak number of BATHERS in an AQUATIC VENUE or the anticipated peak number of PATRONS of the DECKS of an AQUATIC FACILITY. This is the lower limit of peak occupancy to be used for design purposes for determining services that support occupants. THEORETICAL PEAK OCCUPANCY is used to determine the number of SHOWERS. For AQUATIC VENUES, the THEORETICAL PEAK OCCUPANCY is calculated around the type of water use or space: [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"AGITATED WATER" means an AQUATIC VENUE with mechanical means (AQUATIC FEATURES) to discharge, spray, or move the water's surface above and/or below the static water line of the AQUATIC VENUE so people are standing or playing vertically. Where there is no static water line,	This definition is not in the NAC 444	ADDED DEFINITION

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movement shall be considered above the DECK plane. [NEW]		
"**FLAT WATER**" means an AQUATIC VENUE in which the water line is static except for movement made by BATHERS usually as a horizontal use as in swimming. Diving spargers do not void the FLAT WATER definition. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"**HOT WATER**" means an AQUATIC VENUE with a water temperature over 90°F. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"**STADIUM SEATING**" means an area of high-occupancy seating provided above the POOL level for observation. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
Not replaced in definitions section of proposed regulations	**NAC 444.410 "Toxic"** means a quality which might produce an adverse physiological effect on a person. [REMOVED]	REMOVED DEFINITION
"**TRANSMISSIVITY**" means the percentage measurement of UV light able to pass through a solution. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"**TURNOVER**" means the period of time, usually expressed in hours, required to circulate a volume of water equal to the capacity of the AQUATIC VENUE.	**NAC 444.085 "Turnover cycle"** means the period of time required to completely recirculate the water in a public bathing or swimming facility through its filter and treatment systems.	REWORDED USING MAHC TERMINOLOGY
"**UNBLOCKABLE DRAIN COVER**" has the meaning ascribed in ANSI/APSP-16 2011 Standard. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"**UNDERWATER BENCH**" means a submerged seat with or without hydrotherapy jets. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"**UNDERWATER LEDGE**" means a continuous step in the POOL wall that allows swimmers to rest by standing without treading water. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
"**VARIANCE**" means a written document APPROVED by the Southern Nevada Health District Board of Health which seeks a full recusal of these Regulations and may impact the health and safety of PATRONS.	**NRS 439.200 Regulations of State Board of Health: Adoption; effect; variances; distribution** **3.** The State Board of Health may grant a variance from the requirements of a regulation if it finds that: (a) Strict application of that regulation would result in exceptional and undue hardship to the person requesting the variance; and (b) The variance, if granted, would not: (1) Cause substantial detriment to the public welfare; or (2) Impair substantially the purpose of that regulation.	ADDED DEFINITION
"**WAIVER**" means a written agreement between the HEALTH AUTHORITY and the PERMIT HOLDER that authorizes a modification of one or more regulatory requirements and has no impact on the health and safety of PATRONS. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
Not replaced in definitions section of proposed regulations	**NAC 444.415 "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. [REMOVED]	REMOVED DEFINITION

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"WATER QUALITY TESTING DEVICE or WQTD" means a product designed to measure the level of a parameter in water. A WQTD includes a device or method to provide a visual indication of a parameter level, and may include one or more reagents and accessory items. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
Not replaced in definitions section of proposed regulations	**NAC 444.092 "Water recreation attraction"** 1. means any: (a) Activity pool; (b) Child amusement lagoon; (c) Water slide; (d) Watercourse ride; or (e) Wave pool. 2. The term does not include any facility at a private residence controlled by the owner of the residence, the use of which is limited to members of the family or invited guests of the owner. [REMOVED]	**ADDRESSED IN MUCH GREATER DETAIL THOUGHOUT SECTION 2-10**
Not replaced in definitions section of proposed regulations	**NAC 444.094 "Watercourse ride"** means a water recreation attraction designed to convey bathers on inner tubes or raft-like devices, using an artificially created current, along a relatively flat watercourse. [REMOVED]	REMOVED DEFINITION
Not replaced in definitions section of proposed regulations	**NAC 444.096 "Wave pool"** means a water recreation attraction characterized by the artificial generation of waves at one end of a pool. [REMOVED]	REMOVED DEFINITION
"ZERO DEPTH ENTRY" means a sloped entry into a POOL from DECK level into the interior of the POOL as a means of access and egress. [NEW]	This definition is not in the NAC 444	ADDED DEFINITION
SECTION 2 FACILITY DESIGN AND CONSTRUCTION		
2-1 Plan Submittal		
The provisions of this Chapter apply to construction of a new AQUATIC FACILITY or AQUATIC VENUE, or the SUBSTANTIAL ALTERATION to an existing AQUATIC FACILITY or AQUATIC VENUE, unless otherwise noted. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-101 New Construction and SUBSTANTIAL ALTERATION		
2-101.1 AQUATIC FACILITY construction plans shall be designed to provide sufficient clarity to indicate the location, nature, and extent of the work proposed. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	MORE SPECIFIC REQUIREMENTS
2-101.2 AQUATIC FACILITY construction plans shall show in detail that it will conform to the provisions of these Regulations and relevant laws to protect the health and SAFETY of the facility's BATHERS and PATRONS. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	MORE SPECIFIC REQUIREMENTS
2-101.3 No person shall begin to construct a new AQUATIC FACILITY or shall substantially alter an existing AQUATIC FACILITY without first having the construction plans detailing the construction or SUBSTANTIAL ALTERATION submitted to and APPROVED by the HEALTH AUTHORITY.	**NAC 444.100 Application; plans and specifications.** (4) The submitted plans must be approved in writing before any construction is undertaken.	REWORDED USING MAHC TERMINOLOGY
2-101.4 An OWNER who allows new construction or a SUBSTANTIAL ALTERATION of an AQUATIC	NEW REQUIREMENT NOT FOUND IN	**Consistent with**

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FACILITY to begin prior to obtaining approval from the HEALTH AUTHORITY will be subject to applicable fees. Any contractor who begins new construction or a SUBSTANTIAL ALTERATION of an AQUATIC FACILITY prior to obtaining APPROVED plans may be reported to the Nevada State Contractors Board. [NEW]	CURRENT NAC 444	**current administrative policies**
2-101.5 All applications and supporting documentation, such as plans and hydraulics, must be prepared by a DESIGN PROFESSIONAL, a licensed contractor who holds a classification A license with an A-10 subclassification issued by the State Contractors' Board, or who is Nevada registered or licensed to practice his or her respective design profession as defined by the state of Nevada.	**NAC 444.100 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 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 or her seal and signature on any plans and specifications submitted to the health authority. A licensed contractor shall include his or her signature on any plans and specifications submitted to the health authority.	REWORDED USING MAHC TERMINOLOGY
2-101.6 All construction plans shall include the following statements: **(A)** "The proposed aquatic facility and all equipment shall be constructed and installed in conformity with the approved plans and specifications or approved amendments," and **(B)** "No substantial alteration, changes, additions, or equipment not specified in the approved plans or allowed in these Regulations can be made or added until the plans for such substantial alteration, changes, additions, or equipment are submitted to and approved by the health authority." [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
2-101.7 All documentation must be submitted to the HEALTH AUTHORITY electronically. **(A)** In addition, the following documents must also be submitted as hard copies a minimum of: **(1)** One complete set of plans; **(2)** One copy of the HEALTH AUTHORITY'S Construction Application; signed and stamped by the DESIGN PROFESSIONAL or licensed contractor. **(3)** One copy of the hydraulic calculations.	**NAC 444.100 Application; plans and specifications.** **3.** The plans and specifications must be submitted in triplicate. Additional copies must be submitted if requested.	REWORDED USING MAHC TERMINOLOGY
2-102 Content of Design Report		
2-102.1 Basis of Design Report **(A)** AQUATIC FACILITY plans shall include the name, address, and contact information for the OWNER and designer. Builder information must be submitted prior to the start of construction. **(B)** AQUATIC FACILITY plans shall include site information indicating at a minimum: the location	**NAC 444.110 Location.** A pool must be located where it will not be exposed to undesirable substances or surface drainage from surrounding areas.	REWORDED USING MAHC TERMINOLOGY

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of all utilities, wells, topography, natural water features, and potential sources of surface drainage and pollution which may affect the proposed AQUATIC FACILITY. (C) AQUATIC FACILITY plans shall include a site plot plan including: (1) A general map and detailed scaled drawings of the AQUATIC FACILITY site plan or floor plan with detailed locations of the AQUATIC VENUES and AQUATIC FEATURES; and (2) The locations of all water supply facilities, sources of drinking water, public and private sewers, and relative elevations of paved or other walkways and the EQUIPMENT ROOM floor shall be shown on the plans with the elevations of storm and sanitary sewer inverts and street grade.		
2-102.2 Plans and Specifications (A) Detailed scaled and dimensional drawings for each individual AQUATIC VENUE shall include an AQUATIC VENUE area plan and layout plan along with dimensioned longitudinal and transverse cross sections of the AQUATIC VENUE. (B) Detailed scaled and dimensional drawings for each individual AQUATIC VENUE shall include location and type of: (1) INLETS; (2) Overflows, (3) Gravity drains; (4) Suction outlets; (5) Overflow gutters or devices; (6) Piping; (7) Designed POOL water elevation; (8) AQUATIC FEATURES such as ladders, stairs, diving boards, SLIDES, and play features; (9) Area Lighting/Photometric; (10) POOL markings; and (11) Surface materials (C) Detailed scaled and dimensional drawings of the AQUATIC FACILITY and for each individual AQUATIC VENUE, as appropriate, shall include location and type of: (1) Design of DECK, curb, or walls enclosing the AQUATIC VENUE; (2) DECK drains; (3) Paved walkways and other hardscape features; (4) Non-slip flooring; (5) AQUATIC VENUE area finishes; (6) Drinking fountains or other sources of drinking water; (7) Entries and exits; (8) Hose bibs; (9) ENCLOSURES; (10) Telephones; and (11) Area lighting, to include a photometric layout. (D) Detailed scaled and dimensional drawings for each individual AQUATIC VENUE shall contain a flow diagram showing the location, plan, elevation, and schematics of: (1) Filters; (2) Pumps; (3) Chemical feeders and interlocks; (4) Chemical controllers and interlocks; (5) SECONDARY DISINFECTION SYSTEMS, if required; (6) SUPPLEMENTARY DISINFECTION SYSTEMS, if installed;	**NAC 444.100 Application; plans and specifications.** 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. This material will be returned to the applicant on his or her request after the review of the plans. (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.	REWORDED USING MAHC TERMINOLOGY; MORE SPECIFIC REQUIREMENTS

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(7) Ventilation devices or AIR HANDLING SYSTEMS; **(8)** Heaters; **(9)** Surge tanks, including operating levels; **(10)** BACKFLOW prevention assemblies and air gaps; **(11)** Valves; **(12)** Piping; **(13)** Flow meters; **(14)** Gauges; **(15)** Thermometers; **(16)** Test cocks; **(17)** Sight glasses; and **(18)** Drainage system for the disposal of AQUATIC VENUE water and filter wastewater. **(E)** Detailed scaled and dimensional drawings for each individual AQUATIC VENUE shall contain a schematic layout of the AQUATIC VENUE EQUIPMENT ROOM or area showing accessibility for installation and maintenance. **(F)** Detailed scaled and dimensional drawings for each individual AQUATIC VENUE shall contain a schematic layout of the AQUATIC FACILITY CHEMICAL STORAGE SPACE(s). **(G)** Detailed scaled and dimensional drawings for each AQUATIC FACILITY shall show the location and number of all available HYGIENE FACILITIES provided including dressing rooms, lockers and basket storage, SHOWERS, lavatories, and toilet fixtures.		
2-102.3 Technical Specifications **(A)** Technical specifications for the construction of each AQUATIC VENUE and all appurtenances shall accompany the drawings for the AQUATIC FACILITY plans. **(B)** The technical specifications for each AQUATIC FACILITY and each AQUATIC VENUE shall include all construction details not shown on the plans that relate to the AQUATIC FACILITY. **(C)** The technical specifications for each AQUATIC FACILITY shall include the sources of all water supplies. **(D)** Technical specifications shall include the water surface area and volume of each AQUATIC VENUE and associated water features, if applicable. **(E)** The technical specifications for each AQUATIC FACILITY and each AQUATIC VENUE shall include the THEORETICAL PEAK OCCUPANCY, respectively. **(1)** The THEORETICAL PEAK OCCUPANCY for an AQUATIC FACILITY shall be used for designing systems that serve BATHERS and PATRONS and shall incorporate non-water related areas such as DECKS and other adjacent portions of the AQUATIC FACILITY not associated with the AQUATIC VENUE. **(2)** The THEORETICAL PEAK OCCUPANCY shall be calculated by dividing the surface area in square feet of the AQUATIC VENUE by the density factor (D) that fits the specific AQUATIC VENUE being considered. **(a)** The overall density of the AQUATIC FACILITY may be adjusted as deemed appropriate by the HEALTH AUTHORITY with respect to health and SAFETY concerns related to the intended use. **(b)** The THEORETICAL PEAK OCCUPANCY for an AQUATIC FACILITY shall be determined by adding the calculations for each AQUATIC VENUE in the AQUATIC FACILITY. **(F)** The technical specifications and supplemental engineering data for each AQUATIC FACILITY and each AQUATIC VENUE shall include: **(1)** Detailed information on the type, size, operating characteristics, and rating of all	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	MORE SPECIFIC REQUIREMENTS

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mechanical and electrical equipment; **(2)** Hydraulic computations for head loss in all piping and recirculation equipment; and **(3)** Pump curves that demonstrate that the selected recirculation pump*(s)* are adequate for the calculated required flows. **(G)** The technical specifications for each AQUATIC VENUE shall include the recirculation rate, TURNOVER time, filter media, each piece of equipment, safety equipment, and any other additional information related to the project requested by the HEALTH AUTHORITY for the purposes of the construction of the AQUATIC FACILITY and each AQUATIC VENUE and all appurtenances. [NEW]		
2-103 Plan Approval		
2-103.1 New Construction **(A)** The HEALTH AUTHORITY shall clearly state on the plans the limitations of its approval, and that the review does not include structural design or structural stability of any part of the AQUATIC FACILITY. **(B)** The approval is independent of all other approvals required by other regulatory entities. The applicant must separately obtain all other required approvals and PERMITS. **(C)** The HEALTH AUTHORITY may coordinate its AQUATIC FACILITY plan review and communicate its approval with other agencies involved in the AQUATIC FACILITY construction. **(D)** The HEALTH AUTHORITY shall provide a written response to the AQUATIC FACILITY OWNER or OWNER'S representative within 30 business days of the most recent submission, whether an original or revised submission, containing, but not limited to, the following information: **(1)** Categorical items marked satisfactory, unsatisfactory, not applicable, or insufficient information; **(2)** A comment section keyed to the compliance review list shall detail unsatisfactory and insufficient information; **(3)** Indication of the HEALTH AUTHORITY approval or disapproval of the AQUATIC FACILITY construction plans; **(4)** In the case of a disapproval, specific reasons for disapproval and procedure for resubmittal; and **(5)** Reviewer's name, signature, and date of review. **(E)** The OWNER or OWNER'S agent shall contact the HEALTH AUTHORITY to schedule all required inspections identified in the plan submission process. **(F)** Additional inspections may be required by the HEALTH AUTHORITY when deemed necessary. **(G)** The AQUATIC FACILITY OWNER shall maintain at least one set of APPROVED plans made available to the HEALTH AUTHORITY on-site for as long as the AQUATIC FACILITY is in operation.	**NAC 444.102 Changes in plans; structural adequacy.** 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 State Board of Registered Professional Engineers and Land Surveyors. **NAC 444.104 Inspections.** 1. The owner or his or her 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.	REWORDED USING MAHC TERMINOLOGY
	NAC 444.104 Inspections. 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 or her agent may be required to hire a third party inspector. The third party inspector may be selected by the owner or his or her agent upon the approval of the Health	REMOVED – NA TO OUR AREA

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	Division.	
2-103.2 Non-SUBSTANTIAL ALTERATIONS **(A)** The AQUATIC FACILITY OWNER planning a non-SUBSTANTIAL ALTERATION shall make application to the HEALTH AUTHORITY to review proposed changes prior to starting the non-SUBSTANTIAL ALTERATION. **(B)** All applications and supporting documentation, such as plans and hydraulics, shall be prepared by a DESIGN PROFESSIONAL or a licensed contractor with an appropriate classification issued by the Nevada State Contractors' Board. **(C)** The AQUATIC FACILITY operator shall consult with the HEALTH AUTHORITY to determine if new or modified plans are required for approval of the non-SUBSTANTIAL ALTERATIONS proposed. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
2-103.3 Replacements **(A)** The replacement of pumps, filters, feeders, controllers, filter valves, or other similar equipment with SUBSTANTIALLY SIMILAR equipment may be done after contacting the HEALTH AUTHORITY to review the proposed changes without submission of altered AQUATIC FACILITY plans, unless the review determines the need for plan submission. **(B)** The HEALTH AUTHORITY shall provide the AQUATIC FACILITY OWNER written approval or disapproval of the proposed replacement equipment's equivalency. **(C)** The AQUATIC FACILITY OWNER accepts responsibility for proper and immediate replacement if equipment installed is not deemed equivalent by the HEALTH AUTHORITY. **(D)** Documentation of proposed, APPROVED, and disapproved replacements shall be maintained by the HEALTH AUTHORITY. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
2-104 Compliance Certificate		
2-104.1 A certificate of construction compliance shall be submitted to the HEALTH AUTHORITY for all AQUATIC FACILITY plans for new construction and SUBSTANTIAL ALTERATIONS requiring HEALTH AUTHORITY approvals. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-104.2 This certificate shall be prepared by a licensed professional and be within the scope of the licensed professional's practice as defined by state law. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-104.3 The certificate shall also include a statement that the AQUATIC FACILITY, all equipment, and appurtenances have been constructed and/or installed in accordance with APPROVED plans and specifications.	**NAC 444.102 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.	**REWORDED TO MIRROR MAHC**
2-104.4 If commissioning or testing reports for systems such as AQUATIC FACILITY lighting, air handling, recirculation, filtration, and/or DISINFECTION are conducted, then those reports shall be included in furnished documentation. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
Part 2-2 Materials		
2-201 Pools		
2-201.1 AQUATIC VENUES shall be constructed of reinforced concrete or impervious and structurally sound material(s), which provide a smooth, easily cleaned, watertight structure capable of withstanding the anticipated stresses/loads for full and empty conditions taking into consideration climatic, hydrostatic, seismic, and the integration of	**NAC 444.114 Side walls and bottoms.** 2. Pools must be constructed of concrete or other impervious and structurally rigid materials with a finish adapted to the bathing demands of different	**REWORDED TO MIRROR MAHC**

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the AQUATIC VENUE with other structural conditions and as required by other regulatory entities.	areas of the pools. All side walls and bottom surfaces must be watertight, free from structural cracks, and have a slip-resistant finish which is smooth and easily cleanable. Floors and walls below the gutter and 6-inch tile line must be white or light pastel in color and must reflect any natural or artificial light. 4. All corners formed by the intersection of walls and floors must be covered. Painting of new pools is not recommended. 5. Provision must be made for the relief of pressures which might occur as a result of unbalanced exterior hydrostatic pressures, or means must be provided for positive and continuous drainage from under the pool floor and around the pool walls wherever groundwater is present.	
2-201.2 All materials shall be inert, non-toxic, resistant to corrosion, impervious, enduring, and resistant to damages related to environmental conditions of the installation region.	**NAC 444.114 Side walls and bottoms.** 1. The side walls and bottoms of all pools must be constructed of materials which are inert, nontoxic to humans, impervious, permanent and enduring and which can withstand the anticipated loading for empty and full conditions.	**REWORDED TO MIRROR MAHC**
2-201.3 Where located in areas subject to freezing, AQUATIC VENUES and appurtenances shall be protected and designed from damage due to freezing.	**NAC 444.114 Side walls and bottoms.** 6 . Provision must be made to protect the pool structure from both internal and external stresses which may develop due to freezing.	**REWORDED TO MIRROR MAHC**
2-201.4 POOLS shall be designed in such a way to maintain their ability to retain the designed amount of water. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-201.5 All vertical walls shall have a durable finish suitable for regular scrubbing and cleaning at the waterline. **(A)** The finish shall be able to withstand daily brushing, scrubbing, and cleaning of the surface in accordance with the manufacturer's recommendations. **(B)** SKIMMER POOLS shall have a six (6) inch to 12 inch high waterline finish that meets the requirements of this section. **(C)** Gutter or perimeter overflow systems shall have a minimum finish height of two (2) inches that meets the requirements of this section. **(D)** If dark colors in excess of what is required in these Regulations are used for the POOL finish, these colors shall not extend more than 12 inches below the waterline.	**NAC 444.114 Side walls and bottoms. 3.** Any design incorporated into the construction of a pool or painted on the floor or walls must not prevent the detection of algae, sediment, a human in distress or other objects in the pool. Permission in writing from the health authority for the use of a design must be obtained before the design is used.	**REWORDED TO MIRROR MAHC**
2-201.6 POOL floors in areas less than three (3) feet deep shall have a slip resistant finish with a minimum dynamic coefficient of friction at least equal to the requirements of ANSI A137.1-2012 of 0.42 as measured by the DCOF AcuTest. [NEW]	**NAC 444.114 Side walls and bottoms.** **2. …** All side walls and bottom surfaces must be watertight, free from structural cracks, and have a slip-resistant finish which is smooth and easily cleanable….	**REWORDED TO MIRROR MAHC**
2-201.7 Stainless steel, vinyl, PVC-P, or PVC panel and liner POOL finish systems shall be acceptable provided that the system is installed on top of APPROVED materials and design	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**

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requirements as listed within this section or APPROVED by the HEALTH AUTHORITY. If at any time the liner system is damaged or cut in such a way that its integrity is compromised, the POOL shall be shut down until the system is fully repaired. [NEW]		
2-201.8 Wood, porous stone, loose pebbles, or earth shall not be permitted as an interior finish. [NEW]	**NAC 444.114 Side walls and bottoms.** 1. The side walls and bottoms of all pools must be constructed of materials which are inert, nontoxic to humans, impervious, permanent and enduring and which can withstand the anticipated loading for empty and full conditions.	**REWORDED TO MIRROR MAHC**
2-202 Indoor Aquatic Facility		
2-202.1 The interior building finishes of an INDOOR AQUATIC FACILITY shall be designed for an indoor relative humidity as not less than 80 percent. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-202.2 Mechanical Systems (A) AIR HANDLING SYSTEMS must be designed in accordance with applicable regulatory requirements. (B) Filters for outdoor-air intake shall be rated moisture-resistant.	**NAC 444.228 Ventilation.** 1. Indoor pools, 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 pools 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.	**REWORDED TO MIRROR MAHC**
2-202.3 INDOOR AQUATIC FACILITY Doors (A) INDOOR AQUATIC FACILITY doors shall either be constructed of corrosion-resistant materials or have a covering or coating designed to withstand humid and corrosive environments which is acceptable to the HEALTH AUTHORITY. (B) INDOOR AQUATIC FACILITY doors which may be exposed to temperatures below INDOOR AQUATIC FACILITY-air dew point shall have thermal breaks, insulation, and/or glazing as necessary to minimize the risk of uncontrolled condensation. (C) INDOOR AQUATIC FACILITY doors and/or door frames shall be equipped with seals and/or gaskets to minimize air leakage when the door is closed. (D) All pedestrian doors around the INDOOR AQUATIC FACILITY perimeter shall be equipped with an automatic door closer capable of closing the door completely without human assistance against the specified difference in air pressure between the INDOOR AQUATIC FACILITY and other INTERIOR SPACES.	**NAC 444.136 Barriers; exclusion of unauthorized persons.** 6. Any gate or door that opens into the pool area: (d) Must, in the case of an indoor pool, be made of metal and installed in a metal frame.	**REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS**
2-202.4 INDOOR AQUATIC FACILITY window frames shall be constructed of suitable materials or shall have a suitable covering or coating designed to withstand the expected atmosphere, not contribute to microbial growth and are constructed to minimize the risk of uncontrolled condensation. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3 Aquatic Venue Structure		
2-301 Design for Risk Management Design of AQUATIC FACILITIES and/or AQUATIC VENUE(s) shall include the OWNER and/or an aquatic risk management consultant to incorporate operational considerations such as the layout for zones of BATHER surveillance and an unobstructed view of the bottom of the AQUATIC VENUE. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**

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2-301.1 The AQUATIC VENUE shape shall provide for the safety of BATHERS and PATRONS, thorough and complete circulation of the water, the ability to clean and maintain the AQUATIC VENUE, and the supervision of BATHERS and PATRONS using the AQUATIC VENUE.	**NAC 444.112 Shape.** 1. The shape of any pool must be such that the circulation of pool water and supervision of swimmers are not impaired.	**REWORDED TO MIRROR MAHC**
2-301.2 The water in an AQUATIC VENUE shall be sufficiently clear so that the pattern of the main suction outlet is visible while the water is static. **(A)** To make this observation, the main suction outlet shall be located at the deepest part of the POOL. **(B)** The main suction outlet shall be visible at all times at any point on the DECK up to 30 feet away in a direct line of sight from main suction outlet. **(C)** For SPAS, this test shall be performed when the water is in a non-turbulent state and bubbles have been allowed to dissipate.	**NAC 444.148 Quality of water.** 5. The water must have sufficient clarity at all times so that the pattern of the main drain in any pool 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.	**REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS**
2-302 Bottom Slope		
2-302.1 The bottom slope of a POOL shall be governed by the following parameters, but WAIVERS or VARIANCES may be granted for special uses and situations so long as public safety and health are not compromised. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-302.2 In water depths under five (5) feet, the slope of the floor of all POOLS shall not exceed one (1) foot vertical drop for every 12 feet horizontal.	**NAC 444.120 Slope.** 1. Except as otherwise provided in NAC 444.1958, the floor slope in a pool must not be steeper than: (a) One in 12 in the shallow end; or	**REWORDED TO MIRROR MAHC**
2-302.3 In water depths five (5) foot and greater, the slope of the floors of all POOLS shall not exceed *one* (1) foot vertical to three (3) feet horizontal, except that POOLS designed and used for competitive diving shall be designed to meet the standards of the sanctioning organization (such as NFSHSA, NCAA, USA Diving or FINA).	**NAC 444.120 Slope.** 1. Except as otherwise provided in NAC 444.1958, the floor slope in a pool must not be steeper than: (b) One in 3 in the deep end.	**REWORDED TO MIRROR MAHC**
2-302.4 POOLS shall be designed so that they drain without leaving puddles or trapped standing water.	**NAC 444.120 Slope.** 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 pool bottom must have a definite slope toward the pool drains.	**REWORDED TO MIRROR MAHC**
2-303 Pool Access and Egress		
2-303.1 Each POOL shall have a minimum of two means of access and egress, and no less than one for each 75 feet of perimeter, with the exception of: **(A)** WATERSLIDE LANDING POOLS; **(B)** WATERSLIDE RUNOUTS; and **(C)** WAVE POOLS. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-303.2 Acceptable means of access/egress shall include stairs/handrails, grab rails/RECESSED STEPS, ladders, ramps, swimouts, and zero-depth entries. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-303.3 For POOLS wider than 30 feet, such means of access/egress shall be provided on each side of the POOL, and shall not be more than 75 feet apart.	**NAC 444.128 Ladders and stairs.** 1. Stairs or ladders must be provided at the shallow portion of a pool if the vertical distance from the bottom of the pool to the deck or walk is	**REWORDED TO MIRROR MAHC**

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	over 2 feet (0.6 meter). Stairs or ladders must be provided at the deep portion of the pool. If the pool is over 30 feet (9.1 meters) wide, such stairs or ladders must be provided at each side of the deep portion of the pool. 2. A minimum of one ladder must be provided for each 75 feet (22.3 meters) of perimeter and not less than two ladders must be provided at any pool. Where stairs are provided in a pool, one ladder may be deleted for each set of stairs provided.	
2-304 Stairs		
2-304.1 Where provided, stairs shall be constructed with slip-resistant materials.	**NAC 444.128 Ladders and stairs.** **6.** Stairs leading into the pool must be of slip-resistant design,...	**REWORDED TO MIRROR MAHC**
2-304.2 The leading horizontal and vertical edges of stair treads shall be outlined with slip-resistant contrasting tile or other permanent marking of two (2) inches on the tread and one to two (2) inches on the riser.	**NAC 444.128 Ladders and stairs.** **6. ...** The edge of the stair tread must be constructed of a material so colored as to contrast with the color of the stairs and be clearly visible and evident to bathers.	**REWORDED TO MIRROR MAHC**
2-304.3 Where stairs are provided in POOL water depths greater than five (5) feet, they shall be recessed and not protrude into the swimming area of the POOL. The lowest tread shall be at least four (4) feet below normal water elevation.	**NAC 444.128 Ladders and stairs.** 7. All stairs entering a pool must be recessed into the walls of the pool and a guardrail must be provided in the walkway around the stairwell. An exception to this will permit the construction of steps at the shallow end of the pool. An approved handrail must be provided for each set of stairs. **NAC 444.116 Limitations on depth; signs prohibiting diving.** 1. Every swimming pool must have a minimum depth in the shallow area of the main swimming pool area of not less than 3 feet (0.9 meter) or more than 3 feet 6 inches (1.1 meters) from the normal operating level to the floor. Exceptions may be made for special purpose pools, or in a recessed area of the main swimming pool where the pool is of an irregular shape such as the leg of a T, L or Z, separated from the main pool by a lifeline.	**REWORDED TO MIRROR MAHC**
2-304.4 Dimensions of stair treads shall conform to the following requirements: The tread of the first step must be between 12 inches and 18 inches, the tread of the remaining steps must be between 12 inches and 18 inches, all steps must be a minimum of 24 inches wide.	**NAC 444.128 Ladders and stairs.** 6. ... have a minimum tread of 12 inches (30 centimeters), ...	**REWORDED TO MIRROR MAHC**
2-304.5 Stair risers shall have a minimum uniform height of six (6) inches and a maximum height of 12 inches, with a tolerance of ½ inches between adjacent risers. Stairs shall not be	**NAC 444.128 Ladders and stairs.** 6. ... and a maximum rise of 10 inches (25	**REWORDED TO MIRROR MAHC**

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	used underwater to transition between two sections of POOL of different depths. Note: The bottom riser may vary due to potential cross slopes with the POOL floor; however, the bottom step riser may not exceed the maximum allowable height required by this section.	centimeters)…	
2-304.6	The top surface of the uppermost stair tread shall be located not more than 12 inches below the POOL coping or DECK.	**NAC 444.444 Spa steps and recessed steps.** 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.	**REWORDED TO MIRROR MAHC**
2-304.7	For POOLS with PERIMETER GUTTER SYSTEMS, the gutter may serve as a step, provided that the gutter is provided with a grating or cover and conforms to all construction and dimensional requirements herein specified. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-304.8	Extended treads may vary from the maximum tread depth dimension values. The maximum water depth above an extended tread must not exceed 18 inches. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-305	**Handrails**		
2-305.1	Handrail*(s)* shall be provided for each set of stairs and not obstruct access to the stair treads. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-305.2	Handrails shall be constructed of corrosion-resistant materials, and anchored securely with a space at least three (3) inches from the adjacent riser. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-305.3	The upper railing surface of handrails shall extend above the POOL coping or DECK between 34 inches and 38 inches. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-305.4	Stairs wider than five (5) feet shall have at least one additional handrail for every 10 feet of stair width. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-305.5	Handrails shall be designed to resist a load of 50 pounds per linear foot applied in any direction and independently a single concentrated load of 200 pounds applied in any direction at any location. Hand rails shall be designed to transfer these loads through the supports to the POOL or DECK structure. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-306	**Grab Rails**		
2-306.1	Where grab rails are provided, they shall be constructed of corrosion-resistant materials. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-306.2	Grab rails shall be anchored securely. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-306.3	Grab rails shall be provided at both sides of RECESSED STEPS. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-306.4	The horizontal clear space between grab rails shall be not less than 18 inches and not more than 24 inches. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-306.5	The upper railing surface of grab rails shall extend above the POOL coping or DECK a minimum of 28 inches. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**

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2-306.6 Grab rails shall be designed to resist a load of 50 pounds per linear foot applied in any direction and independently a single concentrated load of 200 pounds applied in any direction at any location. Grab rails shall be designed to transfer these loads through the supports to the POOL or DECK structure. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-307 Recessed Steps		
2-307.1 RECESSED STEPS shall: **(A)** Be slip-resistant; **(B)** Be designed to be easily cleaned; and **(C)** Drain into the POOL. [NEW]	**NAC 444.446 Recessed treads** 2. Stephole treads must be sloped to drain into the spa to prevent accumulation of dirt.	**REWORDED TO MIRROR MAHC**
2-307.2 RECESSED STEPS shall be uniformly spaced not less than six (6) inches and not more than 12 inches vertically along the POOL wall. [NEW]	**NAC 444.446 Recessed treads** 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.	**REWORDED TO MIRROR MAHC**
2-307.3 Each recessed step must be uniformly constructed to provide for a height of five (5) inches, depth of five (5) inches, and a width of 12 inches.	**NAC 444.128 Ladders and stairs.** 4. If stepholes are provided, they must be of such design that they may be readily cleaned and must drain into the pool to prevent accumulation of dirt. Stepholes must have a minimum tread of 5 inches (13 centimeters) and a minimum width of 14 inches (36 centimeters).	**REWORDED TO MIRROR MAHC**
2-307.4 The top surface of the uppermost RECESSED STEP shall be located not more than 12 inches below the POOL coping or DECK. [NEW]	**NAC 444.446 Recessed treads** 3. The vertical distance between the spa coping edge and the uppermost recessed tread must be 1 foot (30.48 cm) or less.	**REWORDED TO MIRROR MAHC**
2-307.5 For POOLS with PERIMETER GUTTER SYSTEMS, the gutter may serve as a step, provided that the gutter is provided with a grating or cover and conforms to all construction and dimensional requirements herein specified. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-308 Ladders		
2-308.1 Where provided, ladders shall be constructed of corrosion-resistant materials and be anchored securely to the DECK.	**NAC 444.128 Ladders and stairs.** 3. Pool ladders must be corrosion resistant and must be equipped with slip-resistant treads.	**REWORDED TO MIRROR MAHC**
2-308.2 Ladder Handrails **(A)** Ladders shall have two handrails. **(B)** The horizontal clear space between handrails shall be not less than 18 inches and not more than 24 inches. **(C)** The upper railing surface of handrails shall extend above the POOL coping or DECK a minimum of 28 inches. **(D)** The clear space between handrails and the POOL wall shall be not less than three (3) inches and not more than six (6) inches. **(E)** Ladders shall be designed to resist a load of 50 pounds per linear foot applied in any direction and independently a single concentrated load of 200 pounds applied in any direction at any location.	**NAC 444.128 Ladders and stairs.** 5. A side handrail extending up above and returning to the horizontal surface of the pool deck, curb, or coping must be provided at each side of each ladder or set of stepholes. There must be a clearance of not more than 5 inches (13 centimeters) or less than 3 inches (9 centimeters) between the ladder and the pool wall.	**REWORDED TO MIRROR MAHC**

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(F)	Ladders shall be designed to transfer these loads through the supports to the POOL or DECK structure.		
2-308.3	Ladder Treads	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
(A)	Ladder treads shall be slip-resistant.		
(B)	Ladder treads shall have a minimum horizontal tread depth of 1.5 inches and the distance between the horizontal tread and the POOL wall shall not be greater than four (4) inches.		
(C)	Ladder treads shall be uniformly spaced not less than seven (7) inches and not more than 12 inches vertically at the handrails.		
(D)	The top surface of the upmost ladder tread shall be located not more than 12 inches below the POOL coping, gutter, or DECK. [NEW]		
2-309	**Zero Depth (Sloped) Entries**		
2-309.1	Where ZERO DEPTH ENTRIES are provided, they shall be constructed with slip-resistant materials. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-309.2	ZERO DEPTH ENTRIES shall have a maximum floor slope of 1:12, consistent with the requirements of Section 2-302. Changes in floor slope shall be permitted.	**NAC 444.116 Limitations on depth; signs prohibiting diving.** 1. Every swimming pool must have a minimum depth in the shallow area of the main swimming pool area of not less than 3 feet (0.9 meter) or more than 3 feet 6 inches (1.1 meters) from the normal operating level to the floor. Exceptions may be made for special purpose pools, or in a recessed area of the main swimming pool where the pool is of an irregular shape such as the leg of a T, L or Z, separated from the main pool by a lifeline.	REWORDED TO MIRROR MAHC
2-309.3	Trench drains shall be used along ZERO DEPTH ENTRIES at the waterline to facilitate surface skimming.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
(A)	The trenches may be flat or follow the slope of the ZERO DEPTH ENTRY.		
(B)	Any handholds that present a trip hazard shall not be continuous along the ZERO DEPTH ENTRY. [NEW]		
2-3010	**Color and Finish**		
2-3010.1	Floors and walls below the water line shall be white or light pastel in color such that from the POOL DECK a BATHER is visible on the POOL floor and	**NAC 444.114 Side walls and bottoms.** **2. …** Floors and walls below the gutter and 6-inch tile line must be white or light pastel in color and must reflect any natural or artificial light.	**REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS**
(A)	The following items can be identified:		
(1)	Algae growth, debris or dirt within the POOL;		
(2)	Cracks in the surface finish of the POOL; and		
(3)	Suction outlets defined in Section 2-301.2.		
(B)	The finish shall be at least 6.5 on the Munsell color value scale.		
(C)	An exception shall be made for the following AQUATIC VENUE components:		
(1)	Competitive lane markings;		
(2)	Dedicated competitive diving well floors;		
(3)	Step or bench edge markings;		
(4)	Water line tiles;		
(5)	WAVE POOL and SURF POOL depth change indicator tiles; or		

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(6) Other APPROVED designs. **(D)** Munsell color values less than 6.5 or designs such as rock formations may be permitted by the HEALTH AUTHORITY as long as it does not exceed 12 inches below the water surface.		
2-3010.2 The HEALTH AUTHORITY may grant a WAIVER to the color requirements of these Regulations for Munsell color values less than 6.5./.Competitive or lap POOLS may have lane markings and end wall targets installed in accordance with FINA, NCAA, USA Swimming, NFSHSA, or other recognized STANDARDS. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-3010.3 Any graphics, color, or finish incorporated into the construction of a POOL or painted on the floor or walls must not prevent the detection of a BATHER in distress, algae, sediment, or other objects in the AQUATIC VENUE. Permission in writing from the HEALTH AUTHORITY for the use of any graphics shall be obtained before the graphics are used.	**NAC 444.114 Side walls and bottoms.** **3.** Any design incorporated into the construction of a pool or painted on the floor or walls must not prevent the detection of algae, sediment, a human in distress or other objects in the pool. Permission in writing from the health authority for the use of a design must be obtained before the design is used.	REWORDED TO MIRROR MAHC
2-3011 Walls		
2-3011.1 POOL walls shall be plumb within a plus or minus (+/-) three degree tolerance, unless the wall design requires structural support ledges and slopes below to support the upper wall. Refer to **Figure 2-3011.3**. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3011.2 All corners created by adjoining floors and walls must be of a coved design.	**NAC 444.114 Side walls and bottoms.** **4.** All corners formed by the intersection of walls and floors must be covered. Painting of new pools is not recommended.	REWORDED TO MIRROR MAHC
2-3011.3 All structural support ledges and slopes of the wall shall fall entirely within a plane slope from the water line at not greater than a +/- three degree tolerance. A contrasting color shall be provided on the edges of any support ledge to draw attention to the ledge for BATHER safety. All corners created by adjoining walls shall be rounded or have a radius in both the vertical and horizontal dimensions to eliminate sharp corners. There shall be no projections from a POOL wall with the exception of structures or elements such as stairs, grab rails, ladders, handholds, PENINSULAS, WING WALLS, underwater lights, safety ropes, WATERSLIDES, play features, other APPROVED POOL amenities, UNDERWATER BENCHES, and UNDERWATER LEDGES as described in this section. Refer to **Figure 2-3011.3**. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-3012 Structural Stability		
2-3012.1 POOLS shall be designed to withstand the reasonably anticipated loads imposed by POOL water, BATHERS, and adjacent soils or structures. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3012.2 A hydrostatic relief valve and/or suitable under drain system shall be provided where the water table exerts hydrostatic pressure to uplift the POOL when empty or drained.	**NAC 444.114 Side walls and bottoms.** 5. Provision must be made for the relief of pressures which might occur as a result of unbalanced exterior hydrostatic pressures, or means must be provided for positive and continuous drainage from under the pool floor and around the pool walls wherever groundwater is	REWORDED TO MIRROR MAHC

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	present.	
2-3012.3 POOLS and related circulation piping shall be designed with a winterizing strategy when in an area subject to freeze/thaw cycles.	**NAC 444.114 Side walls and bottoms.** 6. Provision must be made to protect the pool structure from both internal and external stresses which may develop due to freezing.	REWORDED TO MIRROR MAHC
2-3013 Handholds		
2-3013.1 Where not otherwise exempted, every POOL shall be provided with handholds (such as PERIMETER GUTTER SYSTEM, coping, horizontal bars, recessed handholds, cantilevered DECKING) around the perimeter of the POOL where the water depth at the wall exceeds 24 inches. These handholds shall be installed not greater than nine (9) inches above, or three (3) inches below static water level.	**NAC 444.130 Handholds.** 1. Every pool must be provided with a handhold around the entire perimeter of the pool, such as a perimeter overflow system, bull-nosed coping or cantilevered decking, installed not more than 9 inches (22.86 centimeters) above the waterline. 2. For special purpose pools used for instruction or competitive swimming, a handhold at water level similar to the rim of a perimeter overflow system is required.	REWORDED TO MIRROR MAHC
2-3013.2 Horizontal recesses may be used for handholds provided they are a minimum of 24 inches long, a minimum of four (4) inches high and between two (2) inches and three (3) inches deep. (A) Horizontal recesses shall drain into the POOL. (B) Horizontal recesses need not be continuous but consecutive recesses shall be separated by no more than 12 inches of wall.	**NAC 444.166 Gutters.** 2. The overflow gutter may also serve as a handhold. The overflow edge must be rounded and must not be thicker than 2 1/2 inches (6 centimeters) for the top 2 inches (5 centimeters). 3. The gutter lip must be smooth and uniform and at a precise level in a horizontal plane so far as is practical within the limits of craftsmanship.	REWORDED TO MIRROR MAHC
2-3013.3 Where PERIMETER GUTTER SYSTEMS are not provided, a coping or cantilevered DECKING of reinforced concrete or material equivalent in strength and durability, with rounded, slip-resistant edges shall be provided.	**NAC 444.130 Handholds.** 3. If a perimeter overflow system is not provided, bull-nosed coping, cantilevered decking of reinforced concrete or material equivalent in strength and durability must be provided. The coping, decking or other material must have rounded, slip-resistant edges, and must not exceed 3 1/2 inches (8.89 centimeters) in thickness. The overhang of the coping, decking or other material must not exceed 2 inches (5.08 centimeters) nor be less than 1 inch (2.54 centimeters).	REWORDED TO MIRROR MAHC
2-3013.4 The overhang for coping or cantilevered DECKING shall not be greater than two (2) inches from the vertical plane of the POOL wall, nor less than one (1) inch.	See NAC 444.130(3)	REWORDED TO MIRROR MAHC
2-3013.5 The overhang for coping or cantilevered DECKING shall not exceed 3.5 inches in thickness for the last two (2) inches of the overhang.	**See NAC 444.130(3)**	REWORDED TO MIRROR MAHC
2-3014 Infinity Edges		
2-3014.1 Not more than fifty percent (50 percent) of the POOL perimeter shall incorporate an INFINITY EDGE detail, unless an adjacent and PATRON accessible DECK space conforming to Sections 2-601.1 and 2-601.3 is provided. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT

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2-3014.2 The length of an INFINITY EDGE shall be no more than 30 feet long when in water depths greater than five (5) feet. No maximum distance is enforced for the length of INFINITY EDGES in SHALLOW WATER five (5) feet and less. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-3014.3 Handholds conforming to the requirements of Section 2-3013 shall be provided for INFINITY EDGES, which may be separate from, or incorporated as part of the INFINITY EDGE detail. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-3014.4 Where INFINITY EDGES are provided, they shall be constructed of reinforced concrete or other impervious and structurally rigid material(s), and designed to withstand the loads imposed by POOL water, BATHERS, and adjacent soils or structures. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3014.5 Troughs, basins, or capture drains designed to receive the overflow from INFINITY EDGES shall be watertight, free from STRUCTURAL CRACKS, and have a non-toxic, smooth, and slip-resistant finish. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3015 Underwater Benches		
2-3015.1 Where provided, UNDERWATER BENCHES shall be constructed with slip-resistant materials having a minimum dynamic coefficient of friction of friction at least equal to the requirements of ANSI A137.1-2012 of 0.42 as measured by DCOF AcuTest. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3015.2 The leading horizontal and vertical edges of UNDERWATER BENCHES shall be outlined with slip-resistant color contrasting tile or other permanent marking of two (2) inches on the horizontal surface and one to two inches (1-2 inches) on the vertical surface. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3015.3 UNDERWATER BENCHES may be installed in areas of varying depths, but the maximum POOL water depth in that area shall not exceed five (5) feet. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3015.4 The maximum submerged depth of any seat or sitting bench shall be 24 inches measured from the water line. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3016 Underwater Ledges		
2-3016.1 Where UNDERWATER LEDGES are provided to enable swimmers in DEEP WATER to rest or to provide structural support for an upper wall, they shall be constructed with slip-resistant materials. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3016.2 UNDERWATER LEDGES for resting may be recessed or protrude beyond the vertical plane of the POOL wall, provided they meet the criteria for slip resistance and tread depth outlined in this section. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3016.3 UNDERWATER LEDGES for resting shall only be provided within areas of a POOL with a five (5) feet or greater water depth. (A) UNDERWATER LEDGES must start no earlier than four (4) lineal feet to the deep side of the five (5) foot slope break. (B) UNDERWATER LEDGES must be at least four (4) feet below static water level. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3016.4 UNDERWATER LEDGES for structural support of upper walls are allowed. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3016.5 The edges of UNDERWATER LEDGES shall be outlined with slip-resistant color contrasting tile or other permanent marking of not less than one (1) inch and not greater than two (2) inches. If they project past the plane of the POOL wall, the edges of UNDERWATER LEDGES shall be clearly visible from the DECK. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3016.6 UNDERWATER LEDGES shall have a maximum uniform horizontal tread depth of four (4) inches. See **Figure 2-3011.3**. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**

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2-3017 Underwater Shelves		
2-3017.1 UNDERWATER SHELVES may be constructed immediately adjacent to water shallower than five (5) feet. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3017.2 UNDERWATER SHELVES shall have a slip-resistant, color contrasting nosing at the leading horizontal and vertical edges on both the top of horizontal edges and leading vertical edges and should be viewable from the DECK or from underwater. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3017.3 UNDERWATER SHELVES shall have a maximum depth of 24 inches. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3018 Depth Markers and Markings		
2-3018.1 Location **(A)** POOL water depths shall be clearly and permanently marked at the following locations: **(1)** Minimum depth; **(2)** Maximum depth; **(3)** On both sides and at each end of the POOL; and **(4)** At the break in the floor slope between the shallow and deep portions of the POOL. **(B)** Depth markers shall be located on the vertical POOL wall and positioned to be read from within the POOL. **(C)** Where depth markings cannot be placed on the vertical wall above the water level, other means shall be used so that the markings will be plainly visible to BATHERS in the POOL. **(D)** Depth markers shall also be located on the horizontal POOL coping or DECK within 18 inches of the POOL structural wall or perimeter gutter. Existing AQUATIC VENUES must meet this requirement within two (2) years from the implementation of these Regulations. **(E)** Depth markers shall be positioned to be read while standing on the DECK facing the POOL. **(F)** Depth markers shall be installed at not more than 25 foot intervals around the POOL perimeter edge and according to the requirements of this section. In addition, for water less than five (5) feet in depth, the depth shall be marked at one (1) foot depth intervals.	**NAC 444.118 Marking depth.** 1. The depth of the water in a pool must be plainly marked in units of feet at or above the water surface on the vertical pool wall at maximum and minimum points and at the points of break between the deep and shallow portions and at intermediate increments of depth, spaced at not more than 25-foot (7.6-meter) intervals. 2. Depth markers must be in numerals not less than 4 inches (10 centimeters) in height and of a color contrasting with the background. Markers must be on both sides and at the ends of the pool. 3. The markings must be plainly visible to persons in the pool and to persons about to enter the water.	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS
2-3018.2 Construction/Size **(A)** Depth markers shall be constructed of a durable material resistant to weather conditions. **(B)** Depth markers shall be slip resistant when they are located on horizontal surfaces. **(C)** Depth markers shall have numbers with a minimum height of four (4) inches and letters with a minimum height of one (1) inch of a contrasting color with the background. **(D)** Depth markers shall be marked in units of feet and inches. **(1)** Abbreviations of "FT" and "IN" may be used in lieu of "FEET" and "INCHES." **(2)** Symbols for feet (') and inches (") shall not be permitted on water depth signs. **(3)** Metric units may be provided in addition to—but not in lieu of—units of feet and inches.[NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-3018.3 Depth markers shall be located to indicate water depth to the nearest three (3) inches, as measured from the POOL floor three (3) feet out from the POOL wall to the gutter lip, mid-point of surface SKIMMER(s), or surge weir(s). [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3018.4 Depth Marking At Break in Floor Slope **(A)** For POOLS deeper than five (5) feet, a line of contrasting color, not less than two (2) inches and not more than six (6) inches in width, shall be clearly and permanently installed on the POOL floor at the shallow side of the break in the floor slope, and extend up the POOL walls to the waterline.	**NAC 444.126 Lifelines.** 1. Devices for fastening lifelines must be installed at least 2 feet (0.6 meter) toward the shallow end from the break in grade between the shallow portion and the deep portion of a pool. These	**REWORDED TO MIRROR MAHC**

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(B) Depth marking at break in floor slope shall be constructed of a durable material resistant to local weather conditions and be slip resistant. (C) When used, a safety rope must be installed one (1) foot to the SHALLOW WATER side of the break in floor slope and contrasting band, a safety float rope shall extend across the POOL surface.	devices must be securely anchored, of corrosion resistant material and of a type which will be recessed or have no hazardous projection. 2. A lifeline with floats must be installed if required by the health authority.	
2-3018.5 Symmetrical AQUATIC VENUE designs with the deep point at the center may be allowed by providing a dual depth marking system APPROVED by the HEALTH AUTHORITY. The dual depth marking system must indicate the depth at the wall and at the deep point as measured in Section 2-3018.3. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-3018.6 Controlled-access AQUATIC VENUES (such as ACTIVITY POOL, LAZY RIVERS, and other venues with limited access) shall only require depth markers on a sign at points of entry. (A) Depth marker signs shall be clearly visible to PATRONS entering the venue. (B) All lettering and symbols shall be as required for other types of depth markers. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-3018.7 For AQUATIC VENUES with movable floors, a sign indicating movable floor and/or varied water depth shall be provided and clearly visible from the DECK. (A) The posted water depth shall be the water level to the floor of the AQUATIC VENUE according to a vertical measurement taken three (3) feet from the AQUATIC VENUE wall. (B) A sign shall be posted to inform the public that the AQUATIC VENUE has a varied depth and refer to the sign showing the current depth. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-3018.8 A minimum of two depth markers shall be provided regardless of the shape or size of a SPA. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3018.9 AQUATIC VENUES where the maximum water depth is six (6) inches or less (such as WADING POOLS, CHILD AMUSEMENT LAGOONS, and ACTIVITY POOL areas) shall not be required to have depth markings or "NO DIVING" signage. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3018.10 No Diving Markers (A) For POOL water depths five (5) feet or less, all required DECK depth markers shall be provided with "NO DIVING" warning signs along with the universal international symbol for "NO DIVING." Existing AQUATIC VENUES must meet this requirement within two (2) years from the implementation of these Regulations. (B) "NO DIVING" warning signs and symbols shall be spaced at no more than 25 foot intervals around the POOL perimeter edge. (C) "NO DIVING" markers shall be constructed of a durable material resistant to weather conditions. (D) "NO DIVING" markers shall be slip-resistant when they are located on horizontal surfaces. All lettering and symbols shall be at least four (4) inches in height.	**NAC 444.116 Limitations on depth; signs prohibiting diving.** **4.** If a pool is not designed for diving, a sign stating "NO DIVING," in contrasting characters of not less than 4 inches (10.16 centimeters) in height, must be posted.	NEW REQUIREMENT
2-3019 Moveable Floors		
2-3019.1 The moveable floor design shall: (A) Not impede the effectiveness of the water treatment system, and (B) Allow for inspection, cleaning and maintenance of the area underneath. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3019.2 The surface of the moveable floor shall be slip resistant if it is intended for installation in water depths less than five (5) feet. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3019.3 Safety (A) A strategy for preventing BATHERS from transitioning to deeper water when a moveable floor is not continuous over the entire surface area of the AQUATIC VENUE shall be provided.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**

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(B) The underside of the moveable floor shall not be accessible to BATHERS. (C) The design of a moveable floor shall protect against BATHER entrapment between the moveable floor and the POOL walls and floor. (D) If the moveable floor is operated using hydraulics, the hydraulic compounds shall be listed as safe for use in POOL water in case there is a hydraulic leak. [NEW]		
2-3019.4 Movement (A) The speed of a moveable floor shall be less than or equal to 1.5 feet per minute. (B) Use of the moveable floor portion of the POOL shall not be open to BATHERS when the floor is being raised or lowered. **Exception**: The moveable floor shall only be used for accessibility purposes under direct supervision. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3019.5 Water Depth and Markings (A) A floor depth indicator shall be provided that displays the current POOL water depth. (B) Warning markings stating "Moveable Floor" shall be provided at 25 foot intervals around the perimeter of the moveable floor. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3020 Bulkheads		
2-3020.1 The bottom of the BULKHEAD shall be designed so that a BATHER cannot be entrapped underneath or inside of the BULKHEAD. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3020.2 The BULKHEAD placement shall not interfere with the required water circulation in the POOL. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3020.3 BULKHEADS shall be fixed to their operational position(s) by a tamper-proof system. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3020.4 The gap between the BULKHEAD and the POOL wall shall be no greater than 1.5 inches. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3020.5 The BULKHEAD shall be designed to afford an acceptable handhold as required in Section 2-3013. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3020.6 Proper access and egress to the POOL as required by Section 2-303 shall be provided when the BULKHEAD is in place. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3020.7 Guard railings at least 34 inches tall shall be provided on both ends of the BULKHEAD. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3020.8 The width of the walkable area (total BULKHEAD width) of a BULKHEAD shall be greater than or equal to three feet and three inches (3 ft. 3 in.). (A) If starting platforms are installed, the width of the walkable area (total BULKHEAD width) of a BULKHEAD shall be greater than or equal to three feet and nine inches (3 ft. 9 in.). (B) Starting platforms shall be "side mount" style if BULKHEAD is less than four feet six inches (4 ft. 6 in.) wide. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-3020.9 The travel of a BULKHEAD shall be in accordance with one of the following: (A) Limited such that it cannot encroach on any required clearances of other features, such as diving boards; or (B) Designed with modifications incorporated that prevent use of other features when the required clearances have been compromised by the position of the BULKHEAD [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-4 Indoor/Outdoor Environment		
2-401 Lighting		

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2-401.1 All lighting associated with an AQUATIC FACILITY must conform to the requirements of the latest National Electrical Code (NEC). [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-401.2 Lighting as described in this subsection shall be provided for all AQUATIC VENUES. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-401.3 No lighting controls shall be accessible to PATRONS. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-401.4 Where natural lighting methods are used to meet the light level requirements of Section 2-401.5(A) during portions of the day when adequate natural lighting is available, one of the following methods shall be used to ensure that lights are turned on when natural lighting no longer meets these requirements: (A) Automatic lighting controls based on light levels or time of day, or (B) Written operations procedures where manual controls are used. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-401.5 POOL water surface and DECK light levels shall meet the following minimum maintained light levels: (A) Indoor Water Surface: 30 horizontal footcandles (323 lux) (B) Outdoor Water Surface: 10 horizontal footcandles (108 lux) (C) DECK: 10 horizontal footcandles (108 lux). [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-401.6 Overhead Lighting (A) Artificial lighting shall be provided at all AQUATIC VENUES. (B) Lighting shall illuminate all parts of the AQUATIC VENUE including the water, the depth markers, signs, entrances, HYGIENE FACILITIES, restrooms, safety equipment, and the required DECK area and walkways.	**NAC 444.142 Lighting.** 1. Artificial lighting must be provided for all public bathing or swimming facilities, natural bathing places, bathhouses, toilet rooms, dressing rooms, and equipment rooms that are to be used at night or that do not have adequate natural lighting. 2. Pools designed and maintained for use at night must be equipped with lighting designed and spaced so that all parts of the pool, including the bottom, may be readily seen without glare. 3. The lighting system for outdoor pools must be designed with sources of illumination located so as to prevent insects attracted by the lights from falling into the water.	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS
2-401.7 Underwater Lighting (A) Underwater lighting, where provided, shall be not less than eight initial rated lumens per square foot of POOL water surface area. (1) Such underwater lights, in conjunction with overhead or equivalent DECK lighting, shall be located to provide illumination so that all portions of the AQUATIC VENUE, including the AQUATIC VENUE bottom and drain(s), may be readily seen. (2) Higher underwater light levels shall be considered for deeper water to achieve this outcome. (3) Colored Lights must meet the same requirements for illumination as indicated in this Section. (B) Dimmable lights shall not be used for underwater lighting. (C) All underwater light fixture lenses shall be clear.	**NAC 444.142 Lighting.** 4. 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. 5. 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 pool lighting must be provided and not less than 2.0 watts must be employed per square foot (.093 square meter) of deck area. 6. The lenses of pool lights must be clear so that	REWORDED TO MIRROR MAHC;

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	the inside of the light is visible during inspection. 7. If lighting is not provided as required by this section, the operator of the facility or natural bathing place: (a) Shall not permit any use of the facility or bathing place after dark. (b) Shall 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.	
2-401.8 Windows and any other features providing natural light into the POOL space and overhead or equivalent DECK lighting shall be designed or arranged to inhibit or reduce glare on the POOL water surface that would prevent seeing objects on the POOL bottom. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-402 Indoor Aquatic Facility Ventilation		
2-402.1 INDOOR AQUATIC FACILITY AIR HANDLING SYSTEMS shall be designed, constructed, and installed to support the health and SAFETY of the building's PATRONS. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-402.2 The AQUATIC FACILITY OWNER shall request from the contractor installing the INDOOR AQUATIC FACILITY AIR HANDLING SYSTEM an operating manual from the manufacturer. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-402.3 (A) AIR HANDLING SYSTEM Commissioning A qualified, licensed professional shall commission the AIR HANDLING SYSTEM to verify that the installed system is operating properly in accordance with the system design. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-403 Indoor Aquatic Facility Acoustics		
2-403.1 INDOOR AQUATIC FACILITIES must receive acoustical treatment which will prevent reverberations of sound that may hinder communication.	**NAC 444.144 Acoustics.** All indoor pool enclosures must receive acoustical treatment which will prevent reverberations of sound that may result in lack of control on the part of the lifeguards or instructors.	REWORDED TO PROVIDE CONSISTENT LANGUAGE
2-404 Indoor Aquatic Facility Electrical Systems and Components		
Nothing in these Regulations shall be construed as providing relief from any applicable requirements of the NEC and local codes and amendments. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-405 Aquatic Venue Water Heating		
When designing POOL heating equipment, measures shall be taken to prevent BATHER exposure to water temperatures in excess of 104°F. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-406 First Aid Area		
Design and construction of new AQUATIC FACILITIES not directly associated with residential living quarters shall include an area designated for first aid equipment and/or treatment. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT

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2-407 Drinking Fountains		
2-407.1 A drinking fountain shall be provided inside an AQUATIC FACILITY. **(A)** Plans for alternate locations of drinking fountains, the use of bottled water, or water dispensing units may be submitted and evaluated by the HEALTH AUTHORITY. **(B)** If the drinking fountain cannot be provided inside the AQUATIC FACILITY, it shall be provided in a common use building or area adjacent to the AQUATIC FACILITY entrance and on the normal path of BATHERS going to the AQUATIC FACILITY entrance.	**NAC 444.216 Plumbing requirements.** 1. At least one drinking fountain must be made available to bathers at a public bathing or swimming facility. A raised step must be provided to enable children of all sizes to drink from the fountain without assistance.	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS
2-407.2 The drinking fountain shall be located where it is readily accessible and not a hazard to BATHERS. The drinking fountain shall not be located in a SHOWER area or toilet area. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-407.3 A single drinking fountain shall be allowed for one or more AQUATIC VENUES within an AQUATIC FACILITY. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-407.4 The drinking fountain shall be an angle jet type installed according to applicable plumbing codes. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-407.5 The drinking fountain shall be supplied with water from an approved potable water supply. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-407.6 The wastewater discharged from a drinking fountain shall be routed to an approved sanitary sewer system or other approved disposal area according to applicable plumbing codes. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-408 Trash ReceptaclesV		
2-408.1 A sufficient number of receptacles shall be provided within an AQUATIC FACILITY to ensure that trash can be disposed of properly to maintain safe and sanitary conditions.	**NAC 444.248 Required facilities.** **2.** Conveniently located rubbish containers must be provided. These containers must be emptied whenever necessary and be kept in a sanitary condition. **NAC 444.1972 Water slides: Food and drink; trash.** **2.** Trash containers must be provided to keep litter off the decks and walkways and out of the flumes and pools.	REWORDED TO MIRROR MAHC
2-408.2 Receptacles shall be designed to be closed with a lid or other cover so they remain closed until intentionally opened. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-409 Food and Drink Concessions		
Concessions for food and drink in an AQUATIC FACILITY shall meet all requirements established by the HEALTH AUTHORITY and relevant law. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-4010 Spectator Areas		
2-4010.1 An area designed for use by SPECTATORS may be located within an AQUATIC FACILITY ENCLOSURE. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT

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2-4010.2 DECK (A) When a SPECTATOR area or access to a SPECTATOR area is located within the AQUATIC FACILITY ENCLOSURE, the DECK adjacent to the area or access shall provide egress width for the SPECTATORS in addition to the width required by these Regulations. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-4010.3 SPECTATOR or other area located in a balcony within ten (10) feet of or overhanging any portion of an AQUATIC VENUE shall be designed to deter jumping or diving into the AQUATIC VENUE. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-5 Recirculation System Design, Equipment and Water Treatment		
2-501 General Equipment Standards		
2-501.1 All equipment used or proposed for use in AQUATIC FACILITIES governed under these Regulations shall be: (A) Of a proven design and construction, and (B) Listed and labeled to a specific standard for the specified equipment use by an ANSI-accredited certification organization.	**NAC 444.108 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 NAC 444.010 to 444.306, inclusive, if the health authority determines that the equipment and materials comply with standards equivalent to the NSF International Standards.	**REWORDED TO MIRROR MAHC**
2-501.2 Where standards do not exist, technical documentation shall be submitted to the HEALTH AUTHORITY to demonstrate acceptability for use in AQUATIC FACILITIES. The HEALTH AUTHORITY may require tests at the expense of the applicant, as proof of acceptability. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-502 Recirculation Systems and Equipment		
2-502.1 General Requirements Each AQUATIC VENUE shall be equipped and operated with a recirculation and filtration system capable of meeting the provisions outlined in this Section. (A) The installation of the recirculation and the filtration system components shall be performed in accordance with the designer's and manufacturer's instructions. (B) A water RECIRCULATION SYSTEM consisting of one or more pumps, pipes, return INLETS, suction outlets, tanks, filters, and other necessary equipment shall be provided.	**NAC 444.152 System for recirculation.** 1. Except as otherwise provided in NAC 444.198 to 444.1995, inclusive, and 444.202, a recirculation system, consisting of pumps, filters, water conditioning, disinfection equipment and other accessory equipment, must be provided at each public bathing or swimming facility which will recirculate, clarify and disinfect the volume of water used in the facility every 6 hours or less. 2. The patterns of recirculation developed in any pool 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	**REWORDED TO MIRROR MAHC**

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	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. 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.	
2-502.2 INLETS **(A)** The RECIRCULATION SYSTEM shall be designed with sufficient flexibility to achieve a hydraulic apportionment that will ensure the following: **(1)** Effective distribution of treated water, and **(2)** Maintenance of a uniform DISINFECTANT residual and pH throughout the AQUATIC VENUE. Alternative designs shall be allowed based on adequate engineering justification. **(B)** Effective distribution of treated water shall be accomplished by either a continuous perimeter overflow system with integral INLETS or by means of directionally adjustable INLETS adequate in design, number, and location. **(C)** POOLS shall use wall and/or floor INLETS to provide adequate mixing. **(D)** For POOLS greater than 35 feet wide, floor INLETS shall be required. **(E)** All other types of INLET systems not covered in this section shall be subject to approval by the HEALTH AUTHORITY with proper engineering justification. **(F)** INLETS shall be hydraulically sized to provide the design flow rates for each POOL area of multi-zone POOLS based on the required design TURNOVER for each zone. **(G)** INLETS shall not extend from the wall or floor. **(H)** Floor INLETS shall be spaced to effectively distribute the treated water throughout the POOL. **(I)** Floor INLETS shall be flush with the bottom of the POOL. **(1)** Distance between floor INLETS shall be no greater than 15 feet. **(2)** A row of floor INLETS shall be located within 10 feet of each side wall. **(3)** Floor INLETS, used in combination with wall INLETS, shall be spaced no greater than ten (10) feet from the nearest side wall. **(J)** Wall INLET velocity shall mix the water effectively. **(1)** INLETS shall be directionally adjustable to provide effective distribution of water. **(2)** Wall INLETS shall be spaced no greater than 15 feet apart. **(3)** INLETS shall be placed within five (5) feet of each corner of the POOL. **(4)** INLETS shall be placed at least five (5) feet from a SKIMMER. **(5)** INLETS shall be placed in each recessed or isolated area of the POOL. **(K)** INLETS shall be placed not less than 18 inches below the water level of the POOL. Wall INLETS shall not require design to provide directional flow if part of a manufactured gutter system in which the filtered return water conduit is contained within the gutter structure. **(L)** Dye testing may be required by the HEALTH AUTHORITY to evaluate the mixing characteristics of the RECIRCULATION SYSTEM. If a dye test reveals inadequate mixing in	**NAC 444.156 Inlets.** 1. Except as otherwise provided in this subsection, inlets must be rounded and smooth and installed not less than 18 inches (46 centimeters) below the normal operating level and located to produce a uniform circulation, without the existence of dead spots. In the case of a shallow pool, 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 pool wall or floor so as to create a hazard. 3. Each set of stairs must have an inlet to provide good circulation over the stairs. 4. Except as otherwise provided in subsection 6, if wall inlets are used, the distance between adjacent inlets must not exceed 15 feet (4.6 meters). 5. Except as otherwise provided in this subsection, any pool having a width greater than 40 feet (12.19 meters) must have floor inlets meeting the requirements of this subsection or a combination of wall and floor units meeting the requirements of subsection 4 and this section. If floor inlets are used: (a) They must be located so that they provide general circulation and not direct flow to floor drains; and (b) The distance between: (1) Adjacent floor inlets must not exceed 15 feet. (2) Floor units and the nearest wall must not exceed 10 feet. 6. Except as otherwise provided in subsection 5	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS

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the POOL after 20 minutes, the RECIRCULATION SYSTEM shall be adjusted or modified to assure adequate mixing.	and notwithstanding the provisions of subsection 4, any combination of wall and floor units may be used if it is shown to produce a uniform circulation. **NAC 444.168 Skimmers.** **5.** All inlets must be spaced at least 5 feet (1.5 meters) away from any skimmer. **NAC 444.477 Inlets.** 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.	
2-502.3 (A) Perimeter Overflow Systems/Gutters All POOLS shall be designed to provide skimming for the entire POOL surface area with	**NAC 444.164 Arrangements for overflow.** Every pool must be provided with overflow gutters	REWORDED TO MIRROR MAHC;

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engineering rationale provided by the DESIGN PROFESSIONAL or licensed contractor. (B) For POOLS that require a perimeter overflow system, the perimeter overflow system shall extend around the entire POOL perimeter except where noted in these Regulations. (C) ZERO DEPTH ENTRY POOLS shall have a continuous overflow trench that terminates as close to the side walls as practical including any zero-depth portion of the POOL perimeter. (D) Where a perimeter overflow system cannot be continuous, the ends of each section shall terminate as close as practical to each other. (E) The gutter system shall be designed to allow continuous removal of water from the POOL'S upper surface at a rate of at least 125 percent of the approved total recirculation flow rate chosen by the designer. (F) Gutters shall be equipped with removable grating to PERMIT ready inspection, cleaning, and repair. (G) Gutters shall be designed to prevent the entrapment of BATHER'S limbs. (H) Drop boxes, converters, return piping, or FLUMES used to convey water from the gutter shall be designed to: (1) Prevent flooding and BACKFLOW of skimmed water into the POOL, and (2) Handle at least 125 percent of the approved total recirculation flow. (I) All perimeter overflow systems shall be designed with an effective net surge capacity of not less than one gallon for each square foot of POOL surface area. (J) Surge shall be provided within a surge tank, or the gutter or filter above the normal operating level, or elsewhere in the system. (1) The tank capacity specified shall be the net capacity. (2) The DESIGN PROFESSIONAL, or licensed contractor, shall define the minimum, maximum, and normal POOL operating water levels in the surge tank. (3) The surge tank's minimum, maximum, and normal POOL operating water levels shall be marked on the tank so as to be readily visible for inspection. (4) Surge tanks, shall have overflow pipes to convey excess water to waste via an air gap or other approved BACKFLOW prevention device. (K) Gutters shall be level within a tolerance of plus or minus 1/16 inch around the perimeter of the AQUATIC VENUE. (L) Automatic makeup water supply equipment shall be provided to maintain continuous skimming of POOLS with perimeter overflow systems. (M) Makeup water shall be supplied through an air gap or other approved BACKFLOW prevention device.	or skimmers. Other kinds of overflow arrangements and pool edges, including deck level pools, may be installed if approved by the health authority. No such pool may be installed or built if a safety hazard may result. **NAC 444.166 Gutters.** 1. Except as otherwise provided in NAC 444.1968, the overflow gutter around any pool must be continuous around the pool except at stairs or recessed ladders. 2. The overflow gutter may also serve as a handhold. The overflow edge must be rounded and must not be thicker than 2 1/2 inches (6 centimeters) for the top 2 inches (5 centimeters). 3. The gutter lip must be smooth and uniform and at a precise level in a horizontal plane so far as is practical within the limits of craftsmanship. 4. The pool water level must be maintained about an inch below the gutter during periods of pool use. During daily cleanup operations the water level of the pool must be raised by the addition of water until the water overflows the crest of the gutters and flushes away the debris. 5. The overflow gutter depth below the lip must be a minimum of 3 inches (8 centimeters) at the high points between the drains. The drains must be spaced at a maximum of 15 feet (4.6 meters) between centers and a slope provided in the bottom of not less than 2 1/2 inches in 10 feet (2 percent). The gutters must be of sufficient size and shape so that floating matter entering them will not be washed back into the pool. The branch piping to each overflow gutter drain must not be less than 2 inches (5 centimeters). 6. The outlet fittings must have a clear opening in the grating at least equal to 1 1/2 times the cross sectional area of the outlet. Where large gutters are used, they must be designed to prevent entrance or entrapment of bathers' arms or legs. 7. The opening into the gutter beneath the coping must be not less than 4 inches (10 centimeters) and the interior of the gutter must be not less than 3 inches (8 centimeters) wide. 8. Disposal of water from the overflow gutters may be either to waste or may enter the recirculation system. All overflow gutters connected to the recirculation system must be connected in an	MORE SPECIFIC REQUIREMENTS

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	approved manner, such as a surge tank. 9. The gutter must be capable of removing 50 percent or more of the recirculated water and returning it to the recirculation system.	
2-502.4 SKIMMERS and Alternative Gutter Technologies Using In-POOL Surge Capacity (A) The use of manufactured direct suction SKIMMERS shall be in accordance with the manufacturer's recommendations to include the installation of an associated equalizer line and valves. (B) Where SKIMMERS are used, at least one surface SKIMMER shall be provided for each 400 square feet of surface area or fraction thereof, with a minimum of two skimmers provided for each AQUATIC VENUE. (C) Additional SKIMMERS may be required to achieve effective skimming under site-specific conditions (e.g., heavy winds and/or contaminant loading). (D) Hybrid systems that incorporate surge weirs in the overflow gutters to provide for in-POOL surge shall meet all of the requirements specified for overflow gutters with the exception of the surge or balance tank, since the surge capacity requirement will be alternately met by the in-POOL surge capacity. (1) The number of surge weirs shall be based on the individual surge weir capacity and the operational apportionment of the design recirculation flow rate. (2) The location of the required number of surge weirs shall be uniformly spaced in the gutter sections. (E) When used, the SKIMMER SYSTEM shall be designed to handle up to 100 percent of the total recirculation flow rate chosen by the designer. (F) SKIMMERS shall be so located as to provide effective skimming of the entire water surface. (G) SKIMMERS shall be located so as not to be affected by restricted flow in areas such as near steps and within small recesses. (H) Wind direction shall be considered in number and placement of SKIMMERS. (I) The flow rate for the SKIMMERS shall comply with manufacturer data plates. (J) In the absence of a maximum specified SKIMMER flow rate the flow through the SKIMMER shall not exceed 55 GPM. (K) Each SKIMMER shall have a weir that adjusts automatically to variations in water level over a minimum range of four (4) inches. (L) Each SKIMMER shall be equipped with a trimmer valve capable of distributing the total flow between individual SKIMMERS. (M) Each SKIMMER shall be level with all other SKIMMERS in the POOL within a tolerance of plus or minus ¼ inch.	**NAC 444.168 Skimmers.** 1. Each pool must be provided with at least one skimmer for each 400 square feet (37.2 square meters), or fraction thereof, of the pool area. 2. There must be no fewer than two skimmers in every pool. 3. Any skimmer used in a pool must be designated by the NSF International as complying with all applicable requirements of Standard 50, "Circulation System Components and Related Materials for Swimming Pools, Spas/Hot Tubs," of the NSF International or in the absence of applicable requirements, be approved by the health authority. A copy of this standard may be obtained from the NSF International, P.O. Box 130140, Ann Arbor, Michigan 48113, at a cost of $45. 4. The total capacity of all skimmers used must be a minimum of two-thirds of the required filter flow. Piping for skimmers used must be designed for a capacity of at least 80 percent of the required filter flow of the recirculation system, and in no case less than 30 gallons per minute (113.6 liters per minute). 5. All inlets must be spaced at least 5 feet (1.5 meters) away from any skimmer. 6. One skimmer must be placed at a point in the pool opposite the direction of prevailing summer winds. 7. All skimmers used must be equipped with an approved equalizer valve and an equalizer line with an inside diameter of not less than 2 inches (5.08 centimeters), installed not less than 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 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.	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS
2-502.5 Submerged Suction Outlet (A) Submerged suction outlets, including sumps and covers, shall be listed and labeled to	**NAC 444.158 Drains.** 1. All pools must be provided with a main drain at	REWORDED TO MIRROR MAHC;

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the requirements of ANSI/APSP-16 2011 or successor standard. (B) Unless an UNBLOCKABLE DRAIN COVER design is provided, a minimum of two (2) hydraulically balanced filtration system outlets are required in the bottom. (1) One of the outlets may be located on the bottom of a side/end wall at the deepest level. (2) The outlets shall be connected to a single main suction pipe by branch lines piped to provide hydraulic balance between the drains. (3) The branch lines shall not be valved so as to be capable of operating independently. (C) Outlets shall be spaced no more than 15 feet from the POOL side walls. (D) Outlets shall be located no less than three (3) feet apart, measuring between the centerlines of the suction outlet covers, or on separate planes. (E) Where gravity outlets are used, the main drain outlet shall be connected to a surge tank, collection tank, or balance tank/pipe. (F) The main drain system shall be designed at a minimum to handle recirculation flow of 100 percent of total design recirculation flow rate. (1) Where there are two main drain outlets, the branch pipe from each main drain outlet shall be designed to carry 100 percent of the recirculation flow rate. (2) Where three or more main drain outlets are connected by branch piping in accordance with this Section, the design flow through each branch pipe from each main drain outlet may be as follows: (a) $Q_{max}=Q_{total}$ / (N-1) where Q_{max} for each drain= Q(total recirculation rate) / (number of drains less one) . (G) The main drain suction pipe to the pump shall be equipped with a proportioning valve*(s)* to adjust the flow distribution between the main drain piping and the surface overflow system piping. (H) Flow velocities shall meet ANSI/APSP-16 2011, or successor standard, based on 100 percent design flow through each main drain cover.	the lowest point of the floor of the pool to permit the pool to be completely and easily drained. 2. The distance of each main drain from: (a) The nearest main drain must not exceed 20 feet (6.1 meters) on the centers. (b) Any side wall must not exceed 15 feet (4.6 meters). 3. The sump of each main drain must be covered with a suitable protective cover or grate securely fastened in such 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 per second. If only one main drain in the pool is connected to a pump: (a) The drain must be of antivortex design. (b) The velocity of water through the grate must not exceed 6 feet per second. 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 antivortex 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. 5. Valves or pumps used for draining pools must be sized to prevent the surcharging of the receiving drain. Multiport valves must: (a) Comply with all applicable requirements of Standard 50 of the National Sanitation Foundation. A copy of this standard may be obtained from the National Sanitation Foundation, P.O. Box 1468, Ann Arbor, Michigan 48106, at a cost of $8. (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. 7. As used in this section:	MORE SPECIFIC REQUIREMENTS

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	(a) "Antivortex drain" means a drain having a raised cover designed to prevent or minimize any suctioning effect on a person that comes into contact with the drain. (b) "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.	
2-502.6 Piping **(A)** Piping system components in contact with swimming POOL water shall be of non-toxic material, resistant to corrosion, able to withstand operating pressures, chemicals, and temperatures. **(B)** RECIRCULATION SYSTEM piping shall be designed so that water velocities do not exceed eight feet per second (8ft/s) on the discharge side of the recirculation pump unless alternative values have proper engineering justification. **(1)** Suction piping shall be sized so that the water velocity does not exceed six feet per second (6ft/s) unless alternative values have proper engineering justification. **(2)** Gravity piping shall be sized with consideration of available system head or as demonstrated by detailed hydraulic calculations at the design recirculation flow rate. **(C)** Provisions shall be made for expansion and contraction of pipes due to temperature variations. **(1)** Provisions shall be made for complete drainage of all AQUATIC VENUE piping, designed with no less than a 2% slope. **(2)** All piping shall be supported continuously or at sufficiently close intervals to prevent sagging and settlement. **(D)** All exposed piping shall be clearly marked to indicate function. **(1)** All piping shall be clearly marked to indicate type or source of water and direction of flow with clear labeling and/or color coding. **(2)** All valves shall be clearly marked to indicate function with clear labeling and/or color coding. **(3)** A complete, easily readable schematic of the entire AQUATIC VENUE RECIRCULATION SYSTEM shall be openly displayed in the mechanical room or available to maintenance and inspection personnel. **(E)** Suction and supply POOL piping shall be subjected to a static hydraulic water pressure test for the duration specified by an engineer and/or the HEALTH AUTHORITY.	**NAC 444.160 Piping.** 1. The water velocity in the piping of a public bathing or swimming facility must not exceed 10 feet (3 meters) per second for discharge piping, except that the velocity for copper pipe must not exceed 6 feet (1.8 meters) per second. Suction velocity for piping must not exceed 6 feet (1.8 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 of Standard 14 for potable water applications of the National Sanitation Foundation. A copy of this standard may be obtained from the National Sanitation Foundation, P.O. Box 1468, Ann Arbor, Michigan 48106, at a cost of $9. (b) In the absence of an applicable standard, be approved by the health authority. 3. Pipes must be 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 (0.25 percent). Gravity waste lines around any pool 6 inches (15 centimeters) or smaller must have a minimum slope of one-quarter of an inch per foot (2 percent). Lines larger than 6 inches (15 centimeters) and all outfall main lines must be designed with a size of	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS

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	pipe and slope to carry freely the maximum flows.	
2-502.7 Strainers and Pumps **(A)** All pumps, except those for vacuum filter installations, shall have a strainer/screen device on the suction side to protect the filtration and pumping equipment and a spare strainer basket must be present for each pump. **(B)** All material used in the construction of strainers and screens shall be: **(1)** Nontoxic, impervious, and enduring; **(2)** Able to withstand design stresses; and **(3)** Designed to minimize friction losses. **(C)** VFD*s* may be installed to control all recirculation and feature pumps. **(1)** The recirculation pump*(s)* shall have adequate capacity to meet the recirculation flow design requirements in accordance with the maximum TDH required by the entire RECIRCULATION SYSTEM under the most extreme operating conditions. The system design shall include an increase of 23.1 feet of head between a clean and dirty filter condition. **(2)** The pump shall be designed to maintain design recirculation flows under all conditions. **(3)** Where vacuum filters are used, a vacuum limit switch shall be provided on the pump suction line. **(4)** The vacuum limit switch shall be set for a maximum vacuum of 18 inches of mercury. **(5)** All recirculation pumps shall be self-priming or flooded-suction. **(D)** All pumps and associated motors must have equivalent horsepower ratings. **(E)** A compound vacuum-pressure gauge shall be installed on the pump or on the suction line as close to the pump as possible when pump port is unavailable or inaccessible. **(1)** A pressure gauge shall be installed on the pump or on the discharge line adjacent to the pump when the pump port is unavailable or inaccessible. **(2)** Gauges shall be installed so they can be easily read. **(3)** All gauges shall be equipped with valves to allow for servicing under operating conditions.	**NAC 444.172 Strainers.** 1. The recirculation system must include a strainer to prevent hair, lint and other solids from reaching the pump and filters. 2. Strainers must be corrosion resistant with openings not more than one-eighth of an inch in size providing a free flow area at least four times the area of the pump suction line and must be readily accessible for frequent cleaning. Valves must be installed adjacent to the strainer in order that the flow may be shut off during the cleaning or inspection. At least one spare strainer basket must be provided. 3. Strainers may not be required in systems using vacuum diatomaceous earth filters. **NAC 444.162 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. The motor must be nonoverloading in continuous operation for filtration under all conditions, but may be overloaded within the service factor for conditions of backwash and for emptying any pool. 4. A pump performance curve for the unit to be installed must be provided with the plans submitted for approval. 5. A pump used in a recirculation system must: (a) Comply with all applicable requirements of Standard 50 of the National Sanitation Foundation. A copy of this standard may be obtained from the National Sanitation Foundation, P.O. Box 1468, Ann Arbor, Michigan 48106, at a cost of $8. (b) In the absence of an applicable standard, be approved by the health authority.	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS
2-502.8 Flow Measurement and Control **(A)** A flow meter accurate to within +/- 5 percent of the actual design flow shall be provided for each filtration system. When a VFD is in use a flow meter must be accurate to within	**NAC 444.154 Rate of flow.** An adequate number of rate of flow indicators and rate of flow controllers having satisfactory range	REWORDED TO MIRROR MAHC; MORE SPECIFIC

<table>
<tr><th>PROPOSED 2017 SOUTHERN NEVADA HEALTH DISTRICT AQUATIC FACILITY REGULATIONS</th><th>CURRENT - NEVADA ADMINISTRATIVE CODE 444</th><th>TYPE OF OR REASON FOR CHANGE</th></tr>
<tr><td>+/- 2 percent.
(B) Flow meters shall be installed in accordance with the manufacturer's instructions.
(C) All pumps shall be installed with a manual adjustable discharge valve to provide for system isolation.</td><td>must be installed and properly located, so that the rate of flow either during normal circulation or during the filter backwashing operation can be determined.</td><td>REQUIREMENTS</td></tr>
<tr><td colspan="3">2-502.9 Flow Rates/Turnover Time</td></tr>
<tr><td>Table 2-502.9: Aquatic Venue Maximum Allowable Turnover Times
<table>
<tr><th>Type of Aquatic Venue</th><th>Turnover Maximum</th></tr>
<tr><td>Activity Pools</td><td>4 hours</td></tr>
<tr><td>Diving Pools</td><td>6 hours</td></tr>
<tr><td>Interactive Play*</td><td>0.5 hours</td></tr>
<tr><td>Isolation/Floatation Unit*</td><td>4 Turnovers between users</td></tr>
<tr><td>Lazy River</td><td>4 hours</td></tr>
<tr><td>Runout Slides</td><td>4 hours</td></tr>
<tr><td>Wading Pools*</td><td>0.5 hours</td></tr>
<tr><td>Child Amusement Lagoon*</td><td>0.5 hours</td></tr>
<tr><td>Wave Pools</td><td>4 hours</td></tr>
<tr><td>All Other Pools</td><td>6 hours</td></tr>
<tr><td>All Spas</td><td>0.5 hours</td></tr>
<tr><td>Surf Pools</td><td>Submit Engineering Justification from Equipment Manufacturer</td></tr>
<tr><td colspan="2">*Shall have secondary disinfection systems</td></tr>
</table></td><td>NAC 444.152 System for recirculation.
1. Except as otherwise provided in NAC 444.198 to 444.1995, inclusive, and 444.202, a recirculation system, consisting of pumps, filters, water conditioning, disinfection equipment and other accessory equipment, must be provided at each public bathing or swimming facility which will recirculate, clarify and disinfect the volume of water used in the facility every 6 hours or less.
NAC 444.198 Activity pools.
1. The recirculation and filtration systems of activity pools must have a maximum turnover cycle of 4 hours.
NAC 444.1985 Wave pools.
2. The recirculation and filtration system of wave pools must have a maximum turnover cycle of 4 hours.
NAC 444.199 Child amusement lagoons.
1. The recirculation and filtration systems of child amusement lagoons must have a maximum turnover cycle of 1 hour.
NAC 444.1995 Watercourse rides.
1. The recirculation and filtration systems of watercourse rides must have a maximum turnover cycle of 4 hours.
NAC 444.202 Wading pools: Construction. 2. A wading pool constructed after November 1, 1988, must have a maximum turnover cycle of 30 minutes.
NAC 444.207 Isolation and flotation tanks.
1. The recirculation, filtration and disinfection systems of isolation and flotation tanks must complete no fewer than four turnover cycles between users of the tank.
NAC 444.484 Circulation and filtration.
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,</td><td>REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS</td></tr>
</table>

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	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.	
(A) All AQUATIC VENUES shall comply with the above maximum allowable TURNOVER times shown in **Table 2-502.9**. (B) The TURNOVER time shall be calculated based on the total volume of water divided by the flow rate through the filtration process. (1) Unfiltered water such as water that may be withdrawn from and returned to the AQUATIC VENUE for such AQUATIC FEATURES as SLIDES by a pump separate from the filtration system, shall not factor into TURNOVER time. (C) The HEALTH AUTHORITY may grant a TURNOVER time WAIVER for AQUATIC VENUES with extreme volume or operating conditions based on a proper engineering justification. (D) TURNOVER times shall be calculated based solely on the flow rate through the filtration system as specified in **Table 2-502.9**. (E) The total volume of the AQUATIC VENUE system shall include the AQUATIC VENUE and any surge/balance tank. (F) Where water is drawn from the AQUATIC VENUE to supply water to AQUATIC FEATURES (e.g., SLIDES, tube rides), the water may be reused prior to filtration provided the DISINFECTANT and pH levels of the supply water are maintained at required levels. (G) The ratio of INTERACTIVE WATER PLAY AQUATIC VENUE feature water to filtered water shall be no greater than 3:1 in order to maintain the efficiency of the FILTRATION SYSTEM. (H) For AQUATIC FACILITIES that intend to reduce the recirculation flow rate below the minimum required design values only when the AQUATIC VENUE is closed, the flow turndown system shall be designed as follows: (1) The system flowrate shall not be reduced more than 50 percent lower than the minimum design requirements and only reduced when the AQUATIC VENUE is closed. (2) The system flowrate shall be based on ensuring the minimum water clarity required under Section 3-506 is met before opening to the public. (3) The turndown system shall be required to maintain required DISINFECTANT and pH levels at all times. (4) When the turndown system is also used to intelligently increase the recirculation flow rate above the minimum requirement, e.g., in times of peak use to maintain water quality goals more effectively, the following requirements shall not be exceeded: (a) Velocity requirements inside of pipes (per Section 2-502.6(B)) (b) Maximum filtration system flow rate; and (c) Maximum suction outlet cover rating.	**NAC 444.152 System for recirculation.** 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. 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.	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS
2-503 Filtration		
2-503.1 Filtration shall be required for all AQUATIC VENUES that recirculate water. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-503.2 The granular media filter system shall have valves and piping to allow isolation, venting, complete drainage (for maintenance or inspections), and backwashing of filters. (A) Filtration accessories shall include the following items: (1) Influent pressure gauge; (2) Effluent pressure gauge;	**NAC 444.170 Filters.** 1. Any filter used in a pool must be designated by the NSF International as complying with all applicable requirements of Standard 50, "Circulation System Components and Related	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS

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(3) Backwash sight glass or other means to view backwash water clarity; and (4) Manual air relief system. (B) Filters shall be installed with adequate clearance and facilities for ready and safe inspection, maintenance, disassembly, and repair. A means and access for easy removal of filter media shall be required. (C) High-rate granular media filters shall be designed to operate at no more than the rate specified in the NSF/ANSI 50 listing or as provided per manufacturer, whichever rating is lower. (D) The granular media filter system shall be designed to backwash each filter at a rate of at least 15 gallons per minute per square foot of filter bed surface area, unless explicitly prohibited by the filter manufacturer and approved at an alternate rate as specified in the NSF/ANSI 50 listing. (E) The minimum depth of filter media cannot be less than the depth specified by the manufacturer. (F) Influent and effluent pressure gauges shall have the capability to measure up to 20 pounds per square inch increase in the differential pressure across the filter bed in increments of one pound per square inch or less. (G) If coagulant feed systems are used, they shall be installed with the injection point located before the filters as far ahead as possible, with electrical interlocks in accordance with Section 2-504.2(J).	Materials for Swimming Pools, Spas/Hot Tubs," of the NSF International or in the absence of applicable requirements, be approved by the health authority. A copy of this standard may be obtained from the NSF International, P.O. Box 130140, Ann Arbor, Michigan 48113, at a cost of $45. Flow rates for filters must not exceed those listed by the NSF International Standard. 2. The filter plant must be provided with influent pressure gauge. 3. The filter plant 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.	
2-503.3 Precoat Filters (A) Filters should be used with the appropriate filter media as recommended by the filter manufacturer for maximum clarity and cycle length for AQUATIC VENUE use. (1) Filter media shall be listed and labeled to NSF/ANSI Standard 50 by an ANSI-accredited certification organization and within the size specifications provided by the filter manufacturer and NSF/ANSI 50. (2) Alternate types of filter media shall be permitted in accordance with the filter manufacturer's recommendation for AQUATIC VENUE use. (3) Alternate types of filter media shall be listed and labeled to NSF Standard 50 by an ANSI-accredited certification organization. (B) The design filtration rate for vacuum precoat filters shall not be greater than either: (1) 2 gallons per minute per square foot, or (2) 2.5 gallons per minute per square foot when used with a continuous precoat media feed. (C) The design filtration rate for pressure precoat filters shall not be greater than the rate specified in the NSF/ANSI 50 listing or as provided per manufacturer, whichever rating is lower. (D) The filtration surface area shall be based on the outside surface area of the media with the manufacturer's recommended thickness of precoat media. If equipment is provided for the continuous feeding of filter media to the filter influent, the equipment shall be used in accordance with the manufacturer's specifications. (E) All discharged filter media shall be disposed of according to the law.	See **NAC 444.170 Filters**	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS

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2-503.4 Cartridge Filters **(A)** The design filtration rate for surface-type cartridge filter shall not exceed the rate specified in the NSF/ANSI 50 listing or as provided per manufacturer, whichever rating is lower. **(B)** Filter cartridges shall be supplied and sized in accordance with the filter manufacturer's recommendation for AQUATIC VENUE use.	**See NAC 444.170 Filters**	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS
2-504 Disinfection and pH Control		
2-504.1 Chemical Addition Methods **(A)** DISINFECTION and PH control chemicals shall be automatically introduced through the RECIRCULATION SYSTEM. **(B)** A chemical controller, as specified in Section 2-504.2(V) shall be provided and used for MONITORING and control of disinfectant and PH feed equipment. **(C)** DISINFECTION and PH control chemicals shall be added using a feeder that meets the requirements outlined in Section 2-504.2.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-504.2 Feed Equipment **(A)** Chemical feeders shall be required on all new construction or SUBSTANTIAL ALTERATION of all AQUATIC VENUES following the adoption of these Regulations. **(B)** The AQUATIC FACILITY shall be equipped with chemical feed equipment such as flow-through chemical feeders, electrolytic chemical generators, mechanical chemical feeders, chemical feed pumps, and AUTOMATED CONTROLLERS. All chemical feeders shall be provided with an automatic means to be disabled through an electrical interlock with at least two of the following: **(1)** Recirculation pump power; **(2)** Flow meter/flow switch in the return line; and/or **(3)** Chemical control power and paddle wheel or flow cell on the chemical controller ***if*** a safety test confirms feed systems are disabled through the controller when the pump is turned off, loses prime, or filters are backwashed. **(C)** The chemical feeders shall be installed according to the manufacturer's instructions. **(D)** A physical BARRIER shall be installed between chemical feed pumps supplying acid or liquid hypochlorite solution and other POOL components to shield staff and equipment from chemical sprays and leaking connections. **(E)** Feeders shall be capable of supplying disinfectant and PH control chemicals to the AQUATIC VENUE to maintain the minimum required DISINFECTION levels at all times in accordance with these Regulations. **(F)** All CHLORINE dosing and generating equipment including erosion feeders, or in line electrolytic and brine/batch generators, shall be designed with a capacity to provide the following: **(1)** Outdoor AQUATIC VENUES: 4.0 lbs of FAC/day/10,000 gal of POOL water; **(2)** Indoor AQUATIC VENUES: 2.5 lbs FAC/day/10,000 gal of POOL water. **(G)** The rates above are suggested minimums and in all cases the engineer shall validate the feed and production equipment specified. **(H)** The injection point of DISINFECTION chemicals shall be located before any PH control chemical injection point with sufficient physical separation of the injection points to reduce the likelihood of mixing of these chemicals in the piping during periods of interruption of the RECIRCULATION SYSTEM flow.	**NAC 444.178 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, hypochlorinator or other disinfectant feeder. Except as otherwise provided in subsections 2 and 3, chemical feeders and process equipment, other than compressed chlorine gas feeders, must be designated by the NSF International as complying with all applicable requirements of Standard 50, "Circulation System Components and Related Materials for Swimming Pools, Spas/Hot Tubs," of the NSF International or in the absence of applicable requirements, be approved by the health authority. A copy of this standard may be obtained from the NSF International, P.O. Box 130140, Ann Arbor, Michigan 48113, at a cost of $45. 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. Chemical feeders must be capable of supplying not less than the equivalent of 3 pounds (1.4 kilograms) of chlorine for outdoor pools, or 1 pound (454 grams) of chlorine in the case of an indoor facility, per 10,000 gallons (37,850 liters) of facility capacity during a 24-hour period. 4. The health authority may approve other disinfecting materials or methods if the operator of	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS

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(I)	Means of injection shall not allow BACKFLOW into the chemical system from the POOL system.	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 NAC 444.148. 5. 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. **NAC 444.182 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 superchlorination, superbromination 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 NAC 444.148. 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 such 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.	
(J)	Coagulants shall be metered and injected through a pump system prior to the filters per the manufacturer's recommended rate.		
(K)	Use of compressed CHLORINE gas shall be prohibited for new construction and after SUBSTANTIAL ALTERATION to existing AQUATIC FACILITIES.		
(L)	Use of compressed CHLORINE gas in existing AQUATIC FACILITIES is covered in Section 3-503.1(D).		
(M)	Liquid solution feeders shall include positive displacement pumps such as peristaltic pumps, diaphragm pumps, venturi feeders, and piston pumps.		
(N)	Feed rates shall be locally adjusted on the pumps and also on/off controlled using an AUTOMATED CONTROLLER.		
(O)	Erosion feeders may be pressure, pressure differential, or spray erosion types.		
(1)	Dry chemicals shall be granules or tablets.		
(2)	Feeders shall have isolation valves on each side of the feeder to be closed before opening the unit.		
(3)	Erosion feeders shall use AQUATIC VENUE water post-filtration as the source water unless approved by the feeder manufacturer.		
(P)	Carbon dioxide and ozone are the only gas feed systems permitted in AQUATIC FACILITIES.		
(Q)	Proper ventilation shall be required for all gas systems.		
(R)	Where CO_2 cylinders are located indoors, a monitor and alarm shall be provided to alert of high CO_2 and/or low O_2 levels.		
(S)	Where used, UV light systems shall be installed in the RECIRCULATION SYSTEM after the filters.		
(1)	A bypass pipe that is valved on both ends shall be installed to allow maintenance of the UV unit while the POOL is in operation.		
(2)	UV system operation shall be interlocked with the recirculation pump so that power to the UV system is interrupted when there is no water flow to the UV unit.		
(T)	In-line generator(s) or brine (batch) generator(s) shall be permitted on AQUATIC VENUES.		
(1)	In-line generators shall use POOL-grade salt dosed into the AQUATIC VENUE to produce and introduce CHLORINE into the AQUATIC VENUE treatment loop through an electrolytic chamber.		
(2)	Brine *(Batch)* generators shall produce CHLORINE through an electrolytic cell.		
(3)	CHLORINE shall be produced from brines composed of POOL-grade salt.		
(4)	Electrolytic generators shall have a TDS or salt *(NaCl)* readout and a low salt indicator.		
(5)	The feed rate shall be adjustable from zero (0) to full range.		
(6)	The generator unit shall be listed and labeled to UL 1081 (for electrical/fire/shock safety) by an ANSI-accredited certification organization.		
(7)	The generator(s) shall be interlocked.		
(8)	The saline content of the POOL water shall be maintained in the required range specified by the manufacturer.		
(U)	Feeders for PH adjustment shall:		
(1)	Utilize approved substances for PH adjustment shall include but not be limited to muriatic (hydrochloric) acid, sodium bisulfate, carbon dioxide, sulfuric acid, sodium bicarbonate, and soda ash;		
(2)	Be adjustable from zero (0) to full range; and		
(3)	Have reservoirs shall be clearly marked and labeled with contents.		

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(V)	AUTOMATED CONTROLLERS shall be installed for MONITORING and turning on or off chemical feeders used for pH and disinfectants.		
(1)	A set point shall be used to target the disinfectant level and the pH level.		
2-504.3	SECONDARY DISINFECTION SYSTEMS	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
(A)	The new construction or SUBSTANTIAL ALTERATION of the following INCREASED RISK AQUATIC VENUES shall be required to use a SECONDARY DISINFECTION SYSTEM after adoption of these Regulations:		
(1)	AQUATIC VENUES designed primarily for children under 5 years old; such as:		
(a)	WADING POOLS,		
(b)	CHILD AMUSEMENT LAGOONS, and		
(c)	INTERACTIVE WATER PLAY VENUES with no standing water;		
(2)	THERAPY POOLS; and		
(3)	ISOLATION AND FLOTATION UNITS.		
(B)	If installed and labeled as SECONDARY DISINFECTION SYSTEMS, THEN THEy shall conform to all requirements specified under Section 2-504.3.		
(C)	If not labeled as SECONDARY DISINFECTION SYSTEMS, then they shall be labeled a SUPPLEMENTAL DISINFECTION SYSTEMS and conform to requirements listed under Section 2-504.4.		
(D)	3-log inactivation and OOCYST Reduction SECONDARY DISINFECTION SYSTEMS shall be designed to achieve a minimum 3-log (99.9 percent) reduction in the number of infective *Cryptosporidium parvum* OOCYSTS per pass through the SECONDARY DISINFECTION SYSTEM.		
(1)	The SECONDARY DISINFECTION SYSTEM shall be located in the treatment loop (post filtration) and treat a portion *(up to 100 percent)* of the filtration flow prior to return of the water to the AQUATIC VENUE or AQUATIC FEATURE.		
(2)	The flow rate (Q) through the SECONDARY DISINFECTION SYSTEM shall be determined based upon the total volume of the AQUATIC VENUE or AQUATIC FEATURE (V) and a prescribed dilution time (T) for theoretically reducing the number of assumed infective Cryptosporidium OOCYSTS from an initial total number of 100 million (10^8) OOCYSTS to a concentration of one OOCYST/100 mL.		
(3)	Accounting for a 3-log (99.9 percent) reduction of infective Cryptosporidium OOCYSTS through the SECONDARY DISINFECTION SYSTEM with each pass, the SECONDARY DISINFECTION SYSTEM flow rate (Q) shall be: $Q = V \times \{[14.8 - \ln(V)] / (60 \times T)\}$, where: • Q = SECONDARY DISINFECTION SYSTEM flow rate (GPM) • V = Total water volume of the AQUATIC VENUE or AQUATIC FEATURE, including surge tanks, piping, equipment, etc. (gals) • T = Dilution time (hrs.)		
(4)	The dilution time shall be the lesser of nine hours or 75 percent of the uninterrupted time an AQUATIC VENUE is closed in a 24 hour period.		
(5)	Where a SECONDARY DISINFECTION SYSTEM is installed, a means shall be installed to confirm the required flow rate to maintain a minimum 3-log *(99.9 percent)* reduction of infective Cryptosporidium OOCYSTS at the minimum flow rate.		
(E)	UV Light Systems UV equipment shall be third party validated in accordance with the practices outlined in the US EPA Ultraviolet DISINFECTANT Guidance Manual dated November, 2006, publication number EPA 815-R-06-007.		

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(1)	The US EPA Ultraviolet Disinfectant Guidance Manual shall be considered a recognized national standard in these Regulations.		
(2)	UV systems and all materials used therein shall be suitable for their intended use.		
(3)	The UV equipment shall be installed after the filtration and before addition of primary disinfectant.		
(a)	UV equipment shall be labeled with the following design specifications: maximum flow rate, minimum TRANSMISSIVITY, minimum intensity, and minimum dosage.		
(b)	An inline strainer shall be installed after the UV unit to capture broken lamp glass or sleeves.		
(4)	The equipment shall be electrically interlocked with feature pump(s) or automated feature supply valves, such that when the UV equipment fails to produce the required dosage as measured by automated sensor, the water features do not operate.		
(5)	UV systems shall not operate if the RECIRCULATION SYSTEM is not operating.		
(6)	The UV equipment shall be complete with calibrated UV sensors, which record the output of all the UV lamps installed in a system.		
(a)	Where multiple lamps are fitted, sufficient sensors shall be provided to measure each lamp.		
(b)	If the design utilizes fewer sensors than lamps, the location of lamps and sensors shall be such that the output of all lamps is adequately measured.		
(7)	The automated shut down of the UV equipment for any reason shall initiate a visual alarm or other indication which will alert staff on-site or remotely.		
(a)	Signage instructing staff or PATRONS to notify facility management shall be posted adjacent to the visual indication.		
(b)	If the AQUATIC FACILITY is not staffed, the sign shall include a means to contact management whenever the AQUATIC FACILITY is in use.		
(8)	The UV equipment shall be supplied with the appropriate validation reports and documentation for that equipment model.		
(9)	This documentation will include a graph or chart indicating the dose at which a 3-log inactivation is guaranteed for the system in question.		
(a)	This dose shall be inclusive of validation factors and RED bias.		
(b)	System performance curves that do not include such factors are not considered validated systems.		
(10)	Validation records shall include the graph indicating the minimum intensity reading required at the operational flow for the minimum RED required to achieve 3-log reduction. Where systems are validated to a specific dose, the graph shall show the minimum intensity reading required at the operational flow for that dose.		
(11)	Based on the recommended validation protocol presented in the US EPA Disinfection Guidance Manual, UV reactors certified by ÖNORM and DVGW for a Bacillus subtilis RED of 40mJ/cm^2 shall be granted 3-log Cryptosporidium and 3-log Giardia inactivation credit as required in these Regulations.		
(F)	Ozone DISINFECTION SECONDARY DISINFECTION SYSTEMS using ozone shall provide the required inactivation of Cryptosporidium in the full flow of the SECONDARY DISINFECTION SYSTEM after any side-stream has remixed into the full flow of the SECONDARY DISINFECTION SYSTEM.		
(1)	Ozone systems shall be validated by an ANSI-accredited third party testing and certification organization to confirm that they provide a minimum 3-log (99.9 percent) inactivation of Cryptosporidium in the full SECONDARY DISINFECTION SYSTEM flow after any		

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side-stream has remixed into the full SECONDARY DISINFECTION SYSTEM flow and prior to return of the water to the AQUATIC VENUE or AQUATIC FEATURE recirculation treatment loop. (2) Ozone systems and all materials used therein shall be suitable for their intended use and shall be installed: (a) In accordance with all applicable requirements, (b) As listed and labeled to a specific standard by an ANSI-accredited certification organization, and (c) As specified by the manufacturer. (3) An ozone system shall be a complete system consisting of the following (either skid-mounted or components): (a) Ozone generator; (b) Injector / injector manifold; (c) Reaction tank (contact tank) / mixing tank / degas tower; (d) Degas valve (if applicable, to vent un-dissolved gaseous ozone;, (e) Ozone destruct (to destroy un-dissolved gaseous ozone); (f) ORP monitor / controller; (g) Ambient ozone monitor / controller; (h) Air flow meter / controller; and (i) Water BACKFLOW prevention device in gas delivery system. (4) These components (or skid) shall be installed as specified by the manufacturer to maintain the required system validation as noted above. (5) The ozone generating equipment shall be designed, sized, and controlled utilizing an ORP monitor / controller (independent of and in addition to any halogen ORP monitor/controller). (a) The device shall be placed in the AQUATIC VENUE and AQUATIC FEATURE recirculation water downstream of the ozone side-stream loop and before the halogen feed location. (b) The minimum ORP reading shall be no less than 600 mV measured directly after (one to five feet (1ft. to 5 ft.)) the ozone side-stream remixes into the full flow of the RECIRCULATION SYSTEM. (c) The maximum ORP reading shall be no greater than 900 mV. (6) The ozone system injection point shall be located in the AQUATIC VENUE return line after the filtration and heating equipment, prior to the primary DISINFECTANT injection point. (a) The injection and mixing system shall not prevent the attainment of the recirculation rate required elsewhere in these Regulations. (b) An ambient ozone gas monitor/controller located adjacent to the ozone reactor/contact tank shall be utilized to disable the ozone system in the event of an ozone gas leak. (7) At the time the ozone generating equipment is installed, again after 24 hours of operation, and annually thereafter, the air space within six (6) inches of the AQUATIC VENUE water shall be tested to determine compliance of less than 0.1 PPM gaseous ozone. Results of the test shall be maintained on site for review by the HEALTH AUTHORITY. (8) Automatic shutdown shall occur under any condition that would result in the ozone system not operating within the established parameters needed to achieve 3-log inactivation of Cryptosporidium. (9) The equipment shall be electrically interlocked with AQUATIC VENUE pump*(s)* or automated feature supply valves, such that when the ozone equipment fails to produce the required dosage as measured by ORP, the AQUATIC VENUES do not operate.		

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(10) If the ORP reading for the ozone system drops below 600 mV, a visual alarm or other indication shall be initiated that will alert staff on-site or remotely. Signage to notify facility management shall be present adjacent to the visual alarm. **(11)** In order to ensure that the supplied ozone system meets all the requirements of the standard, the manufacturer shall maintain a quality system audited on a regular basis to a recognized quality standard. The ozone system shall be supplied with the appropriate validation reports and documentation for that equipment model. **(a)** Ozone validation reports shall include a graph, chart, or other documentation which clearly indicates the required operating parameters for which a 3-log inactivation is guaranteed for the system in question. **(b)** This dose shall be inclusive of validation factors. **(c)** System performance curves that do not include such factors are not considered validated systems. [NEW]		
2-504.4 Supplemental disinfection Systems **(A)** Aquatic venues that do not require secondary disinfection systems may install supplemental disinfection systems for the purpose of enhancing overall system performance and improving water quality. **(1)** Supplemental disinfection systems shall not be required on any aquatic venues. **(2)** It shall be clearly noted in the aquatic facility operating instructions that these supplemental disinfection systems do not meet the requirements of a secondary disinfection system, and as such, are only considered supplemental disinfection systems. **(3)** Supplemental disinfection systems shall meet all of the requirements of a secondary disinfection system, except: **(a)** They do not need to achieve a 3-log (99.9 percent) inactivation of Cryptosporidium parvum; and **(b)** They do not need to be able to reduce the total number of infective oocysts to one oocyst per 100 mL; and **(4)** Each system shall be clearly labeled, "Supplemental Water Treatment System—Does Not meet the requirements for secondary disinfection." **(B)** When UV is used as a supplemental disinfection system, all requirements of Section 2-504.3(F)(2) through 2-504.3(F)(5) shall be met. Water features shall not require shut off if the supplemental UV system does not produce the required dosage. **(C)** When ozone is used as a supplemental disinfection system, all requirements of Section 2-504.3(G)(2) through 2-504.3(G)(7) shall be met. The maximum ORP reading shall be no greater than 900 mV. **(D)** Only those systems that are EPA-registered for use as disinfectants in aquatic venues shall be permitted. **(1)** Copper/silver systems, and all materials used therein, shall be suitable for their intended use. **(2)** Copper/silver systems, and all materials used therein, shall be installed in accordance with all applicable requirements and manufacturer's instructions. **(E)** UV light / hydrogen peroxide combination systems shall be prohibited for use in aquatic facilities. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-504.5 Microbiological Testing Equipment Microbiological testing equipment and methods shall be: **(A)** EPA-Approved, EPA-Accepted, EPA-Equivalent,	**NAC 444.150 Sampling of water.** 1. Samples of water from each public bathing or swimming facility must be submitted to the	REWORDED TO MIRROR MAHC; MORE SPECIFIC

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(B)	Conforming to the latest edition of Standard Methods for the Examination of Water and Wastewater, or	laboratory of the Health Division once a week for bacteriological testing. This requirement may be waived for facilities maintaining approved operating records and having dependable disinfection and filtration.	REQUIREMENTS
(C)	Listed and labeled to NSF/ANSI 50 by an ANSI-accredited certification organization.	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).	
2-6	**Decks and Equipment**		
2-601	**Decks**		
2-601.1	DECKS shall be constructed in conformance with all applicable provisions of this Section.	**NAC 444.134 Decks.**	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS
(A)	DECKS shall be designed to allow for required LIFEGUARD placement for BATHER surveillance and safety equipment.	1. Except as otherwise provided in this subsection and in NAC 444.196 and 444.1995, a clear, unobstructed deck must be provided around the entire perimeter of a pool. In no case may the width of the deck be less than 4 feet (1.2 meters). A deck may be obstructed for a distance equal to not more than 10 percent of the perimeter of the pool if:	
(B)	DECKS shall have a minimum of four (4) feet of clearance from AQUATIC VENUE edge to fencing or other obstruction to allow for LIFEGUARD transit, roaming, or change of positioning to maximize viewing of the zone of BATHER surveillance as well as execution of water extrication.	(a) The design of the obstruction does not endanger the health or safety of persons using the pool;	
(C)	Access points must be provided for LIFEGUARDS to transit between LIFEGUARD positions.	(b) An unobstructed area of deck not less than 4 feet wide is provided around or through the obstruction not more than 15 feet (4.55 meters) from the edge of the pool; and	
(D)	The designer and OWNER shall consider impact on BATHER zone surveillance when determining placement of structural, operational, and theming elements. These elements may include but are not limited to:	(c) Written approval for the obstruction is obtained from the health authority before construction or installation of the obstruction.	
(1)	Chairs,	2. 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.	
(2)	Fencing,	3. The surface of the paved deck must not drain into the pool or the overflow gutter. Drainage must be conducted from the deck in a manner that will not create muddy, hazardous or objectionable conditions. Decks must slope on a minimum slope of 1/4 inch per foot (2 percent) to the drains to points at which the water will have a free, unobstructed flow to points of disposal at all times. If deck drains are provided, they must be spaced or arranged so that not more than 400 square feet (37.2 square meters) of area is tributary to each	
(3)	Landscaping elements,		
(4)	ADA access equipment, and		
(5)	AQUATIC FEATURES.		
(E)	Conditions between adjacent DECK materials, components, and concrete pours shall not have open joints or gaps larger than 3/16 inch wide, nor a maximum difference in vertical elevation of ¼ inch.		
(1)	Any change in vertical elevation shall be considered an edge condition.		
(2)	Open joints or gaps larger than 3/16 inch wide or with vertical elevations exceeding ¼ inch shall be rectified using appropriate fillers.		
(3)	The use of fillers such as caulk or sealant in joints or gaps shall be permitted for expansion and contraction.		
(F)	All DECK edges shall be beveled, rounded, or otherwise relieved to eliminate sharp corners.		
(G)	Joints in DECKING shall be provided to minimize the potential for cracks due to a change in elevation, for movement of the slab and for shrinkage control.		

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	drain and drains must not be more than 25 feet (7.6 meters) apart. Drainage from the decks must not be returned to the recirculation system. 4. The deck must have a slip-resistant surface that can be cleaned by hosing and causes no discomfort to bare feet. 5. Provision must be made to prevent the drainage of materials from lawns or landscaped areas onto the pool decks or into the pool.	
2-601.2 Finish materials for the PERIMETER DECK shall be suitable for the POOL environment, non-toxic, and substantially impervious. **(A)** Continuous watertight EXPANSION JOINT material shall be provided between PERIMETER DECKS and POOL coping. Where applicable, the EXPANSION JOINT shall be designed and constructed so as to protect the coping and its mortar bed from damage as a result of movement of the adjoining DECK. **(B)** All conditions between adjacent concrete PERIMETER DECK pours shall be constructed with watertight EXPANSION JOINTS. **(1)** Joints shall be at least 3/16 inch in continuous width. **(2)** The maximum allowable vertical differential across a joint shall be ¼ inch. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-601.3 DECKS shall be sloped away from the AQUATIC VENUE and in accordance with the following: Smooth finishes sloped at 1/8 inch per foot; moderately textured finishes sloped at ¼ inch per foot; and heavily textured finishes sloped at 3/8 inch per foot. **(A)** The slope of all DECK areas shall be in accordance with the law. **(1)** All water that touches areas defined as DECK, including water originating in the AQUATIC VENUE, shall drain effectively to either perimeter areas or to DECK drains. **(2)** Drainage shall remove AQUATIC VENUE water that splashes outside of the AQUATIC VENUE and beyond a POOL gutter system, DECK cleaning water, and rain water without leaving standing water. **(B)** The placement of DECK drains, where provided, shall effectively carry water away from the AQUATIC VENUE and off the DECK without ponding. **(C)** There shall be no direct connection between the DECK drains and the sanitary sewer system. **(1)** DECK drains shall not drain to the AQUATIC VENUE, gutter, or any RECIRCULATION SYSTEM. **(D)** Drain receptacles shall consist of non-corrosive or corrosion-resistant materials. **(E)** Drain covers shall be suitable for bare foot traffic with openings no greater than ½ inch and easily removable with a simple tool to facilitate regular cleaning. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-601.4 Materials/Slip Resistance **(A)** PERIMETER DECK and POOL DECK shall be constructed with a uniform and easily cleaned surface such as concrete, tile, manufactured or acrylic surfaces. **(B)** All DECKS shall have slip-resistant, textured finishes, which are not conducive to slipping under contact of bare feet in wet or dry conditions. All surfaces required to be slip-resistant shall have a minimum dynamic coefficient of friction at least equal to the requirements of ANSI A137.1-2012 for that installation as measured by the DCOF AcuTest. **(C)** Carpet and artificial turf shall be prohibited materials for PERIMETER DECK and POOL DECK. **(D)** Wood shall be a prohibited material for use as PERIMETER DECK. **(E)** DRY DECK shall be easily maintained and not create an IMMINENT HEALTH HAZARD.	**NAC 444.135 Use of manufactured products to resist slipping.** A manufactured product may not be used at a public bathing or swimming facility or natural bathing place to provide a slip-resistant finish or surface unless it is intended by the manufacturer to provide resistance to slipping under wet conditions.	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS

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(1) DRY DECK shall not be required to be hard-paved or impervious. **(2)** Wood DECKING may be permitted for DRY DECK. **(F)** Loose plant material or bedding shall not be permitted within PERIMETER DECKS. Stable materials are permitted.		
2-601.5 DECK Dimensions **(A)** PERIMETER DECKS shall be four (4) feet minimum in unobstructed width around the POOL perimeter. **(1)** PERIMETER DECK may serve as part of the DESIGNATED WALKWAY. **(2)** PERIMETER DECK areas shall be flush with POOL walls/copings except where special conditions exist, such as elevated beam or parapet, raised transfer walls, or as permitted by other sections of these Regulations. **(B)** PERIMETER DECKS shall be provided around 90 percent of the AQUATIC VENUE perimeter except where special conditions exist as permitted by other sections of these Regulations. **(1)** Narrow AQUATIC VENUES where the entire perimeter and depth of the POOL are readily reachable by a reaching pole and attached shepherd's crook from the PERIMETER DECK may obstruct up to 50 percent of the perimeter. **(2)** A WAIVER may be submitted addressing all access concerns regarding BATHER rescue due to DECK obstructions. **(C)** Unobstructed DECK area four (4) feet minimum in width shall be provided for access around: **(1)** Diving equipment; **(2)** Special feature stairways (such as a WATERSLIDE); **(3)** Lifeguard stands; **(4)** Diving boards; **(5)** Similar DECK equipment; **(6)** ADA access equipment; **(7)** Structural columns; and **(8)** Raised edge perimeters. **(D)** This unobstructed area may overlap the DESIGNATED WALKWAY. **(1)** Where reasonably anticipated, queuing space shall be provided at applicable equipment to minimize encroachment into the DESIGNATED WALKWAY. **(2)** Free area around equipment may consist of PERIMETER DECK and/or POOL DECK, as applicable. **(E)** A continuous and unobstructed DESIGNATED WALKWAY shall be provided in conformance with the law. **(1)** DECK furniture locations shall be designed not to intrude upon any DESIGNATED WALKWAY. **(2)** DESIGNATED WALKWAYS shall connect all site amenities, entrances and exits. **(3)** DESIGNATED WALKWAYS may consist of any combination of permitted DECK types.	**See NAC 444.134 Decks.**	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS
2-601.6 WING WALLS or PENINSULAS **(A)** WING WALLS or PENINSULAS less than 18 inches in width shall not be considered a part of the PERIMETER DECK. **(1)** A WING WALL or PENINSULA greater than 18 inches wide but less than 48 inches wide may be used by LIFEGUARD personnel but shall not be considered as part of the PERIMETER DECK. **(2)** Any WING WALL or PENINSULA intended to be accessed by LIFEGUARDS shall be constructed of slip-resistant materials.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**

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(B) If it is impractical to design a perimeter overflow system into the WING WALL or PENINSULA due to width or height, then the overflow system may bypass the WING WALL or PENINSULA. (C) WING WALLS and PENINSULAS shall be considered part of the POOL. WING WALLS and PENINSULAS shall not be accounted for in calculating the POOL perimeter. (D) WING WALLS and PENINSULAS shall be at or above the normal operating water level of the POOL. (E) DECK drainage shall not be required for WING WALLS or PENINSULAS as they are considered part of the POOL. The tops shall be crowned to prevent standing water and sloped to the POOL or overflow system. (F) Vertical depth markers shall be provided around WING WALLS and PENINSULAS in accordance with these Regulations. [NEW]		
2-601.7 ISLANDS (A) An ISLAND not more than 18 inches in width shall be designed to discourage a person from walking on the ISLAND by not providing stairs, ladders, or bridges to the ISLAND. (B) The surface of ISLANDS intended for foot traffic shall be slip resistant. (C) An ISLAND 18 inches to 48 inches wide may be allowed for use only by LIFEGUARDS. (D) Vertical depth markers shall be provided around ISLANDS in accordance with Section 2-3018.1 and visible from all sides. (E) Horizontal depth markings and warning signs shall also be required per Section 2-3018.1 if the ISLAND is designed for BATHER use. If the ISLAND is not designed for BATHER use, warning signs stating "No Entry" shall be required. (F) An ISLAND designed for BATHER traffic shall be accessible by bridge, ramp, ladder, or stairway from the POOL. (G) All bridges spanning a POOL or any other structures not intended for interactive play shall have a minimum clearance of eight (8) feet from the bottom of the POOL to any structure overhead. (H) Any bridge shall have a minimum 42 inch high BARRIER on both sides. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-601.8 Domestic water hose bibs shall be provided in sufficient quantity, spacing, and type to wash down PERIMETER DECK and POOL DECK areas using a hose of no longer than 100 ft. All hose bibs shall be equipped with appropriate BACKFLOW prevention devices.	**NAC 444.138 Hose bibs.** Hose bibs must be provided in 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.	REWORDED TO MIRROR MAHC
2-602 Diving Boards and Platforms **2-602.1** Diving boards and platforms shall be permitted only when the diving envelope and equipment conforms to the standards of one of the certifying agencies that regulate competitive diving. Such certifying agencies include FINA, NCAA, USA Diving, and NFSHSA.	**NAC 444.122 Diving area and equipment.** 1. In a pool in which diving and swimming are allowed, the area of the pool in which diving is permitted must be: (a) In the case of a rectangular pool, at one end of the pool which is separated from the main swimming area by a lifeline. (b) In the case of a T, L or Z shaped pool, in a recessed area forming one of the legs of the T, L or Z which is separated from the main swimming area by a lifeline. □ A pool designed only for diving may be located in an area which is separate from a pool designed for swimming.	REWORDED TO MIRROR MAHC

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	2. A pool for which an operating permit is issued before January 16, 1996, and in which diving is allowed must contain an adequate area and a depth of water to provide safe diving. A pool for which an operating permit is issued on or after January 16, 1996, and in which diving is allowed must contain an area and depth of water that complies with Article IV of the *American National Standard for Swimming Pools: ANSI/NSPI-1 1991*, which is hereby adopted by reference. A copy of the article may be obtained from the National Spa and Pool Institute, 2111 Eisenhower Avenue, Alexandria, Virginia 22314, at a cost of $32. 3. Diving boards, towers and platforms in excess of 3 meters in height are not allowed in a pool without special provisions, controls and definite limitations on their use. Where such boards, towers or platforms are permitted, their use must be limited to adequately trained personnel and must not be open to the general public.	
2-603 Starting Platforms		
2-603.1 Starting platforms shall be installed and conform to applicable safety standards established by FINA, USA Swimming, NCAA, NFSHSA, YMCA, or other sanctioning body. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-603.2 Starting platforms shall be installed in a minimum water depth of four (4) feet. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-603.3 The leading edge of starting platforms shall have a maximum height of 30 inches above the water surface. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-603.4 Starting platforms shall have slip resistant tread surfaces. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-603.5 Starting platforms shall be installed and secured per manufacturer's recommendations at all times when in use. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-604 Enclosures and Barriers		
2-604.1 The ENCLOSURE may consist of any combination of building envelopes, site walls, or fencing as provided for in this section. **(A)** ENCLOSURES shall be provided between CHEMICAL STORAGE SPACES, POOL, mechanical spaces, and areas accessible to the public, in accordance with local building codes. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-604.2 Construction Requirements **(A)** ENCLOSURES for AQUATIC VENUES shall not block or encumber a required emergency egress path from other structures. **(B)** Windows on a building that form part of an ENCLOSURE around an AQUATIC VENUE shall have a maximum opening width not to exceed four (4) inches.	**NAC 444.136 Barriers; exclusion of unauthorized persons.** 1. Provision must be made to exclude unauthorized persons from any pool or pool area. A pool must be surrounded by a fence, wall,	REWORDED TO MIRROR MAHC

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(C) Living or lodging units shall not enter directly into a common AQUATIC VENUE ENCLOSURE. (D) For the purposes of this Section, height shall be measured from finished grade to the top of the ENCLOSURE on the side outside of the ENCLOSURE surrounding an AQUATIC VENUE. (1) Where a change in grade occurs at an ENCLOSURE, height shall be measured from the uppermost grade to the top of the ENCLOSURE. (2) AQUATIC FACILITY ENCLOSURES shall not be less than six (6) feet in height for all new construction, SUBSTANTIAL ALTERATION, or any ENCLOSURE alterations. (3) Any vertical members in the ENCLOSURE must not be more than four (4) inches apart. Any opening at the bottom of the ENCLOSURE must not be more than four (4) inches in height. (4) The ENCLOSURE must be installed above a fixed, permanently installed solid surface. (5) Except where otherwise noted, all other BARRIERS not serving as part of an AQUATIC FACILITY ENCLOSURE shall not be less than 42 inches in height.	building or other barrier that completely encloses the pool area and otherwise complies with the requirements of this section. No part of a pool enclosure may be used for common foot traffic. 2. The barrier must be impenetrable for small children and must not offer any external handholds or footholds. 3. In the case of a swimming pool 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 (1.5 meters) in height. Courtyard-type concepts in which gates or doors open directly into a pool 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 (1.8 meters) in height. 4. Any vertical members in the barrier must not be more than 4 inches (10.16 centimeters) apart. 5. Any opening at the bottom of the barrier must not be more than 4 inches (10.16 centimeters) in height.	
2-604.3 Gates and Doors (A) Egress from a publicly accessible space within a building shall not open directly into the ENCLOSURE of the AQUATIC VENUE. (B) All primary public access gates or doors serving as part of an AQUATIC FACILITY ENCLOSURE or required AQUATIC VENUE ENCLOSURE must be self-closing and self-latching from any open position. (C) All gates or doors shall be capable of being locked from the exterior. Electronically locked gates must be equipped with a back up battery to maintain function when power is interrupted. (D) Gates or doors shall be designed in such a way that they do not prevent egress in the event of an emergency. (E) Gates shall be at least equal in height at top and bottom to the ENCLOSURE of which they are a component. (F) Unattended turnstiles shall not form a part of an AQUATIC FACILITY ENCLOSURE. (G) All public access gates exiting the ENCLOSURE shall not require the use of a key or tool. (H) EXIT GATES shall swing away from the AQUATIC VENUE ENCLOSURE except where emergency egress codes require them to swing into the AQUATIC VENUE ENCLOSURE. (I) Self-latching mechanisms: (1) Must be located not less than 3 ½ feet above finished grade and (2) Shall not be operable by small children on the outside of the ENCLOSURE around the AQUATIC VENUE. (J) For all other AQUATIC VENUES, EXIT GATES or doors shall be constructed so as to prevent unauthorized entry from outside of the ENCLOSURE around the AQUATIC VENUE. (K) In lieu of meeting the requirements of Section 2-604, AQUATIC FACILITIES with 24-hour	**NAC 444.136 Barriers; exclusion of unauthorized persons.** 6. Any gate or door that opens into the pool 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 above the ground. (b) Must self-close and positively self-latch from any open position. (c) Must not be blocked open or otherwise disabled to prevent closing and latching. (d) Must, in the case of an indoor pool, be made of metal and installed in a metal frame. □ The operator of the pool shall periodically inspect each such gate or door to ensure that it is operating properly. 7. Facilities, such as large resort hotels, which have continuous, 24-hour-a-day security of the pool area may be exempt from the requirements of this section. 8. Where existing construction prohibits compliance with the requirements of this section, the owner shall file with the health authority an	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS

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security by one or more persons with a physical presence of all AQUATIC VENUES within an ENCLOSURE may apply for a WAIVER to this section.	operation procedure which will serve to ensure the exclusion of unattended small children from the pool.	
2-604.4 INDOOR AQUATIC VENUES **(A)** Building walls enclosing an INDOOR AQUATIC FACILITY may be designated as the AQUATIC FACILITY ENCLOSURE. **(B)** INDOOR AQUATIC VENUES shall be securable from unauthorized entry from other building areas or the exterior. **(C)** Where separate indoor and outdoor AQUATIC VENUES are located on the same site, an AQUATIC VENUE ENCLOSURE shall be provided between them. **Exception:** Where all AQUATIC VENUES are operated continuously 12 months a year on the same schedule. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-604.5 Except as otherwise required in these Regulations, one ENCLOSURE may surround multiple AQUATIC VENUES at one facility. **(A)** WADING POOLS and CHILD AMUSEMENT LAGOONS shall not require separation from other WADING POOLS and CHILD AMUSEMENT LAGOONS by a BARRIER. Refer to Section 2-1008 for additional guidance about WADING POOLS. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-605 Aquatic Venue Cleaning Systems		
2-605.1 The cleaning system provided shall not create an entanglement or suction entrapment hazard or interfere with the operation or use of the AQUATIC VENUE.	**NAC 444.174 Vacuum cleaners.** 1. A vacuum cleaning system is required at each public bathing or swimming facility having a pool. It must be either a portable type or an integral part of the recirculation system. 2. There must be sufficient suction and capacity to remove all normal accumulations from the floor of the pool. 3. If the vacuum cleaner is an integral part of the recirculation system, sufficient connections must be located in the walls of the pool, at least 8 inches (20 centimeters) below the water level. The vacuum cleaner may be connected to the skimmers. 4. Water vacuumed from outdoor pools and from pools with considerable sediment must be discharged to waste. 5. Any visible dirt on the bottom or sides of the pool, and any visible scum or floating matter on the surface of the pool must be removed before the pool is used.	REWORDED TO MIRROR MAHC
2-605.2 If there are multiple AQUATIC VENUES at one AQUATIC FACILITY, the AQUATIC FACILITY may use common cleaning equipment. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-605.3 Use of integral vacuum systems, meaning a vacuum system that uses the main circulating pump or a dedicated vacuum pump connect to the POOL with PVC piping and terminating at the POOL with a flush-mounted vacuum port fitting, shall be prohibited. [NEW]	See **NAC 444.174 Vacuum cleaners.**	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS

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2-605.4 Where used, portable vacuum cleaning equipment shall be powered by circuits having GFCIs. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-605.5 Any ROBOTIC CLEANERS shall utilize low voltage for all components that are immersed in the POOL water. Any ROBOTIC CLEANER power supply shall be connected to a circuit equipped with a GFCI.[NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-7 Recirculation Equipment Room		
2-701 Equipment Room		
2-701.1 Indoor equipment room floors shall be of concrete or other suitable material having a smooth slip resistant finish and shall have positive drainage, including a sump drain pump if necessary. Walls shall be finished in nonabsorbent material from floor level to four (4) feet in height. (A) Floors shall have a slope toward the floor drain and/or sump drain pump adequate to prevent standing water at all times. (B) Wall-floor junctures shall include curb construction of minimum height of four (4) inches. (C) The opening to the EQUIPMENT ROOM or area shall be designed to provide access for all anticipated equipment. (D) At least one hose bib with an appropriate BACKFLOW preventer shall be located in the EQUIPMENT ROOM or shall be accessible within an adequate distance of the EQUIPMENT ROOM so that a hose can service the entire EQUIPMENT ROOM.	**NAC 444.188 Equipment rooms.** 1. Pumps, chlorinators and other electrical equipment must be installed in a protective enclosure. 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 (0.9 x 1.8 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 store chemicals and auxiliary equipment.	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS
2-701.2 The size of the EQUIPMENT ROOM or area shall provide working space to perform routine operations and equipment service. (A) EQUIPMENT ROOMS also intended for storage shall have adequate space provided for such storage, without reducing the working spaces. (B) EQUIPMENT ROOMS or areas shall be lighted to provide 30 FOOT CANDLES (323 lux) of illumination at floor level.	See **NAC 444.188 Equipment rooms.**	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS
2-701.3 All electrical wiring shall conform to the current edition of NEC. Equipment, components, and their application and installation must conform to the NRTL listing.	**NAC 444.140 Electrical requirements.** 1. All new electrical wiring in a public bathing or swimming facility must conform with the 1987 edition of the *National Electric Code* of the National Fire Protection Association and applicable state and local building codes. A copy of the *Code* may be obtained from the International Conference of Building Officials, 5360 South Workman Mill Road, Whittier, California 90601, at a cost of $20.50. All equipment, fixtures and wiring must bear an appropriate label issued by Underwriters	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS

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	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 pool deck and immediate environment must not be within the reach of bathers. 3. Ground fault circuit interrupters must be provided on all new facilities in accordance with the 1987 edition of the *National Electric Code* for all lighting circuits as well as for motors and other electrical circuits in the area of any pool. These devices are required on an existing facility if the health authority determines it is necessary to protect the safety of bathers.	
2-701.4 EQUIPMENT ROOM ventilation shall address: **(A)** Combustion requirements; **(B)** Heat dissipation from equipment; **(C)** Humidity from surge or balance tanks; **(D)** Ventilation to the outside; and **(E)** Air quality. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-701.5 All piping in the EQUIPMENT ROOM shall be permanently identified by its use and the AQUATIC VENUE and AQUATIC FEATURE it serves. **(A)** Identification shall be provided for: **(1)** Main drains and SKIMMERS; **(2)** Filtered water; **(3)** Make-up water; **(4)** Backwash water; **(5)** Disinfectant feeds; **(6)** Acid (or pH) feeds; **(7)** Compressed air lines; **(8)** Gutters; **(9)** Chemical sample piping; and **(10)** AQUATIC VENUE heating lines. **(B)** All piping shall be marked with directional arrows as necessary to determine flow direction. **(1)** A water-resistant, easily read, wall-mounted piping diagram shall be furnished and installed inside the EQUIPMENT ROOM.	**NAC 444.260 Instructions on operation and maintenance of facilities and equipment.** Upon the completion of any public bathing or swimming facility, the owner and his or her operators must be given complete written and oral 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. All valves must be permanently tagged and a valve operating schedule must be provided for every operation.	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS
2-701.6 Separation from CHEMICAL STORAGE SPACES **(A)** Combustion equipment, air-handling equipment, and electrical equipment shall not be exposed to air contaminated with corrosive chemical vapors. **(B)** Doors between an EQUIPMENT ROOM and an INDOOR AQUATIC FACILITY shall be equipped with an automatic closer. The door, frame, and automatic closer shall be installed and maintained to ensure that the door closes completely, latches, and locks without human assistance. **(1)** The locks shall require a key or combination to open from the INDOOR AQUATIC FACILITY side.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT

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(2)	The locks shall be designed and installed to be opened by one hand from the inside of the room under all circumstances, without the use of a key or tool.		
(C)	Doors shall be equipped with permanent signage warning against unauthorized entry.		
(D)	All sides of the doors shall be equipped with a gasket. The gasket shall be installed to prevent the passage of air, or vapors when the door is closed. [NEW]		
2-701.7	Other EQUIPMENT ROOM Requirements	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
(A)	Where ventilation, air filtration, or space dehumidification, heating, or cooling for an INDOOR AQUATIC FACILITY is by mechanical equipment located in an EQUIPMENT ROOM, adequate access space must be provided to allow for inspection and service.		
(B)	Equipment may be installed in an outdoor ENCLOSURE provided the following conditions are met:		
(1)	Equipment must be securely installed on level concrete pads.		
(2)	Exposed plumbing must be protected from UV.		
(3)	Overhead UV protection must be provided.		
(4)	Unpaved areas within the ENCLOSURE shall be graded to allow for proper drainage with suitable ground cover to prevent the generation of mud in areas between equipment.		
(C)	Equipment installed below grade shall be equipped with stairs and an associated handrail that meets applicable building code standards. [NEW]		
2-702	**Chemical Storage Spaces**		
	Nothing in this section shall be construed as providing relief from applicable requirements of fire codes, mechanical codes, electrical codes, etc. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-702.1	If POOL chemicals, acids, salt, oxidizing cleaning materials, or other corrosive or oxidizing chemicals are stored outdoors, they must be stored in a well-ventilated protective area with an installed ENCLOSURE to prevent unauthorized access as per Section 2-702.2.	**NAC 444.182 Disinfectants: Handling; storage; toxicity.** **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 such instructions, as directed by the health authority.	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS
(A)	At least one space dedicated to chemical storage space shall be provided to allow safe storage of the chemicals present.		
2-702.2	Equipment listed for outdoor use may be located in exterior CHEMICAL STORAGE SPACES as permitted.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
(A)	Exterior CHEMICAL STORAGE SPACES not joined to a wall of a building shall be completely enclosed by fencing that is at least six (6) feet high and meets the ENCLOSURE requirements.		
(B)	Fencing shall be equipped with a self-closing and self-latching gate having a permanent locking device. [NEW]		
2-702.3	Exterior CHEMICAL STORAGE SPACES shall be equipped with overhead UV protection. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-702.4	Combustion Equipment in Interior CHEMICAL STORAGE SPACES	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
(A)	No COMBUSTION DEVICE or appliance shall be installed in a CHEMICAL STORAGE SPACE, or in any other place where it will be exposed to the air from a CHEMICAL STORAGE SPACE.		
(B)	***Exception:*** A COMBUSTION DEVICE or appliance which meets all of the following requirements shall be acceptable:		
(1)	The device or appliance is required for one or more processes integral to the function of the room, such as space heat;		

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(2)	The device is listed for such use; and		
(3)	The device as installed is approved by the HEALTH AUTHORITY. NEW][		
2-702.5	Ozone Rooms	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
(A)	An ozone EQUIPMENT ROOM shall not be used for storage of chemicals, solvents, or any combustible materials, other than those required for the operation of the recirculation and ozone generating equipment.		
(B)	Rooms which are designed to include ozone equipment shall be equipped with an emergency ventilation system capable of six air changes per hour.		
(1)	The exhaust intake shall be located approximately six (6) inches from the floor, on the opposite side of the room from the make-up air intake.		
(2)	The emergency ventilation system shall be so arranged as to run on command of an ozone-leak alarm or on command of a manual switch.		
(3)	The manual emergency ventilation switch shall be located outside the room and near the door to the ozone room.		
(C)	Ozone rooms which are below grade shall be equipped with forced-draft ventilation capable of six (6) air changes per hour.		
(1)	The exhaust intake shall be located approximately six (6) inches from the floor, on the opposite side of the room from the make-up air intake.		
(2)	The ventilation system shall be arranged to:		
(a)	Run automatically concurrent with the ozone equipment and for at least a time allowing for 15 air changes after the ozone equipment is stopped,		
(b)	Run upon activation of the ozone detection and alarm system, and		
(c)	Run on command of a manual switch.		
(3)	The manual ventilation switch shall be located outside the room and near the door to the ozone room.		
(D)	In addition to the signs required on all chemical storage areas, a sign shall be posted on the exterior of the entry door, stating "DANGER - GASEOUS OXIDIZER – OZONE" in lettering not less than four (4) inches high.		
(E)	Rooms containing ozone generation equipment shall be equipped with an audible and visible ozone detection and alarm system.		
(1)	The alarm system shall consist of both an audible alarm capable of producing at least 85 decibels at ten (10) feet distance, and a visible alarm consisting of a flashing light mounted in plain view of the entrance to the ozone-EQUIPMENT ROOM.		
(2)	The ozone sensor shall be located at a height of 18-24 inches above floor level and shall be capable of measuring ozone in the range of 0-2 PPM.		
(3)	The alarm system shall activate when the ozone concentration equals or exceeds 0.1 PPM in the room.		
(4)	Activation of the alarm system shall shut off the ozone generating equipment and turn on the emergency ventilation system.		
(F)	Use of compressed CHLORINE gas shall be prohibited for new construction and after SUBSTANTIAL ALTERATION to existing AQUATIC FACILITIES. [NEW]		
2-8	**Hygiene Facilities**		
2-801	**General**		
2-801.1	All design provisions shall be required for new construction or SUBSTANTIAL ALTERATION to an existing AQUATIC FACILITY. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT

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2-801.2 AQUATIC facilities shall provide HYGIENE FACILITIES that include, at a minimum, toilets, urinals, SHOWERS, hand washing sinks and other HYGIENE FIXTURES, as specified herein.	**NAC 444.210 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. These facilities must be under the general supervision of the owner of the public bathing or swimming facility. 3. 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. 4. For distances greater than that provided in paragraph (a) of subsection 3, the following minimum sanitary facilities must be provided in the bath house: Men: 1 water flush toilet; 1 lavatory; 1 shower Women: 1 water flush toilet; 1 lavatory; 1 shower	**REWORDED TO MIRROR MAHC**
2-801.3 HYGIENE FACILITIES shall be constructed in accordance with relevant law or as modified herein.	**NAC 444.212 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.	REWORDED TO MIRROR MAHC
2-801.4 The minimum numbers of toilets, urinals, hand washing sinks and other HYGIENE FIXTURES provided, excluding SHOWERS, shall be in accordance the building codes.	**NAC 444.214 Minimum sanitary plumbing facilities.** 1. Minimum sanitary plumbing facilities must be provided at each public bathing or swimming facility as follows: (a) For males: One water flush toilet, two water flush urinals and one lavatory is presumed	REWORDED TO PROVIDE CLARITY

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		adequate for the first 100 bathers. One water closet, one urinal and one lavatory must be provided for each additional 100 bathers or major fraction thereof. Not less than two shower heads must be provided which will be assumed to be adequate for the first 80 bathers. One additional shower head must be provided for each additional 40 bathers. (b) For females: Not less than three water flush toilets and one lavatory must be provided which will be assumed to be adequate for the first 100 bathers. Two water closets and one lavatory must be provided for each additional 100 bathers or major fraction thereof. Not less than two shower heads must be provided which is presumed to be adequate for the first 80 bathers. One shower head must be added for each 40 additional bathers. (c) Fixture schedules should be increased for facilities at schools or other similar locations where bather loads may reach peaks due to schedules of use. 2. These minimum criteria for bathhouse plumbing facilities are based upon the anticipated maximum attendance in bathers. 3. The requirements of this section do not apply to any swimming pool 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.	
2-802	**Location**		
	Except as required in Section 2-802.1 and 2-802.2, a drinking fountain, toilet, and hand washing sink shall be located no greater than 300 feet walking distance from each AQUATIC VENUE, along a path designated for pedestrian traffic. **Exemption:** Unless otherwise specified, AQUATIC VENUES located within 300 feet walking distance of all lodging or residential settings are exempt from this Section.	**NAC 444.210 Required facilities.** **3.** 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.	REWORDED TO MIRROR MAHC
2-802.1	An AQUATIC VENUE designed primarily for use by children less than five (5) years of age shall have a drinking fountain, toilet, and HAND WASH STATION located no greater than 200 feet walking distance and in clear view from the nearest entry/exit of the AQUATIC VENUE.	**NAC 444.204 General requirements for wading pools; location of spray pools.** 1. Adequate sanitary toilet facilities, as determined by the health authority, must be available in the vicinity of the pool. 2. A sanitary drinking fountain must be provided at one side or end of the area with a raised step to enable children of all sizes to drink without assistance.	REWORDED TO MIRROR MAHC; NEW REQUIREMENT

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2-802.2 SPAS shall have a drinking fountain located no greater than 100 feet walking distance from the SPA.	**NAC 444.460 Drinking fountains.** 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.	REWORDED TO MIRROR MAHC
2-803 Design and Construction		
2-803.1 The floors of HYGIENE FACILITIES and dressing areas serving AQUATIC FACILITIES shall have a smooth, easy-to-clean, impervious-to-water, slip-resistant surface. All surfaces required to be slip-resistant shall have a minimum dynamic coefficient of friction at least equal to the requirements of ANSI A137.1-2012 for that installation as measured by the DCOF AcuTest.	**NAC 444.218 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.	REWORDED TO MIRROR MAHC
2-803.2 A hard, smooth, impervious-to-water, easy-to-clean base shall provide a sealed, coved juncture between the wall and floor and extend upward on the wall at least six (6) inches.	**See above**	REWORDED TO MIRROR MAHC
2-803.3 Floor drains shall be installed in HYGIENE FACILITIES and dressing areas where PLUMBING FIXTURES are located. (A) Floor drain opening grill covers shall be ½-inch or less in width or diameter. (B) Floors shall be sloped to drain water or other liquids.	**NAC 444.218 Floors.** **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), toward drains.	REWORDED TO MIRROR MAHC
2-803.4 Partitions and ENCLOSURES adjacent to HYGIENE FACILITIES shall have a smooth, easy-to-clean, impervious surface.	**NAC 444.222 Furnishings.** 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.	REWORDED TO MIRROR MAHC
2-803.5 At least one hose bibb or other potable water source capable of connecting a hose shall be located in each HYGIENE FACILITY to facilitate cleaning.	**NAC 444.216 Plumbing requirements.** **4.** Hose bibs must be provided for flushing down the dressing rooms and the interior of the bathhouse.	REWORDED TO MIRROR MAHC
2-804 Plumbing Fixture Requirements		
2-804.1 PLUMBING FIXTURES shall be installed and operated in a manner to adequately protect the potable water supply from BACKFLOW in accordance with applicable law. (A) PLUMBING FIXTURES shall be designed so that they may be readily and frequently cleaned, SANITIZED, and disinfected. (B) Drinking fountains must be installed outside of HYGIENE FACILITIES.	**NAC 444.216 Plumbing requirements.** 1. At least one drinking fountain must be made available to bathers at a public bathing or swimming facility. A raised step must be provided to enable children of all sizes to drink from the fountain without assistance.	REWORDED TO MIRROR MAHC
2-804.2 CLEANSING SHOWERS (A) The minimum number of CLEANSING SHOWERS shall be one per gender for AQUATIC FACILITIES less than 4,000 square feet in collective AQUATIC VENUE surface area. An additional CLEANSING SHOWER per gender shall be added for each additional 4,000 square feet of AQUATIC VENUE space or portion thereof. (B) CLEANSING SHOWERS shall be evenly distributed between genders.	**NAC 444.216 Plumbing requirements.** **3.** Heated water must be provided at all shower heads. The water heater and thermostatic mixing valve must be inaccessible to bathers and must be capable of providing 3 gallons (11.4 liters) per minute per shower head of not less than 90F	REWORDED TO MIRROR MAHC

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(C) CLEANSING SHOWERS shall be located in a HYGIENE FACILITY near the entrance and within clear view of the AQUATIC VENUE. (D) Entryways to private or group CLEANSING SHOWER areas shall be enclosed by a door or curtain. (1) SHOWER doors shall be of a smooth, hard, easy-to-clean material. (2) SHOWER curtains shall be of a smooth, easy-to-clean material. (E) CLEANSING SHOWERS shall be supplied with soap and a soap dispenser adjacent to the SHOWER.	(32C) water. The showers must be so designed that a proper mixture of hot and cold water may be obtained without danger of scalding the bather.	
2-804.3 RINSE SHOWERS (A) A minimum of one RINSE SHOWER shall be provided on the DECK near an entry point to the AQUATIC VENUE. (B) Floors of RINSE SHOWERS shall be sloped to drain wastewater away from the AQUATIC VENUE and meet local applicable codes. (C) RINSE SHOWER drains shall discharge to the sanitary sewer. (D) RINSE SHOWERS in AQUATIC FACILITIES greater than 7,500 square feet of water surface area shall be situated adjacent to each AQUATIC VENUE entry point or arranged to encourage BATHERS to use the RINSE SHOWER prior to entering the AQUATIC VENUE. (E) A minimum of four (4) showerheads per 50 feet of beach entry AQUATIC VENUES shall be provided as a RINSE SHOWER located not more than 30 feet from the AQUATIC VENUE or queuing area. (F) A minimum of one RINSE SHOWER shall be provided at each entrance to a LAZY RIVER AQUATIC VENUE. (G) A minimum of one RINSE SHOWER shall be provided at each entrance to a WATERSLIDE queue line. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-804.4 AQUATIC FACILITIES with 7,500 square feet of water area or more may be flexible in the number of CLEANSING SHOWERS they provide based on the THEORETICAL PEAK OCCUPANCY: (A) 25 percent of the required SHOWERS shall be CLEANSING SHOWERS, (B) 25 percent of the required SHOWERS shall be RINSE SHOWERS, and (C) The remaining 50 percent may be either cleansing or RINSE SHOWERS. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-804.5 Non-PLUMBING FIXTURE Requirements (A) All HYGIENE FIXTURES and appurtenances in the dressing area shall have a smooth, hard, easy-to-clean, impervious-to-water surface and be installed to permit thorough cleaning. (B) Glass, excluding mirrors and lighting fixtures, shall not be permitted in HYGIENE FACILITIES. (C) Mirrors and light fixtures shall be shatter resistant. (D) If lockers are provided, they shall be installed at least 3.5 inches above the finished floor or on legs or a base at least 3.5 inches high and far enough apart to allow for cleaning and drying underneath the locker. (E) Soap dispensers shall be securely attached adjacent to hand washing sinks and at each CLEANSING SHOWER. The dispensers shall be of all metal, plastic, or other shatterproof materials that can be readily and frequently cleaned. (F) Hand dryers or paper towel dispensers shall be provided and securely attached adjacent to hand washing sinks. Hand dryers and paper towel dispensers shall be of all metal, plastic or other shatterproof materials that can be readily and frequently cleaned. (G) Toilet paper dispensers shall be securely attached to wall or partition adjacent to each toilet. (H) In female HYGIENE FACILITIES, covered receptacles adjacent to each toilet shall be	**NAC 444.222 Furnishings.** 1. All furniture must be of simple character and easily cleanable. Locker compartments, furniture, partitions and other appurtenances in dressing rooms must be so installed so as 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. 3. Dispensers for providing soap must be provided at each lavatory and shower head. The dispensers must be all metal or plastic type. The	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS

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(I)	provided for disposal of used feminine hygiene products. A minimum of one hands-free trash receptacle shall be provided in areas adjacent to hand washing sinks.	use of glass in these is not permitted. Paper towels must be provided for users of the lavatories. 4. 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. 5. All light fixtures must be adequately shielded to prevent injury to bathers.	
2-805	**Provision of Suits, Towels, and Shared Equipment** AQUATIC FACILITIES supplying reusable suits, towels, and/or shared equipment shall provide adequate equipment and space for cleaning, sanitizing, drying, and storing of these materials.	**NAC 444.284 Swimming suits and towels.** 1. Swimming suits and towels furnished by the management, unless sent to a public laundry, must be washed with hot water and soap or detergent, rinsed and thoroughly dried and sterilized by heat each time they are used, or an equivalent, approved process must be used.	**REWORDED TO MIRROR MAHC**
2-806	**Foot Baths are Prohibited** **Foot Baths** are standing water in which BATHERS or aquatics staff rinse their feet. Foot baths are prohibited. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-9	**Water Supply and Wastewater Disposal**		
2-901	**Water Supply**		
2-901.1 (A) (B)	Water serving an AQUATIC FACILITY shall be supplied from a potable water source. Other water sources such as lakes or springs may be APPROVED to serve an AQUATIC FACILITY by the HEALTH AUTHORITY. Use of condensate water, collected rain water, or other reclaimed water for water serving an AQUATIC VENUE is prohibited.	**NAC 444.216 Plumbing requirements.** 2. All water provided for drinking fountains, lavatories and showers must be potable and meet the requirements and conform with the standards of the Health Division for drinking water. **NAC 444.148 Quality of water.** 1. Water entering a public bathing or swimming facility for the first time must meet the bacteriological standards for potable water 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 pools that depend upon the flow of a stream, lake, well or other source which has been diverted to flow in and out of the pool, at a rate of not less than 1,000 gallons (378.5 liters) per hour for each 20 bathers using the pool during each hour.	**REWORDED TO MIRROR MAHC**
2-901.2	The water supply shall have sufficient capacity to simultaneously serve all PLUMBING FIXTURES. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMEMNT**
2-901.3	The water supply shall have sufficient capacity and pressure to refill the AQUATIC VENUE to the operating water level after backwashing filters and after any splashing or	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT

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evaporative losses within one hour if the AQUATIC VENUE is operational at the time of the backwash. [NEW]		
2-901.4 Facilities not having dependable DISINFECTION and filtration systems or failing to maintain such systems in accordance with these Regulations shall provide weekly bacteriological testing results from a State certified laboratory of water samples taken from each AQUATIC VENUE. 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 a positive test (confirmed test) for total 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.	**NAC 444.150 Sampling of water.** 1. Samples of water from each public bathing or swimming facility must be submitted to the laboratory of the Health Division once a week for bacteriological testing. This requirement may be waived for facilities maintaining approved operating records and having dependable disinfection and filtration. 2. Not more than 15 percent of the samples must either: (a) Contain more than 200 bacteria per milliliter, as determined by the standard (35C) 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).	REWORDED TO PROVIDE CLARITY
2-902 Fill Spout		
2-902.1 A fill spouts used at an AQUATIC VENUE shall be located so it is not a safety hazard to BATHERS.	**NAC 444.474 Supply of water.** 3. The fillspout, if used, must be properly shielded so as not to create a hazard.	**REWORDED TO MIRROR MAHC**
2-902.2 The open end of fill spouts shall not have sharp edges or protrude more than two (2) inches beyond the edge of the POOL. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-902.3 The open end shall be separated from the water by an air gap of at least 1.5 pipe diameters measured from the pipe outlet to the POOL.	**NAC 444.146 Connections for supply and disposal of water.** 2. Water used to fill any pool must be supplied by an overfall fillspout providing an airgap of not less than 6 inches (15 centimeters) between the flood level at the pool and the lowest point of the fillspout, 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. **NAC 444.474 Supply of water.** 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.	**REWORDED TO MIRROR MAHC**

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2-903 Cross-Connection Control		
2-903.1 The potable water supply serving an AQUATIC VENUE shall be protected against BACKFLOW consisting of either of the following: **(A)** An acceptable air gap consisting of a vertical distance of not less than two pipe diameters of the water supply pipe or six (6) inches, whichever is greater, over the lowest free-flowing discharge point of the receiving pipe, tank, or vessel. Splash guards that are open to the atmosphere may be used around the air gap; or **(B)** An APPROVED RPZ or a pressurized vacuum breaker (PVB) BACKFLOW preventer installed according to the plumbing code and the HEALTH AUTHORITY. All BACKFLOW prevention devices installed must be tested on an annual basis.	**NAC 444.146 Connections for supply and disposal of water.** 1. No direct mechanical 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 backflow in a manner approved by the health authority. All pools must be equipped with acceptable provisions, such as overfall fillspouts, surge tanks or receptors, for adding makeup water. 2. Water used to fill any pool must be supplied by an overfall fillspout providing an airgap of not less than 6 inches (15 centimeters) between the flood level at the pool and the lowest point of the fillspout, 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.	**REWORDED TO MIRROR MAHC**
2-904 Sanitary Wastes Wastewater from all PLUMBING FIXTURES in the entire AQUATIC FACILITY shall be discharged to a sanitary sewer system.	**NAC 444.146 Connections for supply and disposal of water.** **3.** Sanitary sewage from the bathhouse must be discharged into a sewage system approved by the health authority.	**REWORDED TO MIRROR MAHC**
2-905 Pool Wastewater		
2-905.1 Wastewater from an AQUATIC VENUE, including filter backwash water, shall be discharged indirectly, via a sump pit through an air-gap to a sanitary sewer system having sufficient capacity to collect and treat wastewater. **(A)** Wastewater shall not be directed to storm water systems or surface waters. **(B)** A water recovery and reuse system may be submitted to the HEALTH AUTHORITY for review and approval.	**NAC 444.176 Disposal of waste.** 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. 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 backflow introducing contaminated water into the pool 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.	**REWORDED TO MIRROR MAHC**
2-905.2 The wastewater disposal system shall have sufficient capacity to receive wastewater without flooding when filters are cleaned or when the AQUATIC VENUE is drained. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-905.3 A separate line equipped with a valve shall be installed to bypass the filter and discharge to waste indirectly for the purpose of draining the AQUATIC VENUE. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**

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2-905.4 The sump pit must be located where it does not impede access to equipment or present a hazard. Access to the sump pit must not be obstructed. Any cover placed over the sump pit shall allow for regular inspection and maintenance, and shall not impede flow of wastewater into the pit. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-10 Special Use Aquatic Venues		
2-1001 General Requirements		
2-1001.1 SPECIAL USE AQUATIC VENUE'S shall comply with the requirements stated in these regulations as applicable in addition to the additional provisions or reliefs of this section. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-1001.2 The DESIGN PROFESSIONAL, or licensed contractor, shall provide information to adequately support why the SPECIAL USE AQUATIC VENUE does not meet the definition and use characteristics of other categories of AQUATIC VENUES or POOLS listed in these Regulations.	**NAC 444.1948 Deviation from requirements.** A water recreation attraction may deviate from the requirements of NAC 444.010 to 444.306, inclusive, if and to the extent: 1. An exemption from those requirements is necessary to accommodate the special use of the attraction; and 2. The design and construction of the attraction are within the limits of sound engineering practice and present no health or safety hazard.	**REWORDED TO MIRROR MAHC**
2-1001.3 A WAIVER must be submitted when the design specifications do not meet the standards outlined in Section 2. When submitting a WAIVER, the DESIGN PROFESSIONAL, or licensed contractor, shall provide justification for design parameters that do not meet the design standards and construction requirements listed in these Regulations. See Section 5-3 for WAIVER requirements.	**NAC 444.206 Special purpose pools.** 1. Special purpose pools may deviate from the requirements of NAC 444.010 to 444.306, inclusive, if: (a) Their design and construction are within the limits of sound engineering practice and present no health or safety hazard; and (b) The deviation is required because of the special use of the pools. 2. The operating permit issued for a special purpose pool must denote that it is for such a pool and must state the purpose for which the pool is to be used. 3. The health authority shall require such measures as he or she deems necessary to ensure the health and safety of bathers using a special purpose pool.	**REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS**
2-1002 Spas		
2-1002.1 The maximum water depth in SPAS shall be four (4) feet measured from the designed static water line unless designed for special use and purposes APPROVED by the HEALTH AUTHORITY. **(A)** The water depth for exercise SPAS shall not exceed six (6) feet six inches measured from the designed static water line. **(B)** The maximum submerged depth of any seat or sitting bench shall be 28 inches	**NAC 444.432 Depth.** 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.	**REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS**

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measured from the water line.	2. The maximum depth for any seat or sitting bench in a public spa is 2 feet (61 cm) measured from the waterline.	
2-1002.2 A SPA shall have one or more suitable, slip-resistant handhold(s) around the perimeter and not over 12 inches above the water line. The handhold(s) may consist of bull-nosed coping, ledges or DECKS along the immediate top edge of the SPA; ladders, steps, or seat ledges; or railings.	**NAC 444.450 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 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.	**REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS**
2-1002.3 Where SPA depths are greater than 24 inches, interior steps or stairs shall be provided in accordance with Section 2-304.. **(A)** Each set of steps shall be provided with at least one handrail to serve all treads and risers. **(1)** A point of egress equipped with a handrail must be provided for every 50 feet of perimeter or major portion thereof. **(B)** Seats or benches may be provided as part of these steps. **(C)** Approach steps on the exterior of a SPA wall extending above the DECK shall also be required unless the raised SPA wall is 19 inches or less in height above the DECK and it is used as a transfer tier or pivot-seated entry.	**NAC 444.442 Steps, ladders, treads and handrails required.** 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. **NAC 444.444 Spa steps and recessed steps.** Where required, spa steps and recessed steps must meet the following specifications: 1. Step treads must have a minimum	**REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS**

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	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.	
2-1002.4 A four (4) foot wide, continuous, unobstructed PERIMETER DECK shall be provided on two consecutive or adjacent sides or fifty percent or more of the SPA perimeter. **(A)** Elevated SPAS may be located adjacent to another AQUATIC VENUE as long as there is an effective BARRIER between the SPA and the adjacent AQUATIC VENUE. **(B)** If an effective BARRIER is not provided, a minimum distance of four (4) feet between the AQUATIC VENUE and SPA is required.	**NAC 444.454 Decks: Dimensional design.** 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.	**REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS**
2-1002.5 Water temperatures shall not exceed 104°F.	**NAC 444.524 Heater and temperature requirements.** 1. Water temperature in a therapy pool must be maintained above 70F (21.11C), and must not be artificially heated above 104F (40.0C).	**REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS**
2-1002.6 A means to drain the SPA shall be provided to allow frequent draining and cleaning.	**NAC 444.480 Drains.** 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	**REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS**

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	removed except with tools.	
2-1002.7 All plumbing associated with the jet system must be independent from the plumbing for the filtration system.	**NAC 444.486 Pumps.** 7. Hydrotherapy pumps and piping systems must be independent and must not be interconnected with the filtration plumbing system.	**REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS**
2-1002.8 Suction outlets associated with the jet system must be of an UNBLOCKABLE DRAIN COVER design or have a minimum of two outlets separated by not less than four (4) feet that meet the following requirements: (A) The outlets may be located on separate planes, (B) The oulets shall be connected to a single branch line piped to provide haudraulic balance between the outlets, and (C) The branch lines shall not be valved so as to be capable of operating independently.	**NAC 444.480 Drains.** 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.	**REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS**
2-1002.9 An air induction system, when provided, shall prevent water back up that could cause electrical shock hazards. Air intake sources shall not permit the introduction of toxic gases or other contaminants.	**NAC 444.500 Air induction systems.** An air induction system must totally prevent water backup which could cause electrical shock hazards.	**REWORDED TO MIRROR MAHC**
2-1002.10 The agitation system shall be connected to a minute timer that does not exceed 15 minutes that shall be located out of reach of a BATHER in the SPA. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-1002.11 All SPAS shall have a clearly labeled emergency shutoff or control switch for the purpose of stopping the motor(s) that provide power to the RECIRCULATION SYSTEM and hydrotherapy or agitation system that shall be installed and be readily accessible to the BATHERS, in accordance with the NEC. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-1003 Waterslides and Landing Pools		
2-1003.1 The following recognized design and construction standards for WATERSLIDES shall be adhered to: (A) The design engineer shall address compliance with these standards and must provide documentation and/or certification that the WATERSLIDE design is in conformance with these standards: (1) ASTM F2376-13 Standard Practice for Classification, Design, Manufacture, Construction, and Operation of Water Slide Systems; and (2) ASTM F2469-09 Standard Practice for Manufacturer, Construction, Operation, and Maintenance of AQUATIC Play Equipment. (B) Signs indicating riding instructions, warnings, and requirements in accordance with the manufacturer recommendations shall be posted at the WATERSLIDE entry.	**NAC 444.194 Consultation regarding design of attraction.** The design engineer shall consult with the health authority before preparing and submitting any engineering plans or specifications for a water recreation attraction. The consultation must include a discussion of: 1. Any potential failure to comply with the provisions of NAC 444.010 to 444.306, inclusive; and 2. Changes in the design of the attraction that may be necessary as a result of the noncompliance. (Added to NAC by Bd. of Health, eff. 11-1-88) **NAC 444.1942 Posting signs indicating maximum depth.** The operator of a water	**REWORDED TO MIRROR MAHC**

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	recreation attraction shall post one or more warning signs at the entrance to the attraction stating the maximum depth of water in the attraction. **NAC 444.195 Water slides: Design and construction.** 1. A water slide must consist of one or more flumes, splash pools or slide runouts, a pump reservoir, and facilities for the filtration, disinfection and chemical treatment of water. 2. The structural design of a water slide and the materials used in its construction must conform with generally accepted structural engineering practices and must provide a sound, durable structure that will safely sustain all the dead loads, live loads, liquid hydrostatic and earth pressures encountered. 3. Any components or accessories of a water slide that come into contact with bathers must be assembled, arranged and finished so that their external surfaces and edges do not present an injury hazard to the skin of bathers under casual contact. 4. The owner of a water slide and the registered engineer who designs the slide are responsible for the safe design and construction of the entire facility.	
2-1003.2 FLUMES **(A)** FLUME surfaces shall be inert, nontoxic, smooth, and easily cleaned. **(B)** All FLUME valleys and dips shall have proper drainage, safety measures that insure a rider cannot fall from the FLUME, and a means of egress in the event the ride malfunctions or a rider stops on the ride.	**NAC 444.1952 Water slides: Flumes.** 1. Each flume of a water slide must be watertight. Its surfaces must be inert, nontoxic, smooth and easily cleaned. 2. If a tube-type flume is used, it must be designed or ventilated to prevent a hazardous concentration of toxic disinfectant fumes under all circumstances of operation. 3. All curves and turns in a flume must be: (a) Designed so that the impact of bathers with the walls of the flume does not present a hazard; and (b) Banked so that the forces on bathers keep them safely inside the flume under all foreseeable circumstances of operation. Bathers must not become airborne. 4. In curved sections of a flume, the design of the wall of the flume must cause the outward thrust of the body of the bather to be dissipated towards the centerline of the flume.	**REWORDED TO MIRROR MAHC**

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	5. All slopes in a flume must be designed so that the speed of bathers does not reach a point at which a safe equilibrium of dynamic forces cannot be maintained on any curve or turn in the flume. 6. In sections of a flume where bathers can stop, provision must be made by design or modification to prevent bathers from falling out of the flume. 7. The construction, dimensions and methods of mechanical attachment of the components of a flume must provide a smooth and continuous surface through the entire length of the flume. Any misalignment of joints in a sectional flume must not exceed 1/8 inch (3.17 millimeters). 8. The walls of any flume must be designed so that the continuous and combined action of hydrostatic, dynamic and static loads, as well as normal environmental deterioration, do not damage the flume bed to the extent of creating a structural failure that presents a hazard of injury to bathers or requires frequent patch repairs that may weaken the structural strength of the flume.	
2-1003.3 FLUME Exits **(A)** The exit of any FLUME must be designed to ensure that BATHERS enter the LANDING POOL or SLIDE RUNOUT at a safe speed and angle of entry. **(B)** If a WATERSLIDE has two or more FLUMES and there is a point of intersection between the centerlines of any two FLUMES, the distance between that point and the point of exit for each intersecting FLUME must not be less than the SLIDE manufacturer's recommendations and ASTM F2376.	**NAC 444.1954 Water slides: Exit from flume.** 1. The exit of any flume must be designed to ensure that bathers enter the splash pool or slide runout at a safe speed and angle of entry. 2. If a slide has two or more flumes and there is a point of intersection between the centerlines of any two flumes, the distance between that point and the point of exit for each intersecting flume must not be less than 20 feet (6.08 meters), or 30 feet (9.12 meters) if any bather exits a flume at high speed.	**REWORDED TO MIRROR MAHC**
2-1003.4 Exit into LANDING POOLS **(A)** WATERSLIDES shall be designed to terminate at or below water level, except for DROP SLIDES or unless otherwise permitted by the WATERSLIDE manufacturer and ASTM F2376. **(B)** WATERSLIDES shall be perpendicular to the wall of the AQUATIC VENUE at the point of exit unless otherwise permitted by the WATERSLIDE manufacturer. **(C)** WATERSLIDES shall be designed with an exit system which shall be in accordance with the WATERSLIDE manufacturer's recommendations and ASTM F2376 and provides for safe entry into the LANDING POOL or WATERSLIDE RUNOUT. **(D)** The FLUME exits shall be in accordance with the WATERSLIDE manufacturer's recommendations and ASTM F2376. **(E)** The distance between the point of exit and the side of the AQUATIC VENUE opposite the BATHERS as they exit, excluding any steps, shall not be less than the WATERSLIDE manufacturer's recommendations and in accordance with ASTM F2376.	**NAC 444.1956 Water slides: Exit into splash pool.** If bathers exit the flume of a water slide into a splash pool: 1. The flume must be: (a) Horizontal; and (b) Perpendicular to the wall of the pool at the point of exit, □□for a distance of not less than 10 feet (3.04 meters) from that point. 2. The flume exit must be flush with the vertical wall of the pool at the point of exit and not more than 2 inches (5.08 centimeters) above, nor less than 6 inches (15.24 centimeters) below, the normal operating level of the pool.	**REWORDED TO MIRROR MAHC**

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	3. The distance between: (a) The side wall of the pool and that portion of the flume exit nearest the wall must be not less than 5 feet (1.52 meters) at the point of exit. (b) The centerline of the flume and the centerline of any adjacent flume must be not less than 6 feet (1.82 meters) at the point of exit. (c) The point of exit and the side of the pool opposite bathers as they exit, excluding any steps, must be not less than: (1) Twenty feet (6.08 meters), if the flume ends above or below the normal operating level; and (2) Thirty feet (9.12 meters) if the flume ends at the normal operating level. 4. The slide may not be used if the main drain of the pool is not clearly visible from the deck with the flume water turned off.	
2-1003.5 LANDING POOLS **(A)** If steps are provided instead of exit ladders or RECESSED STEPS with grab rails, they shall be installed at the opposite end of the LANDING POOL from the FLUME exit and a handrail shall be provided in accordance with Sections 2-304 to 2-308. **(B)** If the WATERSLIDE FLUME ends in a swimming POOL, the landing area shall be divided from the rest of the AQUATIC VENUE by a float line, WING WALL, PENINSULA or other similar feature to prevent collisions with other BATHERS.	**NAC 444.1958 Water slides: Splash pools.** 1. If a splash pool is used at a water slide, it must be located at the base of the slide. 2. Except as otherwise provided in this subsection, the depth in a splash pool at the end of the flume must be maintained at 3 1/2 feet (1.05 meters) from the normal operating level to the floor. This depth must be maintained for a distance of not less than 20 feet (6.08 meters) from the point of exit from the flume, or not less than 30 feet (9.12 meters) from that point if the point of exit is even with the normal operating level. The health authority may waive these requirements if a special exit system is used that ensures a safe exit from the flume and safe entry to the splash pool. 3. Beyond the area of level floor required by subsection 2, in the area of the pool opposite the point of exit from the flume, the floor of the splash pool may have a constant slope upward of not more than 1 in 7. 4. If steps are provided instead of exit ladders or stepholes with handrails, a handrail must be provided at the steps opposite the point of exit from each flume. The surface edge of the splash pool steps must be outlined in a contrasting color.	**REWORDED TO MIRROR MAHC**
2-1003.6 A PERIMETER DECK shall be provided along the exit side of the LANDING POOL.	**NAC 444.196 Water slides: Decks.** 1. A deck must be provided along the exit side of the splash pool and along one or more of the other sides of the pool. The pump and reservoir	**REWORDED TO MIRROR MAHC**

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		area must be accessible by a deck not less than 3 feet (0.91 meters) wide. 2. All decks must be sloped at not less than 1/4 inch per foot to drains or approved surface water disposal areas. 3. If deck drains are provided, they must have an inlet opening of not less than 4 inches (10.16 centimeters) in diameter.	
2-1003.7	A walkway, steps, stairway or ramp shall be provided between the LANDING POOL and the top of the FLUME.	**NAC 444.1962 Water slides: Means of access.** 1. A concrete walkway, steps, stairway or ramp must be provided between the splash pool and the top of the flume. 2. The walkway or other means of access must not retain standing water and must: (a) Conform to the structural requirements of the local building code. (b) Be not less than 4 feet (1.21 meters) wide. (c) Be provided with handrails. (d) Have a slip-resistant finish. (e) Be separated from the flume by a physical barrier that is located far enough from the flume to prevent it from being contacted by bathers on the flume.	**REWORDED TO MIRROR MAHC**
2-1003.8	WATERSLIDE RUNOUTS, if used, shall have a planned means of egress, unless one of the walls of the RUNOUT is not more than 19 inches in height. WATERSLIDE RUNOUTS shall be designed in accordance with the SLIDE manufacturer's recommendations and ASTM F2376.	**NAC 444.1964 Water slides: Runouts.** 1. Slide runouts, if used, must have an exit opening or step unless one or both walls of the runout are not more than 12 inches (30.48 centimeters) in height. 2. Runouts must be designed with adequate length and water depth and sloped so as to bring the bather to a safe stop.	**REWORDED TO MIRROR MAHC**
2-1003.9 **(A)** **(B)** **(C)** **(D)** **(E)**	DROP SLIDES There shall be a SLIDE landing area in accordance with the SLIDE manufacturer's recommendations and ASTM F2376. This area shall not infringe on the landing area for any other SLIDES, diving equipment, or any other minimum AQUATIC VENUE clearance requirements. Steps shall not infringe on this area. The minimum required water depth shall be a function of the vertical distance between the terminus of the SLIDE surface and the water surface of the LANDING POOL. The minimum required water depth shall be in accordance with the SLIDE manufacturer's recommendations and ASTM F2376. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-1003.10 **(A)** **(B)**	POOL SLIDES All SLIDES installed as an appurtenance to an AQUATIC VENUE shall be designed, constructed, and installed to provide a safe environment for all BATHERS utilizing the AQUATIC VENUE in accordance with applicable ASTM and CPSC standards. Components used to construct a POOL SLIDE shall be non-toxic and compatible with the environment contacted under normal use.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT

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(C) Water depth at the SLIDE terminus shall be determined by the SLIDE manufacturer. (D) Clear space shall be maintained to the POOL edge and other features per manufacturer requirements. (1) The landing area of the SLIDE shall be protected through the use of a float line, WING WALL, PENINSULA or other similar impediment to prevent collisions with other BATHERS. (2) Netting or other BARRIERS shall be provided to prevent BATHER access underneath POOL SLIDES where sufficient clearance is not provided. (3) Such netting or other BARRIER shall be designed such that any underwater opening does not allow for the passage of a four (4) inch ball and no opening can create a finger entrapment. [NEW]		
	NAC 444.1966 Water slides: Pump reservoirs. 1. Pump reservoirs used in water slides must have sufficient volume to contain not less than 2 minutes of combined flow from all water treatment and flume pumps or must contain enough water to ensure that the splash pool will maintain a constant water depth. 2. The interior of pump reservoirs must be watertight with a hard trowel or equivalent impervious, slip-resistant finish. 3. Pump reservoirs must be accessible only to authorized persons. Intakes to the slide pump must be designed to allow cleaning without danger of trapping the operator.	REMOVED – REQUIREMNT ADDRESSED IN OTHER SECTIONS
	NAC 444.1968 Water slides: Control of water. 1. A surge-free automatic water makeup system with a manual override must be provided and constructed so that the normal operating level of the splash pool is maintained at all times. Approved backflow protection must be provided. 2. The velocity of water at the weir or inlet grate must not exceed 1 1/2 feet (0.4 meters) per second. 3. A perimeter overflow gutter, if used, is not required directly under slide flumes or along the weirs that separate splash pools and pump reservoirs. 4. Surface skimming devices may be used instead of a perimeter overflow gutter.	REMOVED – REQUIREMNT ADDRESSED IN OTHER SECTIONS
2-1004 Wave Pools		
2-1004.1 Access (A) BATHERS must gain access to the WAVE POOL at the shallow or beach end with the exception of an allowable ADA designated entry point. (1) The sides of the WAVE POOL shall be protected from unauthorized entry into the WAVE POOL by the use of a fence or other comparable BARRIER. (2) Handrails associated with ADA accessible entries shall be designed in such a way that	**NAC 444.1985 Wave pools.** 1. The generation of waves more than 3 feet (0.91 meters) in height in a wave pool, regardless of the depth of the pool, must not continue for more than 15 minutes at a time. When the generation of waves ends, it must be stopped for not less than 5	**REWORDED TO MIRROR MAHC**

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they do not present a potential for injury or entrapment with WAVE POOL BATHERS. (B) A PERIMETER DECK shall not be required around 100 percent of the WAVE POOL perimeter. A PERIMETER DECK shall be provided where BATHERS gain access to the WAVE POOL at the shallow or beach end and in locations where access is required for LIFEGUARDS. (C) WAVE POOLS shall be provided with handholds at the static water level or not more than six (6) inches above the static water level that shall be: (1) Continuous around the WAVE POOL'S perimeter except at zero depth beach entries, water depths less than 24 inches, or areas roped off, not allowing BATHER access; (2) Self-draining; (3) Installed so that their outer edge is flush with the WAVE POOL wall; and (4) Designed to ensure that body extremities will not become entangled during wave action. (D) RECESSED STEPS and handrails shall be provided at one or more locations along the wall of the WAVE POOL. The RECESSED STEPS and handrails must extend down the wall so that they will be easily accessible during wave generation at the lowest water level. The distance between the handrail and the wall must not exceed six (6) inches. (E) Ladders shall not be allowed along the walls of the WAVE POOL due to the entrapment potential. (F) WAVE POOLS shall be fitted with a float line located to restrict access to the caisson wall if required by the WAVE POOL equipment manufacturer. Safety rope and float lines typically required at shallow to DEEP WATER transitions shall not apply to WAVE POOLS.	minutes. 2. The recirculation and filtration system of wave pools must have a maximum turnover cycle of 4 hours. 3. The wave pool must not be used if the main drain is not clearly visible from the deck with the wave generating equipment turned off. 4. Bathers must gain access to the wave pool at the shallow or beach end. The sides of the pool must be protected from unauthorized entry into the pool by the use of a fence or other comparable barrier. 5. Wave pools must be provided with handholds at the static water level. The handholds must be self-draining and must be installed so that their outer edge is flush with the pool wall. The design of the handholds must ensure that body extremities will not become entangled during wave action. 6. Life jackets must be provided free for use by bathers who request them. 7. Each permanent station for pool attendants must be provided with a clearly labeled and readily accessible emergency shut-off switch for the control of the wave action. 8. An audible warning system must be provided to alert bathers of the beginning of wave generation. 9. The area where waves are generated must be protected by a barrier having openings not more than 2 inches (5.08 centimeters) in diameter. 10. Step holes and handrails must be provided at one or more locations along the wall of the pool. The step holes and handrails must extend down the wall so that they will be easily accessible during wave generation at the lowest water level. The distance between the handrail and the wall must not exceed 6 inches (15.24 centimeters). 11. A sign stating "NO DIVING" in contrasting letters not less than 4 inches (10.16 centimeters) in height must be posted in a conspicuous place.	
2-1004.2 Safety (A) Proper storage shall be provided for life jackets and all other equipment used in the WAVE POOL that will allow for thorough drying to prevent mold and other biological growth. (B) A minimum of two emergency shut-off switches to disable the wave action shall be provided, one on each side of the WAVE POOL. These switches shall be clearly labeled and readily accessible to LIFEGUARDS.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**

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(C)	A sign stating "NO DIVING" in contrasting letters not less than four (4) inches in height must be posted in a conspicuous place.		
(D)	Caisson BARRIERS shall be provided for all WAVE POOLS that prevent the passage of a two (2) inches in diameter. [NEW]		
2-1005	**Therapy Pools**		
2-1005.1	Floor slope may exceed one (1) foot in 12 feet for water shallower than five (5) feet. Break points in floor slope shall be identified with a contrasting band consistent with Section 2-3018.4(A). [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-1005.2	Hydrotherapy or jet systems shall be independent of the recirculation, filtration, and heating systems.	**NAC 444.486 Pumps.** 7. Hydrotherapy pumps and piping systems must be independent and must not be interconnected with the filtration plumbing system.	**REWORDED TO MIRROR MAHC**
2-1005.3	Special equipment may be allowed by the HEALTH AUTHORITY with proper justification. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-1006	**Lazy Rivers**		
2-1006.1	Handrails, steps, stairs and propulsion jets for LAZY RIVERS shall not protrude into the river. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-1006.2	Means of access/egress shall be provided at 150 foot intervals around the LAZY RIVER.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
(A)	A handhold in compliance with Section 2-3013 shall be required on at least one side of the LAZY RIVER.		
(B)	A DECK shall be provided along the entire length of the LAZY RIVER.		
(C)	The DECK shall be allowed to alternate sides of the LAZY RIVER.		
(D)	Obstructions around the perimeter of the LAZY RIVER, such as bridges or landscaping, shall be allowed provided they do not impact lifeguarding, sight lines, or rescue operations.		
(E)	All bridges spanning a LAZY RIVER shall have a minimum clearance of both eight (8) feet from the bottom of the LAZY RIVER and four (4) feet above the entire water surface with any structure overhead. [NEW]		
2-1007	**Interactive Water Play Venues**		
2-1007.1	INTERACTIVE WATER PLAY VENUES shall have a slip-resistant and easily cleanable surface. Any manufactured surfacing shall be deemed suitable by the manufacturer for aquatic and chlorinated environments. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-1007.2	The INTERACTIVE WATER PLAY VENUE shall be properly sloped so that only water from the AQUATIC FEATURES flows back to the INTERACTIVE WATER PLAY VENUE collection tank.	**NAC 444.200 Spray pools.** 1. The water supply for a spray pool must at all times meet the requirements relating to water set forth in NAC 444.108 to 444.188, inclusive. 2. The spray pool must be equipped at its low point with an unvalved drain of sufficient capacity and design to prevent any accumulation of water in the pool.	REWORDED TO MIRROR MAHC
(A)	Areas adjacent to the INTERACTIVE WATER PLAY VENUE shall be sloped away from the collection drains.		
(B)	The slope of the INTERACTIVE WATER PLAY VENUE shall be sufficient to prevent standing water from collecting on the pad.		
2-1007.3	The size, number and locations of the INTERACTIVE WATER PLAY VENUE drains shall be determined and specified so as to assure water does not accumulate on the INTERACTIVE WATER PLAY VENUES.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT

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(A)	Flow through the drains to the INTERACTIVE WATER PLAY VENUE collection tank shall be under gravity.		
(B)	Direct suction outlets from the INTERACTIVE WATER PLAY VENUE shall be prohibited. [NEW]		
2-1007.4	Openings in the grates covering the drains shall not exceed ½ inches wide. Gratings shall not be removable without the use of tools. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-1007.5	The INTERACTIVE WATER PLAY VENUE collection tank shall be designed to provide ready access for cleaning and inspections, and	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
(A)	The INTERACTIVE WATER PLAY VENUE collection tank shall be capable of complete draining.		
(B)	The access hatch or lid shall be locked or require a tool to open. [NEW]		
2-1007.6	DECK Area	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
(A)	INTERACTIVE WATER PLAY VENUES shall be kept free of landscape debris by either:		
(1)	Eight (8) feet of DECK area, or		
(2)	Raised curbs, or		
(3)	Raised planters.		
(B)	The DECK shall be of a uniform, easily cleaned, impervious material.		
(C)	The DECK shall be protected from surface runoff. [NEW]		
2-1007.7	A BARRIER shall be provided to separate an INTERACTIVE WATER PLAY VENUE from another body of water within the same facility. ***Exception:*** The INTERACTIVE WATER PLAY VENUE is separated by a distance of at least 15 feet from other bodies of water.	**NAC 444.204 General requirements for wading pools; location of spray pools.** 3. Wading pools and spray pools must be located at the shallow end of the main pool and must be separated from it by a separate fence or barrier as described in NAC 444.136.	REWORDED TO MIRROR MAHC; REDUCED REQUREMENT – NO LONGER NEED A SEPARATE ENCLOSURE FOR WADING POOLS
2-1007.8	If an AQUATIC FACILITY only consists of an INTERACTIVE WATER PLAY VENUE, then the requirements for an ENCLOSURE shall not apply unless otherwise deemed necessary by the HEALTH AUTHORITY. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-1007.9	Spray features shall be designed and installed to be seen clearly, so as not to be a hazard to BATHERS due to water velocity from the spray feature discharge, or other safety hazards. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-1007.10	Maximum velocity at the orifice of the spray feature nozzle shall not exceed 20 feet per second. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-1007.11	Depth markings and warning signs are not required for INTERACTIVE WATER PLAY VENUES. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-1007.12	NEC swimming POOL requirements shall apply to INTERACTIVE WATER PLAY VENUES. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-1008	**Wading Pools and Child Amusement Lagoons**		
		NAC 444.199 Child amusement lagoons. 1. The recirculation and filtration systems of child amusement lagoons must have a maximum turnover cycle of 1 hour. 2. Amusement devices used in child amusement lagoons must be designed and maintained so that	**REMOVED**

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	their surfaces are smooth, nontoxic and easily cleanable. The devices must not pose a safety or health hazard to bathers and must not interfere with circulation or disinfection of the water.	
	NAC 444.202 Wading pools: Construction. 1. A wading pool must have: (a) A maximum depth of 24 inches (60 centimeters); (b) A slope which does not exceed 1 in 12; and (c) A slip-resistant finish. 2. A wading pool constructed after November 1, 1988, must have a maximum turnover cycle of 30 minutes. All wading pools must have a separate system for circulation. Equipment which is used to recirculate and disinfect the water and which meets the applicable requirements of NAC 444.108 to 444.204, inclusive, must be installed and operated at wading pools which cannot maintain satisfactory water quality by using the equipment from an adjacent public bathing or swimming facility. 3. The outlets from the wading pool may be connected to a sanitary drain or returned to the recirculation system of the pool for refiltration at the suction side of the pump. A wading pool must have a waste outlet at its deepest point; so that it may be completely emptied to a sanitary drain. 4. A wading pool must have at least two inlets. 5. In general, standards of sanitation, surface skimming and all other details must be equal or superior to those set forth in NAC 444.108 to 444.188, inclusive.	**REMOVED**
2-1008.1 A BARRIER shall be provided to separate a WADING POOL or CHILD AMUSEMENT LAGOON from other POOLS unless the WADING POOL or CHILD AMUSEMENT LAGOON is separated by a distance of 15 feet from other bodies of water. **(A)** The BARRIER shall not be required to completely surround the WADING POOL or CHILD AMUSEMENT LAGOON if the shortest distance of travel between the WADING POOL or CHILD AMUSEMENT LAGOON around the BARRIER to the other POOL is a minimum of 15 feet. **(B)** WADING POOLS and CHILD AMUSEMENT LAGOONS near other WADING POOLS or CHILD AMUSEMENT LAGOONS shall not be required to be separated by a BARRIER. **(C)** Features and devices installed in a CHILD AMUSEMENT LAGOON shall be smooth, easily cleanable and of durable design intended for such use.	**NAC 444.204 General requirements for wading pools; location of spray pools.** 3. Wading pools and spray pools must be located at the shallow end of the main pool and must be separated from it by a separate fence or barrier as described in NAC 444.136.	REWORDED TO MIRROR MAHC; REDUCED REQUREMENT – NO LONGER NEED A SEPARATE ENCLOSURE FOR WADING POOLS
2-1008.2 Underwater lights shall not be installed in WADING POOLS or CHILD AMUSEMENT LAGOONS.	**NAC 444.204 General requirements for wading pools; location of spray pools.** **4.** Underwater lights are prohibited in wading pools.	REWORDED TO PROVIDE LANGUAGE CONSISTENCY

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2-1009 Artificial Swimming Lagoons		
2-1009.1 The DESIGN PROFESSIONAL shall consult with the HEALTH AUTHORITY before the preparation and submission of any engineering plans or specifications for an ARTIFICIAL SWIMMING LAGOON.	**NAC 444.208 Artificial swimming lagoons.** 1. The design engineer shall consult with the health authority before the preparation and submission of any engineering plans or specifications for an artificial swimming lagoon.	REWORDED TO PROVIDE LANGUAGE CONSISTENCY
2-1009.2 An ARTIFICIAL SWIMMING LAGOON may deviate from other provisions of these Regulations through the submission of a WAIVER addressing all safety concerns generated by the deviation from regulatory requirements, if its design and construction are within the limits of sound engineering practice and present no health or safety hazards.	**NAC 444.208 Artificial swimming lagoons.** 2. An artificial swimming lagoon may deviate from other provisions of NAC 444.010 to 444.306, inclusive, if its design and construction are within the limits of sound engineering practice and present no health or safety hazard.	REWORDED TO PROVIDE LANGUAGE CONSISTENCY
2-10010 Surf Pools		
2-10010.1 A SURF POOL may deviate from other provisions of these Regulations through the submission of a WAIVER addressing all safety concerns generated by the deviation from regulatory requirements, if its design and construction are within the limits of sound engineering practice and present no health or safety hazards. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-10011 Isolation And Flotation Units		
2-10011.1 The unit must be designed or ventilated to prevent any hazardous concentration of gases or vapors from disinfectants under all circumstances of operation.	**NAC 444.207 Isolation and flotation tanks.** 6. The tank must be designed or ventilated to prevent any hazardous concentration of fumes from toxic disinfectants under all circumstances of operation.	REWORDED TO MIRROR MAHC;
2-10011.2 Each unit must be located in a separate room equipped with an individual SHOWER. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-10012 Natural Bathing Places		
2-10012.1 A PERMIT to operate a NATURAL BATHING PLACE must be obtained from the HEALTH AUTHORITY. (A) Approval and operation of public bathing beaches will be based upon the result of a sanitary survey of the site and the results of the weekly microbiological testing of the water of the bathing area in accordance with this Section. (B) The flow of water supplying a bathing beach or the volume of water in a body of water on which a beach is located must be sufficient to provide at least 500 gallons of water per BATHER when the greatest number of BATHERS are in the water. (C) Evidence of human-caused pollution, floating debris, sludge accumulation and similar gross pollutants will disqualify the site as an acceptable bathing area until such pollutants are completely and permanently eliminated. (D) Water samples shall be submitted to a state-licensed laboratory each week. Such samples must meet the following criteria: E. coli at a geometric of 126 CFU per 100 mL and an STV (single test value) of 410 CFU per 100 mL measured using EPA Method 1603, or any other equivalent method that measures E. coli. (E) There must be a minimum of 40 square feet of beach area per BATHER.	**NAC 444.240 Permit required.** A permit to operate a natural bathing place on any waters of this State must be obtained from the health authority. Acceptability as a public bathing place will be based on the provisions of NAC 444.242. [Bd. of Health, Public Bathing Places Reg. Art. 46 § 46.1, eff. 5-21-74] **NAC 444.242 Standards for approval.** 1. Approval of public bathing beaches will be based upon the result of a sanitary survey of the site and the results of the bacteriological and chemical analysis of the water in the bathing area. 2. The flow of water supplying a bathing beach or the volume of water in a body of water on which a beach is located must be sufficient to provide at	REWORDED TO PROVIDE LANGUAGE CONSISTENCY

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(F) The slope of the bottom of the beach area must be gradual and be such as to not create a safety hazard to the PATRON of the beach. The area floor must be free of physical hazards and obstructions. **(G)** Failure to meet any of the criteria noted above (B)-(F) shall result in the immediate closure of the NATURAL BATHING PLACE.	least 500 gallons (1,853 liters) of water per bather when the greatest number of bathers are in the water. 3. Evidence of human-caused pollution, floating debris, sludge accumulation and similar gross pollutants will disqualify the site as an acceptable bathing area until such pollutants are completely and permanently eliminated. 4. There must be a minimum of 40 square feet (3.7 square meters) of beach area per bather. 5. The slope of the bottom of the beach area must be gradual and be such as to not create a safety hazard to the user of the beach. The area floor must be free of glass, tin cans and other hazards. 6. Because each natural bathing place presents conditions different from all other natural bathing places, the health authority may apply, waive or modify these provisions as it feels best serves the public health.	
2-10012.2 A NATURAL BATHING PLACE may require a WAIVER to address unique safety concerns inherent to the NATURAL BATHING PLACE.	**NAC 444.246 Notices and markers.** 1. Areas of excessive depths, containing rocks, near steep banks, or other areas which might be considered a potential hazard to the users must be adequately marked with buoys, poles or other markers so as to warn users.	REWORDED TO PROVIDE LANGUAGE CONSISTENCY
2-10012.3 The perimeter of the designated swimming area must be marked with buoys in the water and signage at either end of the beach designating "No swimming beyond this point."	**NAC 444.246 Notices and markers.** 2. The outer safe limits or boundary of the bathing area must be marked with buoys or other markers visible to bathers and spaced at not more than 100 feet (30.5 meters) apart.	REWORDED TO PROVIDE LANGUAGE CONSISTENCY
2-10012.4 HYGIENE FACILITIES must be constructed in accordance with the provisions of Section 2.8.	**NAC 444.248 Required facilities.** 1. Sanitary facilities must be provided in proportion to the anticipated bathing load. These must include: (a) Toilet and hand washing facilities and dressing rooms clearly marked for each sex; (b) A safe and approved water supply; and (c) Drinking fountains, soap and toilet tissue. 2. Conveniently located rubbish containers must be provided. These containers must be emptied whenever necessary and be kept in a sanitary condition. 3. Where night bathing is permitted, adequate lighting must be provided for the bathhouses and bathing area. 4. There must be telephone connections and	REWORDED TO PROVIDE LANGUAGE CONSISTENCY

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	transportation facilities available for emergency use.	
2-10012.5 There must be telephone connections and transportation facilities available for emergency use.	**NAC 444.248 Required facilities.** 4. There must be telephone connections and transportation facilities available for emergency use.	REWORDED TO PROVIDE LANGUAGE CONSISTENCY
2-10013 Deluge Showers		
2-10013.1 In addition to the general AQUATIC VENUE requirements stated in these Regulations, deluge showers shall comply with the additional provisions or reliefs of this section. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-10013.2 Shall be constructed to achieve a 30 minute maximum TURNOVER. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
2-10013.3 Signage must be posted in the immediate vicinity declaring that the SHOWER utilizes re-circulated water. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
2-10014 Innovative Designs An AQUATIC VENUE utilizing an innovative design may be APPROVED by the HEALTH AUTHORITY if its design and construction present no health or SAFETY hazard to the public. Applications and supporting documentation must be stamped by an engineer or architect licensed in Nevada. The HEALTH AUTHORITY will require written WAIVER(S) prior to approval. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
Section 3 Faculity Operation and Maintenance		
3-1 Operating Permits The provisions of this Section apply to all AQUATIC FACILITIES covered by these Regulations regardless of when constructed, unless otherwise noted. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-101 Owner Responsibilities		
3-101.1 Prior to opening for use, the AQUATIC FACILITY OWNER shall apply to the HEALTH AUTHORITY for a PERMIT to operate each AQUATIC VENUE.	**NAC 444.258 Operating permits.** 1. No public bathing or swimming facility or natural bathing place may operate unless the operator has applied for and received an operating permit from the health authority.	**Consistent with current administrative policies**
3-101.2 A separate PERMIT is required for each newly constructed or SUBSTANTIALLY ALTERED AQUATIC VENUE at an existing AQUATIC FACILITY. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-101.3 Before an initial PERMIT to operate is issued, the following procedures shall be completed: **(A)** The AQUATIC FACILITY OWNER has demonstrated the AQUATIC FACILITY, including all newly constructed or SUBSTANTIALLY ALTERED AQUATIC VENUES, is in compliance with the requirements of these Regulations, **(B)** A initial inspection has been conducted, and **(C)** The HEALTH AUTHORITY has APPROVED the AQUATIC FACILITY to be open to the public.	**NAC 444.104 Inspections.** **3.** The facility may not be placed in operation until the inspection shows compliance with the requirements of NAC 444.010 to 444.306, inclusive.	REWORDED TO MIRROR MAHC
3-101.4 The PERMIT to operate shall: **(A)** Be issued in the name of the OWNER, **(B)** Be specific to a single AQUATIC VENUE, and	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT

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(C) Specify the period of time APPROVED by the HEALTH AUTHORITY. [NEW]		
3-101.5 The AQUATIC FACILITY OWNER shall renew all PERMITS to operate annually according to the schedule established by the HEALTH AUTHORITY.	**NAC 444.258 Operating permits.** 2. Permits expire on January 1 of each year, unless previously revoked for a violation of the statutes and the regulations of the State Board of Health or the local board of health. The health authority will exercise the right to close facilities and bathing places not operating in conformity with those regulations.	REWORDED TO MIRROR MAHC
3-101.6 The PERMIT to operate may be withheld, revoked, or denied by the HEALTH AUTHORITY for noncompliance of the AQUATIC FACILITY with the requirements of these Regulations and failure to pay required fees associated with the PERMIT.	**NAC 444.302 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 bathing or swimming facility or natural bathing place to prohibit any person from using it if the health authority finds: (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 swimming or bathing. (c) A lack of required supervisory personnel or required lifeguards. (d) That the operator of the facility or bathing place 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 NRS 444.065 to 444.120, inclusive, and NAC 444.010 to 444.306, inclusive.	REWORDED TO MIRROR MAHC
3-101.7 The OWNER of an AQUATIC FACILITY is responsible for the facility being operated, maintained, and managed in accordance with the requirements of these Regulations.	**See NAC 444.302 Suspension or denial of operating permit.**	REWORDED TO MIRROR MAHC

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3-102 Permits		
3-102.1 The PERMIT to operate shall be posted at the AQUATIC FACILITY in a location conspicuous to the public or immediately available for review upon request.	**NAC 444.258 Operating permits.** 4. The permit must be posted in a conspicuous place at or near the office of each facility or bathing place. In addition, placards directing the behavior of bathers must be prominently posted in locker rooms, offices, showers, toilets or elsewhere about the facility or bathing place.	REWORDED TO MIRROR MAHC
3-102.2 Operation of an AQUATIC FACILITY without a PERMIT shall be prohibited.	**NAC 444.302 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 bathing or swimming facility or natural bathing place to prohibit any person from using it if the health authority finds: (e) That the operator does not possess a valid operating permit.	REWORDED TO MIRROR MAHC
3-102.3 The HEALTH AUTHORITY may order a newly constructed or SUBSTANTIALLY ALTERED AQUATIC VENUE without or outside of an APPROVED PERMIT to close until the AQUATIC FACILITY has obtained an APPROVED PERMIT.	**See NAC 444.302 Suspension or denial of operating permit.**	REWORDED TO MIRROR MAHC
3-2 Aquatic Facility Operation and Maintenance		
3-201 Closure and Reopening		
3-201.1 If an AQUATIC VENUE is not open for use the following conditions shall be met to protect health and safety: **(A)** Where the AQUATIC VENUE has a separate ENCLOSURE per Section 2-604: **(1)** The water shall be recirculated and treated to meet the criteria of these Regulations; **(2)** The water shall be drained; or **(3)** An APPROVED safety cover that is listed and labeled to ASTM F1346-91 by an ANSI-accredited certification organization shall be installed provided no public health nuisances are present. **(B)** Where the AQUATIC VENUE does not have a separate ENCLOSURE per Section 2-604 and other parts of the AQUATIC FACILITY are open for use: **(1)** The water shall be recirculated and treated to meet the criteria of these Regulations and the AQUATIC VENUE shall be staffed to keep BATHERS out; or **(2)** An APPROVED safety cover that is listed and labeled to ASTM F1346-91 by an ANSI-accredited certification organization shall be installed provided no public health nuisances are present or created. **(C)** Where the AQUATIC VENUE does not have a separate ENCLOSURE per Section 2-604, and the AQUATIC FACILITY is closed for use: **(1)** The water shall be recirculated and treated to meet the criteria of these Regulations; **(2)** The water shall be drained; or **(3)** An APPROVED safety cover that is, listed and labeled to ASTM F1346-91 by an ANSI-accredited certification organization shall be installed provided no public health nuisances are present. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT

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3-201.2 An OWNER or operator of a closed AQUATIC VENUE shall verify that the AQUATIC VENUE meets all applicable criteria of these Regulations before reopening the AQUATIC VENUE. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-202 Preventive Maintenance Plan		
3-202.1 Written Plan **(A)** A written comprehensive preventive maintenance plan for each AQUATIC VENUE shall be available at the AQUATIC FACILITY. **(B)** The AQUATIC FACILITY preventive maintenance plan shall include details and frequency of OWNER/operator's planned routine facility inspection, maintenance, and replacement of recirculation and water treatment components. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-202.2 Facility Documentation **(A)** A copy of the APPROVED plans and specifications for each AQUATIC VENUE constructed after the adoption of these Regulations shall be available at the AQUATIC FACILITY. **(B)** A comprehensive inventory of all mechanical equipment associated with each AQUATIC VENUE shall be available at the AQUATIC FACILITY. **(C)** This inventory shall include: **(1)** Equipment name and model number, **(2)** Manufacturer and contact information, **(3)** Local vendor/supplier and technical representative, if applicable, and **(4)** Replacement or service dates and details. **(D)** Operation manuals for all mechanical equipment associated with each AQUATIC VENUE shall be available at the AQUATIC FACILITY. If no manufacturer's operation manual is available, then the AQUATIC FACILITY should create a written document that outlines standard operating procedures for maintaining and operating the piece of equipment.	**NAC 444.262 Supervision and maintenance of facilities.** 1. Supervision must be present at all times a wading pool is in use. 2. Every public bathing or swimming facility must be maintained under the supervision of a qualified operator who is responsible for the sanitation and safety of the facility and for the maintenance of its equipment and records. 3. The operator must demonstrate to the health authority that he or she 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.	REWORDED TO MIRROR MAHC
3-3 Aquatic Venue Structure		
3-301 Depth Markers		
3-301.1 Depth markers shall be provided in locations in accordance with Section 2-3017 and maintained.	**NAC 444.118 Marking depth.** 1. The depth of the water in a pool must be plainly marked in units of feet at or above the water surface on the vertical pool wall at maximum and minimum points and at the points of break between the deep and shallow portions and at intermediate increments of depth, spaced at not more than 25-foot (7.6-meter) intervals. 2. Depth markers must be in numerals not less than 4 inches (10 centimeters) in height and of a color contrasting with the background. Markers must be on both sides and at the ends of the pool. 3. The markings must be plainly visible to persons in the pool and to persons about to enter the water.	REWORDED TO MIRROR MAHC
3-301.2 No Diving markers shall be provided in accordance with Section 2-3017 and maintained.	NEW REQUIREMENT NOT FOUND IN	REWORDED TO

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3-302 Pool Shell and Interior Surface Maintenance		
3-302.1 Cracks shall be repaired when they may increase the potential for: (A) Leakage, (B) Trips or falls, (C) Lacerations, or (D) Impact the ability to properly clean and maintain the AQUATIC VENUE area.	**NAC 444.114 Side walls and bottoms.** 2. Pools must be constructed of concrete or other impervious and structurally rigid materials with a finish adapted to the bathing demands of different areas of the pools. All side walls and bottom surfaces must be watertight, free from structural cracks, and have a slip-resistant finish which is smooth and easily cleanable. Floors and walls below the gutter and 6-inch tile line must be white or light pastel in color and must reflect any natural or artificial light.	REWORDED TO MIRROR MAHC
3-302.2 Surface cracks under 1/8 inch wide shall be documented and monitored for any movement or change including opening, closing, and/or lengthening. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
3-302.3 Any sharp edges shall be removed. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
3-302.4 When cracks or chips in the finish expose BATHERS to the POOL shell, the AQUATIC VENUE must be repaired or resurfaced prior to reopening for use. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
3-4 Indoor/Outdoor Environment		
3-401 Lighting		
3-401.1 Lighting Maintained (A) Lighting systems, including emergency lighting, shall be maintained in all PATRON areas and maintenance areas, to ensure the required lighting levels are met as specified in Section 2-401. (B) The AQUATIC FACILITY shall not be open if light levels are such that the main drain is not visible from poolside. (C) Underwater lights, where provided, shall be operational and maintained as designed. Branch circuits that supply underwater lights operating at more than the Low Voltage Contact Limit as defined in NEC 680.2 must be GFCI protected. (D) Operation of an unprotected underwater light circuit shall be prohibited. (E) Damage to underwater lighting of any kind shall result in the disabling of all applicable electrical connections utilizing a lock out tag out procedure or the ENCLOSURE shall be closed until repairs have been completed. If a significant portion of the facility's underwater lighting is affected, the facility shall close to night swimming until all repairs have been completed.	**NAC 444.142 Lighting.** 1. Artificial lighting must be provided for all public bathing or swimming facilities, natural bathing places, bathhouses, toilet rooms, dressing rooms, and equipment rooms that are to be used at night or that do not have adequate natural lighting. 2. Pools designed and maintained for use at night must be equipped with lighting designed and spaced so that all parts of the pool, including the bottom, may be readily seen without glare. 3. The lighting system for outdoor pools must be designed with sources of illumination located so as to prevent insects attracted by the lights from falling into the water. 4. 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. 5. If bathing or swimming at night is permitted and underwater lighting: (a) Is used, area lighting must be directed toward	REWORDED TO MIRROR MAHC

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	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 pool lighting must be provided and not less than 2.0 watts must be employed per square foot (.093 square meter) of deck area.	
3-401.2 Glare **(A)** The AQUATIC FACILITY OWNER shall ensure that glare conditions are assessed to ensure that the AQUATIC VENUE bottom and objects in the POOL are clearly visible throughout operating hours. **(B)** If the AQUATIC VENUE requires LIFEGUARDS, the AQUATIC FACILITY OWNER shall ensure that glare conditions are assessed from each LIFEGUARD STATION to ensure that the AQUATIC VENUE bottom and objects in the POOL are clearly visible throughout operating hours. **(C)** Windows and lighting equipment shall be adjusted, if possible, to minimize glare and excessive reflection on the water surface. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
3-401.3 Night swimming shall be prohibited unless required light levels in accordance with Section 2-401 are provided. Night swimming shall be considered one half hour before sunset to one half hour after sunrise.	**NAC 444.142 Lighting.** 7. If lighting is not provided as required by this section, the operator of the facility or natural bathing place: (a) Shall not permit any use of the facility or bathing place after dark.	REWORDED TO MIRROR MAHC
3-401.4 Emergency lighting shall be tested and maintained according to manufacturer's recommendations. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-402 Indoor Aquatic Facility Ventilation		
3-402.1 AIR HANDLING SYSTEMS shall be maintained and operated by the OWNER/operator to protect the health and safety of the facility's PATRONS. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-402.2 AIR HANDLING SYSTEMS shall be maintained and operated to comply with all requirements of the original system design, construction, and installation. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-402.3 Indoor Facility Areas **(A)** The AIR HANDLING SYSTEM operation and maintenance requirements shall apply to an INDOOR AQUATIC FACILITY including: **(1)** The AQUATIC VENUES, and **(2)** The surrounding BATHER and SPECTATOR/STADIUM SEATING area; **(B)** But does not include: **(1)** Mechanical rooms, **(2)** HYGIENE FACILITIES and locker rooms, and **(3)** Any associated rooms which have a direct opening to the AQUATIC FACILITY. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-402.4 The ventilation system must be capable of preventing the accumulation of condensation, CHLORAMINES, and microbial growth.	**NAC 444.228 Ventilation.** 1. Indoor pools, 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 pools must be so designed as to prevent direct drafts on the bathers. 2. All interior rooms must be ventilated so that	REWORDED TO MIRROR MAHC

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	they do not remain excessively damp.	
3-403 Electrical		
3-403.1 Electrical Repairs **(A)** Repairs or alterations to electrical equipment and associated equipment shall be in accordance with applicable law. **(B)** All defects in the electrical system shall be immediately repaired by a qualified PERSON. **(C)** Electrical wiring, whether permanent or temporary, shall comply with applicable law.	**NAC 444.140 Electrical requirements.** 1. All new electrical wiring in a public bathing or swimming facility must conform with the 1987 edition of the *National Electric Code* of the National Fire Protection Association and applicable state and local building codes. A copy of the *Code* may be obtained from the International Conference of Building Officials, 5360 South Workman Mill Road, Whittier, California 90601, at a cost of $20.50. 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 pool deck and immediate environment must not be within the reach of bathers. 3. Ground fault circuit interrupters must be provided on all new facilities in accordance with the 1987 edition of the *National Electric Code* for all lighting circuits as well as for motors and other electrical circuits in the area of any pool. These devices are required on an existing facility if the health authority determines it is necessary to protect the safety of bathers. **NAC 444.466 Electrical requirements.** 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.	REWORDED TO MIRROR MAHC
3-404 Emergency Exit		
Emergency exit routes shall be established for both indoor facilities and outdoor facilities and be maintained so that they are well lit, unobstructed, and accessible at all times.	**NAC 444.224 Entrances and exits.** 2. An emergency fire exit must be provided in the fence or structure enclosing the pool area, and this exit must be plainly marked. A suitable fire extinguisher must be maintained in the checking stand.	REWORDED TO MIRROR MAHC
3-405 Plumbing		

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3-405.1 Water Supply **(A)** All plumbing shall be maintained in good repair with no leaks or discharge. **(B)** Potable water shall be available at all times to PATRONS. **(C)** Water introduced into the POOL, either directly or to the RECIRCULATION SYSTEM, shall be supplied with appropriate BACKFLOW prevention.	**NAC 444.216 Plumbing requirements.** 1. At least one drinking fountain must be made available to bathers at a public bathing or swimming facility. A raised step must be provided to enable children of all sizes to drink from the fountain without assistance. **NAC 444.146 Connections for supply and disposal of water.** 1. No direct mechanical 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 backflow in a manner approved by the health authority. All pools must be equipped with acceptable provisions, such as overfall fillspouts, surge tanks or receptors, for adding makeup water.	REWORDED TO MIRROR MAHC
3-405.2 Drinking Fountains **(A)** Drinking fountains shall be maintained clean and in good repair. **(B)** Drinking fountains shall have sufficient water pressure to allow correct adjustment to accommodate water dispensing to prevent PATRON facial contact with common surfaces and prevent water from landing outside the catch basin. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-405.3 Waste Water **(A)** AQUATIC VENUE waste water, including backwash water and cartridge cleaning water, shall be disposed of in accordance with applicable law. **(B)** Waste water and backwash water shall not be returned to an AQUATIC VENUE or the AQUATIC FACILITY'S water treatment system. **(C)** Filter backwash lines, DECK drains, and other drain lines connected to the AQUATIC FACILITY or the AQUATIC FACILITY RECIRCULATION SYSTEM shall be discharged through an APPROVED air gap. **(D)** No standing water shall result from any discharge, nor shall it create a nuisance, offensive odors, stagnant wet areas, or create an environment for the breeding of insects.	**NAC 444.176 Disposal of waste.** 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. 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 backflow introducing contaminated water into the pool 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.	REWORDED TO MIRROR MAHC
3-405.4 Removal of water from the POOL and replacement with make-up water shall be performed as needed to maintain water quality. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-406 Solid Waste		
3-406.1 Outside trash and recycling recepticles and storage areas shall be maintained in good repair and clean condition. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-406.2 Solid waste and recycled materials shall be removed at a frequency to prevent the attraction of vermin or cause odors and disposed of in compliance with applicable law. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-407 Decks		

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3-407.1 Food Preparation and Consumption **(A)** Food preparation and cooking shall only be permitted in designated areas as specified in these Regulations. **(B)** BATHERS shall not eat while in or partially in the AQUATIC VENUE water except in designated areas located at least 4 feet from the water's edge. Beverages in a covered container may be consumed while in or partially in the AQUATIC VENUE. **(C)** Swim-up bars or gaming areas, when utilized, shall provide facilities for BATHERS to place food and drinks on a surface which can be SANITIZED and spill resistant containers to prevent the introduction of food or drink into the AQUATIC VENUE water.	**NAC 444.1972 Water slides: Food and drink; trash.** 1. Food or drink must not be permitted in locker or change rooms, in the immediate area of the flumes and pools, or on the surrounding decks, stairs and walkways. Food and drink must be permitted in any visitor and spectator area or in any segregated snack area for bathers. **NAC 444.1974 Water slides: Posting notice of prohibited conduct.** 9. The possession of any glass, bottle or food in or near any pool. **NAC 444.288 Food and drinks.** Food or drinks are not permitted in a public bathing or swimming facility, except in the visitor area or in areas which have been approved by the health authority for food or drinks. **NAC 444.536 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.	REWORDED TO MIRROR MAHC
3-407.2 Glass **(A)** Glass food and beverage containers shall be prohibited in PATRON areas of AQUATIC FACILITIES. **(B)** Glass furniture shall be prohibited in an AQUATIC FACILITY.	**NAC 444.1974 Water slides: Posting notice of prohibited conduct.** 9. The possession of any glass, bottle or food in or near any pool.	REWORDED TO MIRROR MAHC
3-407.3 DECK Maintenance **(A)** The PERIMETER DECK shall be maintained free from obstructions, including PATRON seating, to preserve space required for lifesaving and rescue. **(B)** Diaper changing shall be prohibited on the DECK. **(C)** DECK areas shall be cleaned daily and kept free of debris, vermin, and vermin harborage. **(D)** DECK surfaces shall be maintained to their original design slope and integrity. **(E)** Cracks shall be repaired when they increase the potential for: **(1)** Trips or falls, **(2)** Lacerations, and/or **(3)** Impact the ability to properly clean and maintain the DECK area. **(F)** DECK areas shall be free from standing water. **(G)** DECK drains shall be cleaned and maintained to prevent blockage and ponding of water. **(H)** Absorbent materials used in wet areas must be able to be removed for daily cleaning and DISINFECTION. **(I)** Fixed equipment, loose equipment, and DECK furniture shall not interfere with emergency exit procedures or intrude upon the AQUATIC VENUE DESIGNATED WALKWAY.	**NAC 444.134 Decks.** 1. Except as otherwise provided in this subsection and in NAC 444.196 and 444.1995, a clear, unobstructed deck must be provided around the entire perimeter of a pool. In no case may the width of the deck be less than 4 feet (1.2 meters). A deck may be obstructed for a distance equal to not more than 10 percent of the perimeter of the pool if: (a) The design of the obstruction does not endanger the health or safety of persons using the pool; (b) An unobstructed area of deck not less than 4 feet wide is provided around or through the obstruction not more than 15 feet (4.55 meters) from the edge of the pool; and (c) Written approval for the obstruction is obtained from the health authority before construction or installation of the obstruction. 2. The paved area of the deck must extend not	REWORDED TO MIRROR MAHC

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	less than 4 feet (1.2 meters) from both sides and rear of any diving board or its appurtenances. 3. The surface of the paved deck must not drain into the pool or the overflow gutter. Drainage must be conducted from the deck in a manner that will not create muddy, hazardous or objectionable conditions. Decks must slope on a minimum slope of 1/4 inch per foot (2 percent) to the drains to points at which the water will have a free, unobstructed flow to points of disposal at all times. If deck drains are provided, they must be spaced or arranged so that not more than 400 square feet (37.2 square meters) of area is tributary to each drain and drains must not be more than 25 feet (7.6 meters) apart. Drainage from the decks must not be returned to the recirculation system. 4. The deck must have a slip-resistant surface that can be cleaned by hosing and causes no discomfort to bare feet. 5. Provision must be made to prevent the drainage of materials from lawns or landscaped areas onto the pool decks or into the pool.	
3-408 Aquatic Facility Maintenance		
All appurtenances, features, signage, safety and other equipment, and systems required by these Regulations shall be provided and maintained. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-408.1 Diving Boards and Platforms **(A)** The finish and profile of surfaces of diving boards and platforms shall be maintained to prevent slips, trips, and falls. **(B)** Diving boards shall be inspected daily for cracks and loose bolts with cracked boards removed and loose bolts tightened immediately.	**NAC 444.122 Diving area and equipment.** 4. Diving boards, towers and platforms must have a slip-resistant finish and, if covered with an absorbent material, the cover must be disinfected daily.	REWORDED TO MIRROR MAHC
3-408.2 Steps and Guardrails **(A)** Steps and guardrails shall be secured so as not to move during use. **(B)** The profile and surface of steps shall be maintained to prevent slips and falls. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-408.3 The profile and surface of starting platform steps shall be in good repair to prevent slips, trips, falls, and pinch hazards. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-408.4 WATERSLIDES **(A)** WATERSLIDES shall be maintained and operated to manufacturer's/designer's specifications. **(B)** Slime and biofilm layers shall be removed on all accessible WATERSLIDE surfaces. **(C)** WATERSLIDE water flow rates shall be checked to be within designer or manufacturer's specifications prior to opening to the public. **(D)** Where WATERSLIDE plumbing lines are susceptible to holding stagnant water, WATERSLIDE pumps shall be started with sufficient time prior to opening to flush such plumbing lines with treated water. **(E)** The water shall be tested to verify the disinfectant in the water is within the parameters	**NAC 444.1968 Water slides: Control of water.** 1. A surge-free automatic water makeup system with a manual override must be provided and constructed so that the normal operating level of the splash pool is maintained at all times. Approved backflow protection must be provided. 2. The velocity of water at the weir or inlet grate must not exceed 1 1/2 feet (0.4 meters) per second. 3. A perimeter overflow gutter, if used, is not	REWORDED TO MIRROR MAHC

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specified in Section 3-503.1.	required directly under slide flumes or along the weirs that separate splash pools and pump reservoirs. 4. Surface skimming devices may be used instead of a perimeter overflow gutter.	
3-408.5 ENCLOSURES and BARRIERS **(A)** Required ENCLOSURES to include fencing and gates shall be maintained at all times. **(B)** Gates, locks, and associated alarms, if required, shall be tested daily prior to opening.	**NAC 444.136 Barriers; exclusion of unauthorized persons.** 1. Provision must be made to exclude unauthorized persons from any pool or pool area. A pool must be surrounded by a fence, wall, building or other barrier that completely encloses the pool area and otherwise complies with the requirements of this section. No part of a pool enclosure may be used for common foot traffic. 2. The barrier must be impenetrable for small children and must not offer any external handholds or footholds. 3. In the case of a swimming pool 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 (1.5 meters) in height. Courtyard-type concepts in which gates or doors open directly into a pool 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 (1.8 meters) in height. 4. Any vertical members in the barrier must not be more than 4 inches (10.16 centimeters) apart. 5. Any opening at the bottom of the barrier must not be more than 4 inches (10.16 centimeters) in height. 6. Any gate or door that opens into the pool 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 above the ground. (b) Must self-close and positively self-latch from any open position. (c) Must not be blocked open or otherwise disabled to prevent closing and latching. (d) Must, in the case of an indoor pool, be made of metal and installed in a metal frame. The operator of the pool shall periodically inspect	REWORDED TO MIRROR MAHC

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	each such gate or door to ensure that it is operating properly.	
3-408.6 AQUATIC FACILITY Cleaning **(A)** The AQUATIC VENUE shall be kept clean of debris, organic materials, and slime/biofilm in accessible areas in the water and on surfaces. **(B)** Vacuuming shall only be done when the AQUATIC VENUE is closed and port openings shall be covered with an APPROVED device cover when not in use.	**NAC 444.174 Vacuum cleaners.** 5. Any visible dirt on the bottom or sides of the pool, and any visible scum or floating matter on the surface of the pool must be removed before the pool is used.	REWORDED TO MIRROR MAHC
3-5 Recirculation and Water Treatment		
3-501 Recirculation Systems and Equipment		
3-501.1 General **(A)** All components of the filtration and RECIRCULATION SYSTEMS shall be kept in continuous operation 24 hours per day. **(1)** For AQUATIC FACILITIES that intend to reduce the recirculation flow rate below the minimum required design values only when the AQUATIC VENUE is closed, the system shall be operated according to the provisions outlined in Section 2-502.9(H). **(B)** Flow through the various components of a RECIRCULATION SYSTEM shall be balanced to maximize the water clarity and safety of a POOL. **(C)** For gutter or SKIMMER POOLS with main drains, the recommended recirculation flow should be as follows during normal operation: **(1)** At least 80 percent of the flow through the perimeter overflow system, and **(2)** No greater than 20 percent through the main drain.	**NAC 444.152 System for recirculation.** 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. 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.	REWORDED TO MIRROR MAHC
3-501.2 Each individual AQUATIC VENUE in a combined treatment system shall meet required TURNOVER times specified in **Table 2-502.9** and achieve all water quality criteria.	**NAC 444.152 System for recirculation.** 1. Except as otherwise provided in NAC 444.198 to 444.1995, inclusive, and 444.202, a recirculation system, consisting of pumps, filters, water conditioning, disinfection equipment and other accessory equipment, must be provided at each public bathing or swimming facility which will recirculate, clarify and disinfect the volume of water used in the facility every 6 hours or less. **See 2-502.9 for additional recirculation requirements.**	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS
3-501.3 INLETS shall be checked at least weekly for rate and direction of flow and adjusted as necessary to produce uniform circulation of water and to facilitate the maintenance of a uniform disinfectant residual throughout the POOL. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-501.4 Surface Skimming Devices **(A)** The perimeter overflow systems shall be kept clean and free of debris that may restrict flow. Removable grates must be in place during operation in order to prevent entrapment. **(B)** The automatic fill system, when installed, shall maintain the water level at an elevation such that the gutters must overflow continuously around the perimeter of the POOL.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT

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(C) The water levels shall be maintained near the middle of the SKIMMER openings. (D) The flow through each SKIMMER shall be adjusted to maintain skimming action that will remove all floating matter from the surface of the water. (E) The strainer baskets for SKIMMERS shall be maintained in good repair, not broken or missing and cleaned as necessary to maintain proper skimming. Damaged strainer baskets shall be replaced. (F) Weirs shall remain in place and in working condition at all times. Broken or missing SKIMMER weirs shall be replaced. (G) A flotation test may be required by the HEALTH AUTHORITY to evaluate the effectiveness of surface skimming. [NEW]		
3-501.5 Submerged Drains/Suction Outlet Covers or Gratings (A) Loose, broken, or missing suction outlet covers and sumps shall be secured or replaced immediately and installed in accordance with the manufacturer's requirements. (1) POOLS shall be closed until the required repairs can be completed. (2) AQUATIC FACILITIES shall follow procedures for closing and re-opening as applicable in Section 3-201. (B) The manufacturer's documentation on all outlet covers and sumps shall be made part of the permanent records of the AQUATIC FACILITY. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-501.6 Strainers shall be in place and cleaned as required to maintain pump performance.	**NAC 444.172 Strainers.** 1. The recirculation system must include a strainer to prevent hair, lint and other solids from reaching the pump and filters.	REWORDED TO MIRROR MAHC
3-501.7 Flow meters in accordance with Section 2-502.8 shall be provided and maintained in proper working order.	**NAC 444.154 Rate of flow.** An adequate number of rate of flow indicators and rate of flow controllers having satisfactory range must be installed and properly located, so that the rate of flow either during normal circulation or during the filter backwashing operation can be determined. **NAC 444.484 Circulation and filtration.** 4. A rate-of-flow indicator must be installed according to the manufacturer's instructions.	REWORDED TO MIRROR MAHC
3-501.8 Flow Rates / TURNOVER (A) AQUATIC VENUES constructed or SUBSTANTIALLY ALTERED after the adoption of these Regulations shall be operated at the designed flow rate to provide the required TURNOVER 24-hours per day when open for use except as allowed in Section 2-502.9. (B) AQUATIC VENUES RECIRCULATION SYSTEMS constructed before the adoption of these Regulations shall be operated 24 hours a day in accordance with Section 3-501.1(A).	**NAC 444.152 System for recirculation.** 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.	REWORDED TO MIRROR MAHC
3-502 Filtration		
Filters and filter media shall be listed and labeled to NSF/ANSI 50 by an ANSI-accredited certification organization. Filters shall be operated, backwashed, cleaned and maintained according to the manufacturer's instructions. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-503 Disinfection and pH Control		

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3-503.1 Primary Disinfectants Only the primary disinfectants outlined in this Section shall be acceptable for use in AQUATIC VENUES. (A) CHLORINE (Hypochlorites) (1) Only CHLORINE products that are EPA-REGISTERED for use as sanitizers or disinfectants in AQUATIC VENUES or SPAS in the United States are permitted. (2) Minimum FAC concentrations shall be maintained at all times in all areas as follows: (a) AQUATIC VENUES not using CYA shall maintain a minimum FAC concentration of 1.0 PPM. (b) AQUATIC VENUES using CYA shall maintain a minimum FAC concentration of 2.0 PPM. (c) SPAS shall maintain a minimum FAC concentration of 3.0 PPM. (3) Recirculated AQUATIC FEATURE water lines susceptible to holding stagnant water shall maintain disinfectant throughout the lines as per Section 3-503.1(A)-(B). (4) Maximum FAC concentrations shall not exceed 10.0 PPM at any time the AQUATIC VENUE is open to BATHERS. (B) Bromine (1) Only bromine products that are EPA-REGISTERED for use as sanitizers or disinfectants in AQUATIC VENUES or SPAS in the United States shall be permitted. (2) Minimum bromine concentrations shall be maintained at all times in all areas as follows: (a) All AQUATIC VENUES: 3.0 PPM, and (b) SPAS: 3.0 PPM. (3) Maximum bromine concentrations shall not exceed 8.0 PPM at any time the AQUATIC VENUE is open to BATHERS. (C) Stabilizers (1) The CYA level at all AQUATIC VENUES shall remain at or below 80 PPM not to exceed 100 PPM. (D) Compressed CHLORINE Gas As per Section 2-504.2(K), use of compressed CHLORINE gas shall be prohibited for new construction and after SUBSTANTIAL ALTERATION to existing AQUATIC FACILITIES. (1) Facilities using compressed CHLORINE gas shall provide safety precautions per the following Sub-Sections. (a) The chlorinators and any cylinders containing CHLORINE gas used therewith shall be housed in an ENCLOSURE separated from other EQUIPMENT ROOMS, including the swimming POOL, corridors, dressing rooms and other space with a door so installed as to prevent gas leakage and equipped with an inspection window. (b) The enclosure shall be equipped with an audible alarm and leakage detection kit. (c) A gas mask designed for use in a chlorine atmosphere must be located outside of the enclosure in a closed, unlocked cabinet along with a record book for use and a replacement canister. (d) CHLORINE cylinders shall be secured from falling. (e) Cylinders in use shall be secured on a suitable platform scale and equipped with a wrench or valve handle that can be used to shut off the gas in the event of an emergency. (f) A separate vent opening near the floor to the building exterior shall be provided. (g) An electric motor-driven fan capable of two air changes per hour, shall take suction from near the floor level of the ENCLOSURE and discharge at a suitable point to the exterior above the ground level.	**NAC 444.148 Quality of water.** 3. The equipment must provide water which meets the following standards: (a) The water must be continuously disinfected by a chemical which imparts an easily measured, freely available residual effect. Except as otherwise provided in NAC 444.207, 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. (d) The total alkalinity should be within the range of 80 to 120 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 pool 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.	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS

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(h) The fan switch shall be able to be operated from outside of the ENCLOSURE. (i) Any person who operates such chlorinating equipment shall be trained in its use. (j) Facilities shall stop the use of CHLORINE gas if specific safety equipment and training requirements, along with local code considerations, cannot be met. (E) Salt Electrolytic CHLORINE Generators, Brine Electrolytic CHLORINE or Bromine Generators (1) Only POOL grade salt shall be used. (2) The salt generation generator must maintain CHLORINE and bromine levels within required concentrations as specified in Section 3-503.1(A). The saline content of the POOL water shall be maintained in the required range specified by the manufacturer. (3) Cleaning of electrolytic plates shall be performed as recommended by the manufacturer. (4) Corrosion protection systems shall be maintained in the POOL basin. (F) A facility unable to maintain water with the required disinfectant residual will be required to install equipment for the automated feeding of chemicals.		
3-503.2 Secondary Disinfection Systems (A) UV Light (1) UV systems shall only operate while the RECIRCULATION SYSTEM is operating. (2) UV systems shall be operated and maintained not to exceed the maximum validated flow rate and meet or exceed the minimum validated output intensity needed to achieve the required dose for a 3-log inactivation. (3) UV sensors shall be calibrated at a frequency in accordance with manufacturer recommendations. (4) Records of calibration shall be maintained by the facility. (B) Ozone (1) Ozone systems shall be operated and maintained according to the manufacturer's instructions to maintain the required design performance. (2) Residual ozone concentration in the AQUATIC VENUE water shall remain below 0.1 PPM. (3) A printed standard operating manual shall be provided containing information on the operation and maintenance of the ozone generating equipment, including the responsibilities of workers in an emergency. (4) All employees shall be properly trained in the operation and maintenance of the equipment. (C) Copper/Silver Ions (1) Only those systems that are EPA-REGISTERED for use as sanitizers or disinfectants in AQUATIC VENUES or SPAS in the United States are permitted. (2) Copper and silver concentrations shall not exceed 1.3 PPM for copper and 0.10 PPM for silver for use as disinfectants in AQUATIC VENUES and SPAS in the United States. (3) FAC or bromine levels shall be maintained in accordance with Section 3-503.1. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-503.3 Other Sanitizers, Disinfectants, or Chemicals (A) Other sanitizers, disinfectants, or chemicals used must: (1) Be U.S. EPA-REGISTERED under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and, (2) Not create a hazardous condition or compromise disinfectant efficacy when used with required bromine or CHLORINE concentrations, and (B) Not interfere with water quality measures meeting all criteria set forth in these Regulations. (C) CHLORINE Dioxide	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT

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(1) CHLORINE dioxide added through the recirculation system shall only be used for remediation for water quality issues when the AQUATIC VENUE is closed and BATHERS are not present. (2) Safety training and safety precautions related to use of CHLORINE dioxide shall be in place. (D) Clarifiers, flocculants, and defoamers shall be used per manufacturer's instructions. [NEW]		
3-503.4 PH (A) The PH of the water shall be maintained between 7.2 and 7.8. (B) APPROVED substances for PH adjustment shall include but not be limited to muriatic (hydrochloric) acid, sodium bisulfate, carbon dioxide, sulfuric acid, sodium bicarbonate, and soda ash. (C) A facility unable to maintain water at the required pH, will be required to install equipment for the automated feeding of chemicals.	**NAC 444.148 Quality of water.** 3. The equipment must provide water which meets the following standards: (a) The water must be continuously disinfected by a chemical which imparts an easily measured, freely available residual effect. Except as otherwise provided in NAC 444.207, 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. **NAC 444.182 Disinfectants: Handling; storage; toxicity.** 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.	REWORDED TO MIRROR MAHC
3-503.5 Feed Equipment (A) Any disinfectant and PH control chemicals delivered through an automatic chemical feed system shall meet the following requirements: (1) All chemical feed system components must be dedicated to a single chemical and clearly labeled to prevent the introduction of incompatible chemicals. (2) Chemical feed system components shall be installed and interlocked so it cannot operate when the RECIRCULATION SYSTEM is in low or no flow circumstances as per Section 2-504.2(B). (3) Chemical feed system components shall incorporate failure-proof features so the chemicals cannot feed directly into the AQUATIC VENUE, the venue piping system not associated with the RECIRCULATION SYSTEM, source water supply system, or area within proximity of the AQUATIC VENUE DECK under any type of failure, low flow, or interruption of operation of the equipment to prevent BATHER exposure to high concentrations of AQUATIC VENUE treatment chemicals. (4) All chemical feed equipment shall be maintained in good working condition. (B) Chemical feeders shall be installed such that they are not over a different chemical, stored chemicals, other feeders, or electrical equipment. (C) Chemicals shall be kept dry to avoid clumping and potential feeder plugging for mechanical gate or rotating screw feeders. The feeder mechanism shall be cleaned and	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT

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lubricated to maintain a reliable feed system. (D) Adequate pressure shall be maintained at the venturi INLET to create the vacuum needed to draw the chemical into the RECIRCULATION SYSTEM. (E) Erosion feeders shall only have chemicals added that are approved by the manufacturer. (1) A feeder shall only be opened after the internal pressure is relieved by a bleed valve. (2) Erosion feeders shall be maintained according the manufacturer's instructions. (F) Tubing and connections shall be checked on a daily basis for leaks. (1) All chemical tubing that runs across walkways in non-PATRON areas shall be routed in PVC piping to support the tubing and to prevent leaks. (2) The double containment PVC pipe shall be of sufficient size to allow for easy replacement of tubing. (3) Any necessary turns in the piping shall be designed so as to prevent kinking of the tubing. (G) The Chlorine Institute requirements for safe storage and use of CHLORINE gas shall be followed. (H) Carbon dioxide feed shall be permitted to reduce PH and control total alkalinity. (1) Carbon dioxide feed shall be controlled using a gas regulator. (2) CO_2/O_2 monitor and alarm shall be maintained in working condition. (3) Carbon dioxide is heavier than air, so forced ventilation shall be maintained in the storage room. [NEW]		
3-503.6 Testing for Water Circulation and Quality (A) WATER QUALITY TESTING DEVICES (WQTDs) for the measurement of disinfectant residual, PH, alkalinity, CYA (if used), and temperature, at a minimum, shall be available on site. (B) WQTDs utilizing reagents shall be checked for expiration at every use and the date recorded. (C) WQTDs shall be stored in accordance with manufacturer's instructions. (D) Chemical testing reagents shall be maintained at proper manufacturer specified temperatures. (E) WQTDs that require calibration shall be calibrated in accordance with manufacturer's instructions and the date of calibration recorded. (F) WQTDs unable to measure FAC are prohibited.	**NAC 444.184 Testing equipment.** 1. Every public bathing or swimming facility must have an approved test set for the determination of pH, disinfectant residuals, total alkalinity and, at facilities where chlorinated cyanurates are used, cyanuric acid concentrations. 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.	REWORDED TO MIRROR MAHC; MORE SPECIFIC REQUIREMENTS
3-503.7 AUTOMATED CONTROLLERS and Equipment MONITORING (A) When present an AUTOMATED CONTROLLER capable of measuring the disinfectant residual (FAC or bromine) or surrogate such as ORP shall be used to maintain the disinfectant residual in AQUATIC VENUES as outlined in Section 2-504.3(V). (B) The sample line for all probes shall be upstream from all primary, SECONDARY, AND SUPPLEMENTAL DISINFECTION injection ports or devices. (C) AUTOMATED CONTROLLERS shall be monitored at the start of the operating day to ensure proper functioning. (D) MONITORING shall include activities recommended by manufacturers, including but not limited to alerts and leaks. (E) AUTOMATED CONTROLLERS shall be calibrated per manufacturer directions. (F) When an ozone system is utilized as a SECONDARY DISINFECTION SYSTEM, the system shall be monitored continuously for the following: ORP, the control system indicating O_3 being created, and operational indicators indicating the system is in range. The MONITORING data must be recorded every four hours.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT

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(1) At the time the ozone generating equipment is installed, again after 24 hours of operation, and annually thereafter, the air space within six (6) inches of the AQUATIC VENUE water shall be tested to determine compliance of less than 0.1 PPM gaseous ozone. (2) Results of the test shall be maintained on site for review by the HEALTH AUTHORITY. (G) When a UV system is utilized for SECONDARY DISINFECTION, the system shall be monitored continuously for the following and the data recorded as indicated: flow rate every four hours, intensity every four hours, water temperature daily, set point for intensity daily, and UV lamp on/off cycles recorded weekly with the total cycles/week. In addition the following must be monitored and recorded as indicated: iron, calcium hardness – weekly, UVT analyzer calibration – weekly, calibration intensity monitored annually and recorded at the time of calibration, and the calibration of the flow meter per manufacturer's requirements and recorded the time of calibration. (H) The automated UV shut-down alarm required in Section 2-504.3(F)(7) shall be tested weekly and maintained as needed. [NEW]		
3-504 Water Sample Collection and Testing		
3-504.1 Routine Sample Collection When routine samples are collected from in-line sample ports, the QUALIFIED OPERATOR shall also ensure water samples are acquired from the bulk water of the AQUATIC VENUE at least once per day (A) Water quality data from these AQUATIC VENUE samples shall be compared to data obtained from in-line port samples to assess potential water quality variability in the AQUATIC VENUE. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-504.2 AQUATIC VENUE Water Chemical Balance (A) Total alkalinity shall be maintained in the range of 60 to 180 PPM. (B) The OWNER shall ensure the AQUATIC FACILITY takes action to reduce the level of CHLORAMINES in the water when levels exceed 1.0 PPM. Such actions may include but are not limited to: (1) SUPERCHLORINATION; (2) BREAKPOINT CHLORINATION; (3) Water exchange; or (4) PATRON adherence to appropriate BATHER hygiene practices. (C) Calcium hardness should not exceed 1000 PPM. (D) Algaecides may be used in an AQUATIC VENUE provided: (1) The product is labeled as an algaecide for AQUATIC VENUE or SPA use; (2) The product is used in strict compliance with label instructions; and, (3) The product is registered with the US EPA and applicable state agency. [NEW]	**NAC 444.148 Quality of water.** (d) The total alkalinity should be within the range of 80 to 120 ppm.	REWORDED TO MIRROR MAHC
3-504.3 Source water shall be maintained as outlined in Section 2-901.	**NAC 444.216 Plumbing requirements.** 2. All water provided for drinking fountains, lavatories and showers must be potable and meet the requirements and conform with the standards of the Health Division for drinking water. **NAC 444.148 Quality of water.** 1. Water entering a public bathing or swimming	REWORDED TO MIRROR MAHC

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	facility for the first time must meet the bacteriological standards for potable water 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 pools that depend upon the flow of a stream, lake, well or other source which has been diverted to flow in and out of the pool, at a rate of not less than 1,000 gallons (378.5 liters) per hour for each 20 bathers using the pool during each hour.	
3-504.4 AQUATIC VENUE water shall be chemically balanced. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-504.5 Water Temperature **(A)** Water temperatures shall be considered and planned for based on risk, safety, priority facility usage, and age of participants, while managing water quality concerns. **(B)** The maximum temperature for any AQUATIC VENUE is 104°F.	**NAC 444.234 Temperature.** 1. The maximum recommended temperature in such baths is 104F (40C).	REWORDED TO MIRROR MAHC
3-505 Water Quality Chemical Testing Frequency		
3-505.1 FAC or bromine, and PH shall be tested at all AQUATIC VENUES prior to opening each day or at least once every 24 hours at evenly spaced intervals when the AQUATIC VENUE remains open 24 hours a day. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-505.2 For all AQUATIC VENUES not associated with residential living units, the FAC (or bromine) and PH shall be tested prior to opening and every four (4) hours while accessible to BATHERS. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-505.3 In-line ORP readings, if such systems are installed, shall be recorded at the same time the FAC (or bromine) and PH tests are performed. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-505.4 Total Alkalinity (TA) and combined available chlorine shall be tested weekly at all AQUATIC VENUES. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-505.5 CYA shall be tested monthly at all AQUATIC VENUES utilizing CYA. **(A)** CYA shall be tested 24 hours after the addition of CYA to the AQUATIC VENUE. **(B)** If AQUATIC VENUES utilize stabilized CHLORINE as its primary disinfectant, the operator shall test CYA every week. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-505.6 For heated AQUATIC VENUES, water temperature shall be recorded at the same time the FAC (or bromine) and PH tests are performed. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-505.7 If in-line electrolytic chlorinators are used, salt levels shall be tested at least weekly or per manufacturer's instructions. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-505.8 Copper and silver shall be tested daily at all AQUATIC VENUES utilizing copper/silver systems as a SUPPLEMENTAL DISINFECTION SYSTEM. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT

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3-506 Water Clarity		
3-506.1 The water in an AQUATIC VENUE shall be sufficiently clear such that the main suction outlet pattern is visible while the water is static at all times the AQUATIC VENUE is open or available for use.	**NAC 444.148 Quality of water.** 5. The water must have sufficient clarity at all times so that the pattern of the main drain in any pool 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.	REWORDED TO MIRROR MAHC
3-506.2 This reference point shall be visible at all times at any point on the DECK up to 30 feet away in a direct line of sight from the main drain. For SPAS, this test shall be performed when the water is in a non-turbulent state and bubbles have been allowed to dissipate. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-507 Water Supply and Disposal All provisions for water supply, fill spout, cross-connection control, sanitary waste and pool waste water must meet all criteria outlined in Section 2-9 with the exception of providing a sump pit for pool waste water on aquatic facilities constructed prior to the adoption of these Regulations and Section 2-905.3.	**See section 2-905.3**	**REWORDED FOR LANGUAGE CONSISTENCY**
3-6 Decks and Equipment		
3-601 Spectator Areas		
3-601.1 BACKFLOW prevention devices shall be in good working order, and shall be tested as required by the HEALTH AUTHORITY. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-601.2 Materials / Slip Resistance **(A)** Surfaces shall be clean and in good repair. **(B)** The finish and profile of DECK surfaces shall be maintained to prevent slips and falls. **(C)** Tripping hazards shall be avoided. If tripping hazards are present, they shall be repaired or promptly barricaded to protect PATRONS and employees.	**NAC 444.134 Decks** 4. The deck must have a slip-resistant surface that can be cleaned by hosing and causes no discomfort to bare feet.	REWORDED TO MIRROR MAHC
3-601.3 The PERIMETER DECK shall be maintained clear of obstructions for at least a four (4) foot width around the entire POOL unless otherwise allowed by these Regulations.	**NAC 444.134 Decks.** 1. Except as otherwise provided in this subsection and in NAC 444.196 and 444.1995, a clear, unobstructed deck must be provided around the entire perimeter of a pool. In no case may the width of the deck be less than 4 feet (1.2 meters). A deck may be obstructed for a distance equal to not more than 10 percent of the perimeter of the pool if: (a) The design of the obstruction does not endanger the health or safety of persons using the pool; (b) An unobstructed area of deck not less than 4 feet wide is provided around or through the obstruction not more than 15 feet (4.55 meters) from the edge of the pool; and (c) Written approval for the obstruction is obtained from the health authority before	**REWORDED TO MIRROR MAHC**

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	construction or installation of the obstruction.	
3-602 Starting Blocks		
3-602.1 Starting platforms shall only be used for competitive swimming and training.NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-602.2 Starting platforms shall only be used under the direct supervision of a coach or instructor. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-602.3 Starting platforms shall be removed, if possible, or prohibited from use during all recreational or non-competitive swimming activity by covering platforms with a manufacturer-supplied platform cover or with another means or device that is readily visible and clearly prohibits use. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-603 Lifeguard and Safety Related Equipment		
3-603.1 AQUATIC FACILITIES shall not be open to PATRONS unless the equipment listed under this Section is present and in a safe and working condition. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-603.2 SAFETY Equipment Required at All AQUATIC FACILITIES **(A)** The AQUATIC FACILITY shall have equipment for staff to communicate in cases of emergency. **(1)** The AQUATIC FACILITY or each AQUATIC VENUE, as necessary, shall have a functional telephone or other communication system or device that is hard wired and capable of directly dialing 911 or function as the emergency notification system. **(2)** The telephone or communication system or device shall be conspicuously provided and accessible to AQUATIC VENUE users such that it can be reached immediately. **(3)** Alternate functional systems, devices, or communication processes are allowed with HEALTH AUTHORITY approval in situations when a hardwired telephone is not logistically sound, and an alternate means of communication is available.	**NAC 444.268 Posting information on artificial respiration and emergency services.** Diagrammatic illustrations of artificial respiration procedures must be posted at all public bathing or swimming facilities where they are clearly visible from the nearby deck and protected from the elements. 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. A telephone must be located in the vicinity of the pool enclosure, but outside of the enclosure. 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.	**REWORDED TO MIRROR MAHC**
3-603.3 LIFEGUARD STATIONS shall have an unobstructed view of the entire bottom of the AQUATIC VENUE.	**NAC 444.132 Chairs for lifeguards.** 3. The chairs must be located to provide a clear, unobstructed view of the bottom of the pool in the area of surveillance.	**REWORDED TO MIRROR MAHC**
3-603.4 LIFEGUARD stands shall provide enough height to elevate the LIFEGUARD to an eye level above the heads of the BATHERS; and provide safe access and egress for the LIFEGUARD.	**NAC 444.132 Chairs for lifeguards.** 1. Each pool must have at least one elevated lifeguard chair. This shall be presumed to be adequate for 2,000 square feet (185.8 square meters) of pool surface area with an additional	**REWORDED TO MIRROR MAHC**

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	lifeguard chair being provided for each additional area of 2,000 square feet (185.8 square meters) or major fraction thereof. 2. If a pool is provided with more than one lifeguard chair and the pool width is 40 feet (12.2 meters) or more, chairs must be located on each side of the pool.	
3-603.5 LIFEGUARD Chair and Stand Design **(A)** The chairs/stands must be designed: **(1)** With no sharp edges or protrusions; **(2)** With sturdy, durable, and UV resistant material. **(B)** When a chair or stand is provided, it shall be equipped with overhead protection from or in a location without direct sun exposure or glare to allow for optimal bather surveillance. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-603.6 First Aid Supplies **(A)** The AQUATIC FACILITY with onsite staff shall have designated locations for emergency and first aid equipment. An adequate supply of first aid supplies shall be continuously stocked. **(B)** Signage shall be provided at the AQUATIC FACILITY or each AQUATIC VENUE, as necessary, which clearly identifies the following: **(1)** First aid location(s), and **(2)** Emergency telephone(s) or APPROVED communication system or device. **(3)** A permanent sign providing emergency dialing directions and the AQUATIC FACILITY address shall be posted and maintained at the emergency telephone, system or device. **(4)** A permanent sign shall be conspicuously posted and maintained displaying contact information for emergency personnel and AQUATIC FACILITY management. **(5)** A sign shall be posted stating the following: **(a)** The operating hours of the AQUATIC FACILITY, and **(b)** Unauthorized use of the AQUATIC FACILITY outside of these hours is prohibited.	**NAC 444.266 Lifesaving equipment.** 4. Every public bathing or swimming facility and natural bathing place must be equipped with: (a) A standard first-aid kit, filled, ready for use and readily accessible for emergency use; and (b) Two or more blankets reserved for emergency use. **NAC 444.268 Posting information on artificial respiration and emergency services.** Diagrammatic illustrations of artificial respiration procedures must be posted at all public bathing or swimming facilities where they are clearly visible from the nearby deck and protected from the elements. 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. A telephone must be located in the vicinity of the pool enclosure, but outside of the enclosure. 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.	**REWORDED TO MIRROR MAHC**
3-603.7 Safety Equipment Required at Facilities with Lifeguards **(A)** At least one spinal injury board constructed of material easily SANITIZED/disinfected shall be provided. The board shall be equipped with a head immobilizer and sufficient straps to immobilize a person to the spinal injury board.	**NAC 444.266 Lifesaving equipment.** 1. Not less than one unit of lifesaving equipment must be provided at every public bathing or swimming facility or natural bathing place. One	**REWORDED TO MIRROR MAHC**

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(B) Each LIFEGUARD conducting BATHER surveillance with the responsibility of in-water rescue in less than three (3) feet of water shall have a rescue tube immediately available for use. (C) Each LIFEGUARD conducting BATHER surveillance in a water depth of three (3) feet or greater shall have a rescue tube on his/her person in a rescue ready position. (D) LIFEGUARDS shall wear attire that readily identifies them as members of the AQUATIC FACILITY'S LIFEGUARD staff. (E) A whistle or other signaling device shall be worn by each LIFEGUARD conducting BATHER surveillance for communicating to PATRONS and/or staff. (F) Personal protective devices including a resuscitation mask with one-way valve and non-latex one-use disposable gloves shall be immediately available to all LIFEGUARDS. (G) AQUATIC FACILITIES with one LIFEGUARD shall provide and maintain a U.S. Coast Guard-approved aquatic rescue throwing device. (H) AQUATIC FACILITIES with one LIFEGUARD shall provide and maintain a 12 ft – 16 ft reaching pole.	unit of lifesaving equipment consists of: (a) A rescue tube or a ring buoy with a minimum outside diameter of 20 inches (50 centimeters) to which there must be attached a length of 1/4-inch (0.6-centimeter) rope, not less than 1 1/2 times the maximum width of the pool or swimming area; and (b) A life pole or shepherd's crook type of pole with minimum handle length of 12 feet (3.7 meters). 2. One unit is presumed to be adequate for 2,000 square feet (185.8 square meters) of pool or swimming area, and one additional unit must be provided for each additional 2,000 square feet (185.8 square meters), or major fraction thereof of pool or swimming area. 3. Lifesaving equipment must be mounted in conspicuous places, distributed around the edge of the pool or swimming area, at lifeguard chairs or elsewhere, ready for use, its function plainly marked and kept in repair and ready condition. Bathers or others must not be permitted to tamper with lifesaving equipment, use it for any purpose other than its intended use or remove it from its established location.	
3-603.8 Safety Equipment and Signage Required at Facilities without Lifeguards (A) AQUATIC VENUES whose depth exceeds two (2) feet of standing water shall provide and maintain a U.S. Coast Guard-approved aquatic rescue throwing device, with at least a 1/4 inch thick rope whose length is 50 feet or 1.5 times the width of the POOL, whichever is less. The rescue throwing device shall be located in the immediate vicinity to the AQUATIC VENUE and be visible and accessible to BATHERS. (B) AQUATIC VENUES whose depth exceeds two (2) feet of standing water shall provide and maintain a reaching pole of 12 feet to 16 feet in length, non-telescopic, light in weight, and with a securely attached Shepherd's Crook with an aperture of at least 18 inches. The reaching pole shall be located in the immediate vicinity to the AQUATIC VENUE and be visible and accessible to BATHERS and PATRONS. (C) Cardiopulmonary Resuscitation (CPR) posters that are up to date with the latest CPR programs and protocols shall be posted conspicuously at all times. (D) A sign shall be posted outlining the IMMINENT HEALTH HAZARDS, which require an AQUATIC VENUE or AQUATIC FACILITY closure as defined in these Regulations and a telephone number to report problems to the OWNER/operator. (E) For any AQUATIC VENUE with standing water, a sign shall be posted signifying a LIFEGUARD is not on duty in four (4) inch lettering and that the following rules apply: (1) Persons under the age of 14 cannot be in the AQUATIC VENUE without direct adult supervision meaning children shall be in adult view at all times, and (2) Youth and childcare groups, training activities, lifeguard courses, and swim lessons are not allowed without a LIFEGUARD providing BATHER surveillance.	**NAC 444.266 Lifesaving equipment.** 1. Not less than one unit of lifesaving equipment must be provided at every public bathing or swimming facility or natural bathing place. One unit of lifesaving equipment consists of: (a) A rescue tube or a ring buoy with a minimum outside diameter of 20 inches (50 centimeters) to which there must be attached a length of 1/4-inch (0.6-centimeter) rope, not less than 1 1/2 times the maximum width of the pool or swimming area; and (b) A life pole or shepherd's crook type of pole with minimum handle length of 12 feet (3.7 meters). 2. One unit is presumed to be adequate for 2,000 square feet (185.8 square meters) of pool or swimming area, and one additional unit must be provided for each additional 2,000 square feet (185.8 square meters), or major fraction thereof of pool or swimming area. 3. Lifesaving equipment must be mounted in conspicuous places, distributed around the edge	**REWORDED TO MIRROR MAHC**

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	of the pool or swimming area, at lifeguard chairs or elsewhere, ready for use, its function plainly marked and kept in repair and ready condition. Bathers or others must not be permitted to tamper with lifesaving equipment, use it for any purpose other than its intended use or remove it from its established location. **NAC 444.268 Posting information on artificial respiration and emergency services.** Diagrammatic illustrations of artificial respiration procedures must be posted at all public bathing or swimming facilities where they are clearly visible from the nearby deck and protected from the elements. 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. A telephone must be located in the vicinity of the pool enclosure, but outside of the enclosure. 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. **NAC 444.276 Notices when lifeguards not provided.** If no lifeguard service is provided, a warning sign must be placed in plain view for all bathers and must state "Warning - No Lifeguard on Duty" with clearly legible letters, at least 4 inches (10 centimeters) in height. In addition, the sign must state "Children Under 14 Years Old Should Not Use Facility Without An Adult in Attendance," and "Solo Bathing is Prohibited."	
3-603.9 Spa Specific Signage - the following signs must be posted at all SPAS: **(A)** 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. **(B)** Children 12 years or younger must be supervised by an adult, the maximum recommended exposure time for such children to use the spa is 10 minutes. Posted in four (4) inch letters.	**NAC 444.524 Heater and temperature requirements.** 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	**REWORDED TO MIRROR MAHC**

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	PRESSURE. **NAC 444.526 Safety requirements.** 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.	
3-604 Enclosures		
3-604.1 All required ENCLOSURES shall be maintained to prevent unauthorized entry to the protected space.	**NAC 444.136 Barriers; exclusion of unauthorized persons.** 1. Provision must be made to exclude unauthorized persons from any pool or pool area. A pool must be surrounded by a fence, wall, building or other barrier that completely encloses the pool area and otherwise complies with the requirements of this section. No part of a pool enclosure may be used for common foot traffic.	**REWORDED TO MIRROR MAHC**
3-604.2 All primary public access gates or doors serving as part of an ENCLOSURE shall have functional self-closing and self-latching closures.	**NAC 444.136 Barriers; exclusion of unauthorized persons.** 6. Any gate or door that opens into the pool 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 above the ground. (b) Must self-close and positively self-latch from any open position.	**REWORDED TO MIRROR MAHC**
3-604.3 Gates or doors used solely for after-hours maintenance shall remain locked at all times when not in use by authorized staff. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-7 Chemical Storage and Use		
3-701 Chemical Storage		
3-701.1 Chemical storage and handling shall be in compliance with applicable law.	**NAC 444.182 Disinfectants: Handling; storage; toxicity.** 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 such instructions, as directed by the health authority.	**REWORDED TO MIRROR MAHC**
3-701.2 Storage, handling and use of each chemical shall be in compliance with the manufacturer's SDS and labels. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT

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3-701.3 AQUATIC VENUE chemicals shall be stored to prevent access by unauthorized individuals. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-702 Chemical Handling		
3-702.1 Containers of chemicals shall be labeled, tagged, or marked with the identity of the material and a statement of the hazardous effects of the chemical according to OSHA and/or EPA materials labeling requirements. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-702.2 Chemicals shall be measured using a dedicated measuring device where applicable. These measuring devices shall be clean, dry, and constructed of material compatible with the chemical to be measured to prevent the introduction of incompatible chemicals. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-702.3 Chemical Addition Methods (A) DISINFECTION and pH control chemicals shall be automatically introduced through the RECIRCULATION SYSTEM. (1) Superchlorination or shock chemicals and other chemicals other than DISINFECTION and pH control may be added manually to the AQUATIC VENUE. (2) Chemicals added manually directly into the AQUATIC VENUE shall only be introduced in the absence of BATHERS. (B) Chemicals shall be diluted (or mixed with water) prior to application and as per the manufacturer's directions. (1) Chemicals shall be added to water when diluting as opposed to adding water to a concentrated chemical. (2) Each chemical shall be mixed in a separate, labeled container. (3) Two or more chemicals shall never be mixed in the same dilution water. [NEW]	**NAC 444.182 Disinfectants: Handling; storage; toxicity.** (NRS 439.200, 444.070) 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 superchlorination, superbromination 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 NAC 444.148. 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 such 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.	**REWORDED TO MIRROR MAHC**
3-8 Hygiene Facilities		
3-801 Plumbing Fixture Requirements		
3-801.1 HYGIENE FACILITY fixtures, dressing area fixtures, and furniture shall be cleaned and SANITIZED as often as necessary with an EPA-REGISTERED product to provide a clean and sanitary environment. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-801.2 HYGIENE FACILITY floors, walls, and ceilings shall be kept clean and free of visible mold and mildew. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-801.3 HAND WASH STATIONS shall include the following items: (A) Hand wash sink, (B) Adjacent soap dispenser, (C) Hand drying device or paper towels and dispenser, and	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT

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(D) Trash receptacle. [NEW]		
3-801.4 CLEANSING SHOWERS CLEANSING SHOWERS shall be cleaned and SANITIZED as often as necessary with an EPA-REGISTERED product to provide a clean and sanitary environment. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-801.5 RINSE SHOWERS (A) RINSE SHOWERS shall be cleaned as necessary with an EPA-REGISTERED product to provide a clean and sanitary environment. (B) RINSE SHOWERS shall be easily accessible. (C) Equipment and furniture on the DECK shall not block access to RINSE SHOWERS. (D) Soap dispensers and soap shall be prohibited at RINSE SHOWERS. (E) RINSE SHOWER drains shall discharge to the sanitary sewer according to applicable law. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-801.6 Non-PLUMBING FIXTURE Requirements (A) If paper towels are used for hand drying, a dispenser and paper towels shall be provided for use at HAND WASH STATIONS. (B) Soap dispensers shall be provided at HAND WASH STATIONS and CLEANSING SHOWERS and shall be kept full of liquid or granular soap. Bar soap shall be prohibited. (C) A minimum of one hands-free trash receptacle shall be provided in areas adjacent to hand washing sinks. Trash receptacles shall be emptied daily and more often if necessary to provide a clean and sanitary environment (D) Non-permanent floor coverings shall be removable and maintained in accordance with Section 3-801.1. Wooden racks, duckboards, and wooden mats shall be prohibited on HYGIENE FACILITY and dressing area flooring. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-801.7 Sharps (A) A Biohazard Action Plan shall also be on file as required by local, state or federal regulations and included as part of the AQUATIC FACILITY SAFETY PLAN. (B) Sharps within approved containers shall be disposed of as needed by the AQUATIC FACILITY in accordance with applicable law. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-802 Provision of Suits, Towels, and Shared Equipment		
3-802.1 All towels provided by the AQUATIC FACILITY shall be washed with detergent and bleach in warm water, rinsed, and thoroughly dried at the warmest temperature listed on the fabric label after each use. Non-absorbent, easily cleanable receptacles shall be provided for collection of used suits and towels.	**NAC 444.284 Swimming suits and towels.** 1. Swimming suits and towels furnished by the management, unless sent to a public laundry, must be washed with hot water and soap or detergent, rinsed and thoroughly dried and sterilized by heat each time they are used, or an equivalent, approved process must be used.	**REWORDED TO MIRROR MAHC**
3-802.2 Equipment provided by the AQUATIC FACILITY that comes into contact with BATHER'S eyes, nose, ears, and mouth (including but not limited to snorkels, nose clips, and goggles) shall be cleaned, SANITIZED between uses, and stored in a manner to prevent biological growth. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-802.3 Other shared equipment provided by the AQUATIC FACILITY, including but not limited to fins, kickboards, tubes, lifejackets, and noodles, shall be kept clean and stored in a manner to prevent mold and other biological growth. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-802.4 Shared equipment shall be maintained in good repair. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT

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3-802.5 Used and un-SANITIZED shared equipment shall be kept separate from cleaned and SANITIZED shared equipment.	**NAC 444.284 Swimming suits and towels.** 2. Clean swimming suits and towels must not be permitted to come in contact with unwashed suits and towels or be stored on shelves or in baskets which have been used for storing dirty swimming suits and towels.	**REWORDED TO MIRROR MAHC**
3-802.6 Non-absorbent, easily cleanable receptacles shall be provided for collection of used shared equipment. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-9 Special Use Aquatic Venues and Features		
3-901 Waterslide		
3-901.1 Signage Warning signs shall be posted in accordance with manufacturer's recommendations.	**NAC 444.1974 Water slides: Posting notice of prohibited conduct.** The operator of a water slide shall post one or more warning signs at the entrance to the facility. Each sign must state that the following types of conduct are prohibited within the facility: 1. Running, standing, kneeling, rotating, tumbling or stopping in any flume or tunnel. 2. Horseplay. 3. Diving or flipping while exiting from a flume. 4. Use of the slide while under the influence of alcohol or drugs. 5. Use of a flume by more than one person at a time. 6. Failure to obey the instructions of the top pool supervisor or the lifeguard. 7. Failure to keep hands inside the flume while using the slide. 8. Failure to leave the landing pool promptly after exiting from the slide. 9. The possession of any glass, bottle or food in or near any pool. 10. Entry into an area of grass or other vegetation. 11. The possession of any toy or can. 12. The use of any clothing on the slide other than the usual swimwear. 13. Wearing any comb, bracelet, watch or other jewelry. 14. Failure to shower before using the slide.	**REWORDED TO MIRROR MAHC**
3-902 Wave Pool		
3-902.1 Life Jackets U.S. Coast Guard-approved life jackets that are properly sized and fitted shall be provided free for use by BATHERS who request them.	**NAC 444.1985 Wave pools.** 6. Life jackets must be provided free for use by bathers who request them.	**REWORDED TO MIRROR MAHC**

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3-903 Moveable Floors		
3-903.1 Platforms The use of starting platforms in the area of a MOVEABLE FLOOR shall be prohibited when the water depth is shallower than the minimum required water depth of four (4) feet. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-903.2 Diving Boards When a MOVEABLE FLOOR is installed into a DIVING POOL, diving shall be prohibited unless the DIVING POOL depth meets criteria set in Section 2-602.1. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-904 Bulkheads		
3-904.1 If a BULKHEAD is operated with an open area underneath, no one shall be allowed to swim beneath the BULKHEAD. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-904.2 The BULKHEAD position shall be maintained such that it cannot encroach on any required clearances of other features such as diving boards. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-905 Interactive Water Play Aquatic Venues		
3-905.1 Cracks in the INTERACTIVE WATER PLAY AQUATIC VENUE shall be repaired when they may be a potential for leakage, present a tripping hazard, a potential cause of lacerations, or impact the ability to properly clean and maintain the INTERACTIVE WATER PLAY AQUATIC VENUE area. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-907.2 When cleaning the INTERACTIVE WATER PLAY AQUATIC VENUE contaminants shall be removed or washed to the sanitary sewer. If no sanitary sewer drain is available, then debris shall be directed to the nearest DECK drain or removed in a manner that prevents contaminants from reentering the INTERACTIVE WATER PLAY AQUATIC VENUE. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-906 Spas		
3-906.1 SPA filtration systems shall be operated 24 hours per day except for periods of draining, filling, and maintenance. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-906.2 SPAS shall be drained, cleaned, scrubbed, and water replaced as needed to maintain water quality and water clarity requirements. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-906.3 SPA surfaces, including interior of SKIMMERS, shall be scrubbed or wiped down, and all water drained prior to refill. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-907 Natural Bathing Places		
3-907.1 Warning signs must be posted at each end of the designated bathing area, "No Lifeguard Service Beyond This Point."	**NAC 444.246 Notices and markers.** **3.** Signs must be placed at the ends of each beach to define the area within which bathing is allowed and lifesaving facilities furnished. The sign "No Lifeguard Service Beyond This Point" must be installed at each end of the beach.	**REWORDED TO PROVIDE LANGUAGE CONSISTENCY**
3-907.2 Conveniently located trash receptacles must be provided. These receptacles must be emptied as needed and maintained in a sanitary condition.	**NAC 444.248 Required facilities.** **2.** Conveniently located rubbish containers must be provided. These containers must be emptied whenever necessary and be kept in a sanitary condition.	**REWORDED TO PROVIDE LANGUAGE CONSISTENCY**

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3-907.3 At least one LIFEGUARD and elevated chair shall be provided for every 400 feet of beach.	**NAC 444.250 Lifeguards.** 1. There must be at least one lifeguard on duty for each 400 feet (122 meters) of beach front or major fraction thereof.	**REWORDED TO PROVIDE LANGUAGE CONSISTENCY**
3-907.4 Water samples shall be submitted to a state-licensed laboratory each week. Such samples must meet the following criteria: E. coli at a geometric of 126 CFU per 100 mL and an STV (single test value) of 410 CFU per 100 mL measured using EPA Method 1603, or any other equivalent method that measures E. coli. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-907.5 Failure to meet any of the criteria noted in Section 2-10012.1(B)-(F) shall result in the immediate closure of the NATURAL BATHING PLACE. [NEW]	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
3-908 Isolation and Floatation Units		
3-908.1 The maximum bathing load in a tank is one person.	**NAC 444.207 Isolation and flotation tanks.** 2. The maximum bathing load in a tank is one person.	**REWORDED TO MIRROR MAHC**
3-908.2 The solution in the tank must be disinfected by normal chlorination or bromination at 3.0 to 5.0 PPM.	**NAC 444.207 Isolation and flotation tanks.** 3. The solution in the tank must be disinfected by normal chlorination or bromination at 3.0 to 5.0 ppm.	**REWORDED TO MIRROR MAHC**
3-908.3 The maximum temperature of the solution in the tank must not exceed 97°F.	**NAC 444.207 Isolation and flotation tanks.** 5. The maximum temperature of the solution in the tank must not exceed 95F (35C).	**REWORDED TO MIRROR MAHC**
3-908.4 Each room must have the following signs provided: **(A)** Maximum water depth. **(B)** BATHER behavior. **(C)** Location of the emergency phone and emergency telephone number(s). **(D)** Diagrammatic CPR instructions.	**NAC 444.207 Isolation and flotation tanks.** 4. Notices must be posted in the vicinity of the tank in the manner and with the information required by NAC 444.530.	**REWORDED TO MIRROR MAHC**
3-908.5 The QUALIFIED OPERATOR information must be posted in a conspicuous location within the AQUATIC FACILITY.	**REGULATIONS Governing the Certification ...in Clark County** 7.5 The pool permit holder shall promptly post in a conspicuous place at each pool location serviced by a pool operator a legible sign which identifies the pool operator, including name, phone number, and the operator's certificate number issued by the enforcing agency.	**REWORDED TO MIRROR MAHC**
SECTION 4 POLICIES AND MANAGMENT		
4-1 Qualified Operator Requirement The provisions of this Section shall apply to all AQUATIC FACILITIES covered by these Regulations regardless of when constructed, unless otherwise noted. Employees assigned to roles which have the potential for an occupational exposure to bloodborne pathogens, pathogens that cause RWIs, or other pathogens shall be trained to recognize and respond to body fluid (blood, feces, vomit) releases in and around the AQUATIC VENUE area.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT

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4-101 Qualified Operator Qualification, Certification, and Registration		
4-101.1 Operator Qualifications **(A)** A QUALIFIED OPERATOR of an AQUATIC FACILITY shall have completed a training course that is recognized by the HEALTH AUTHORITY and maintain current certification as required by the HEALTH AUTHORITY. **(B)** A QUALIFIED OPERATOR shall have a current certificate or written documentation acceptable to the HEALTH AUTHORITY showing completion of a training course. **(1)** Originals or copies of such certificate or documentation shall be available on site for inspection by the HEALTH AUTHORITY for each QUALIFIED OPERATOR employed at or contracted by the site, as specified in these Regulations. **(2)** Originals shall be made available upon request by the HEALTH AUTHORITY.	**REGULATIONS Governing the Certification …in Clark County** **Certification of Companies, Technicians, and Technician Apprentices** 2.1 No Swimming Pool Service Company, technician, or technician apprentice shall engage in providing pool services at a public pool without first having obtained a certificate issued by the enforcing agency. 2.1.1 The certificate of each Swimming Pool Service Company, technician, and technician apprentice shall expire twenty-four (24) months from the date of issuance. 2.1.2 An applicant for a certification and an applicant for renewal of a certificate shall pay the fee indicated on the appropriate fee schedule established by the enforcing agency. 2.1.3 To allow an initial grace period for the filing of applications and issuance of certificates, the foregoing prohibition shall not be operative until the 30th day following the effective date of these regulations. If the application for certification or renewal is not made within 30 days after the effective date of these regulations or expiration of the certificate, an applicant for certification and an applicant for renewal shall also pay an additional fee equal to 100% of the prescribed application fee. 2.2 Subject to the exception listed in 2.2.1, no employee or owner of a swimming pool service company shall provide pool services at a public pool without certification from the enforcing agency as a swimming pool service technician, or swimming pool service technician apprentice. An examination administered by the enforcing agency must be taken and passed within thirty (30) days from the date of application. 2.2.1 A licensed contractor or qualified member of a trade union or trade organization may perform pool services at a public pool within the scope of the licensed contractor's or trade union member's qualifications.	**REWORDED TO MIRROR MAHC**
4-101.2 Operator Registration **(A)** A QUALIFIED OPERATOR shall register with the HEALTH AUTHORITY once a certification is obtained and prior to beginning work at any AQUATIC FACILITY or with any POOL COMPANY.	**REGULATIONS Governing the Certification …in Clark County** **Current Proof of Certification**	**REWORDED TO MIRROR MAHC**

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(B) All QUALIFIED OPERATORS currently registered with the HEALTH AUTHORITY shall obtain proof of national certification from a recognized testing entity at the time of their registration renewal within three years from the adoption of these Regulations. Registrations will expire in conjunction with the national certification date and must be renewed prior to expiration. (C) Individuals not properly certified or registered may not perform service at a permitted AQUATIC FACILITY. All services provided must be in accordance with these Regulations. (D) The QUALIFIED OPERATOR is responsible for maintaining the AQUATIC VENUE in accordance with these Regulations. If a defect or deficiency is discovered at an AQUATIC VENUE that presents a risk to PATRONS, it is the QUALIFIED OPERATOR's responsibility to close the AQUATIC VENUE until the required repairs have been made.	10.1 All persons providing pool services at a public pool shall carry current proof of certification while providing pool services and shall show such proof of certification to any interested person. 10.2 Current proof of certification shall consist of an unaltered and unexpired photo identification card issued by the enforcing agency which has the person's name, signature, and type of certification, certificate number, and expiration date.	
4-101.3 Registration of Pool Companies (A) All pool companies who provide service to permitted AQUATIC VENUES must be registered with the HEALTH AUTHORITY and provide a current list of all registered person in their employ within 30 days of any changes in personnel. Registrations will expire two years after the date of issuance and must be renewed prior to expiration. (B) The AQUATIC FACILITY shall promptly post in a conspicuous location within each ENCLOSURE at an AQUATIC FACILITY where services are provided by a POOL COMPANY, a legible sign which identifies the company name, phone number, and the company certificate number issued by the HEALTH AUTHORITY. (C) The AQUATIC FACILITY shall promptly remove the POOL COMPANY sign when the POOL COMPANY is no longer providing services. (D) The AQUATIC FACILITY shall ensure each POOL COMPANY has current proof of certification while providing POOL services. Proof of certification shall consist of an unaltered and unexpired photo identification card issued by the HEALTH AUTHORITY which has the: (1) Person's name, (2) Type of certification, (3) Certificate number, and (4) Expiration date.	**REGULATIONS Governing the Certification ...in Clark County** **Requirements for Swimming Pool Service Company Certification** 3.1 The enforcing agency shall issue a certificate if the company meets the following requirements: 3.1.1 The company does not permit any person acting on behalf of the company to perform pool services at a public pool who does not possess valid certification as a swimming pool service technician or swimming pool service technician apprentice or who has not filed an application with the enforcing agency for certification as a swimming pool service technician or swimming pool service technician apprentice. 3.1.2 The company's application is accompanied by proof that the owner or at least one person employed by the company has been certified as a swimming pool service technician by the enforcing agency pursuant to these regulations. **Personnel Change** Each company subject to the requirements of these regulations shall notify the enforcing agency in writing of any changes in the list of persons who perform pool services at a public pool on behalf of the company, including their certification status, within five days of any such change.	**REWORDED TO MIRROR MAHC**
4-101.4 Required Servicing Equipment The following list of equipment must be available for use by each QUALIFIED OPERATOR when providing service to a permitted AQUATIC VENUE: (A) Water Quality Testing Devices (WQTDs) which can reliably measure: (1) Disinfectant residual, (2) pH, (3) Total alkalinity, (4) Acid demand, and (5) Cyanuric acid concentration;	**REGULATIONS Governing the Certification ...in Clark County** 3.1.3 The company has available for the use of each person who will perform pool services at a public pool the following items: 3.1.3.1 Test kits which can reliably measure disinfectant residual, pH, total alkalinity, calcium hardness, acid demand, and cyanuric acid concentration;	**REWORDED TO MIRROR MAHC**

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(B) A brush suitable for cleaning the bottom of the POOL; (C) A thermometer; (D) A vacuum cleaner, complete with attachments; (E) A leaf SKIMMER; (F) Hand tools and lubricants necessary for servicing mechanical equipment incident to swimming POOLS and their appurtenances; (G) Materials and chemicals necessary for disinfecting POOL water and adjusting total alkalinity and PH; and (H) Any other equipment deemed necessary by the HEALTH AUTHORITY.	3.1.3.2 A brush suitable for cleaning the bottom of the pool; 3.1.3.3 A thermometer; 3.1.3.4 A vacuum cleaner, complete with attachments; 3.1.3.5 A leaf skimmer; 3.1.3.6 Hand tools and lubricants necessary for servicing mechanical equipment incident to swimming pools and their appurtenances; 3.1.3.7 Materials and chemicals necessary for disinfecting pool water and adjusting total alkalinity and pH; and 3.1.3.8 Any other equipment deemed necessary by the enforcing agency.	
4-101.5 Contractors A licensed contractor may perform work at an AQUATIC FACILITY within the scope of the licensed contractor's qualifications.	**REGULATIONS Governing the Certification ...in Clark County** **Certification of Companies, Technicians, and Technician Apprentices** 2.2.1 A licensed contractor or qualified member of a trade union or trade organization may perform pool services at a public pool within the scope of the licensed contractor's or trade union member's qualifications.	**REWORDED TO MIRROR MAHC**
4-101.6 Qualified Operator Training Courses must be in accordance with the criteria outlined in the most current MAHC published by the CDC.		**REPLACES EXISTING TESTING REQUIREMENTS**
4-2 Lifeguard Training		
4-201 Lifeguard and Attendant Qualifications		
4-201.1 A LIFEGUARD shall: (A) Have successfully completed a recognized LIFEGUARD training course offered by a recognized training agency; (B) Possess a current certificate for such training; (C) Have met all pre-service requirements; and (D) Participate in continuing in-service training requirements of the AQUATIC FACILITY.	**NAC 444.274 Qualifications, duties and identification of lifeguards.** (NRS 439.200, 444.070, 444.115) 1. Lifeguards at a public bathing or swimming facility must have satisfactorily completed a Red Cross Advanced Lifesaving Course or the equivalent.	**REWORDED TO MIRROR MAHC**
4-201.2 Lifeguard Training Courses must be in accordance with the criteria outlined in the most current MAHC published by the CDC.	**NAC 444.274 Qualifications, duties and identification of lifeguards.** (NRS 439.200, 444.070, 444.115) 1. Lifeguards at a public bathing or swimming facility must have satisfactorily completed a Red Cross Advanced Lifesaving Course or the equivalent.	**REWORDED TO PROVIDE LANGUAGE CONSISTENCY**
4-201.3 An ATTENDANT shall: (A) Possess a current certification for CPR and First Aid; and	**NAC 444.1944 Qualifications of attendants.** (NRS 439.200, 444.070, 444.115) Except as	**REWORDED TO PROVIDE**

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(B) Be trained by the employer to identify and correct safety hazards specific to the assigned attraction.	otherwise provided in NAC 444.274, each attendant employed at a water recreation attraction must be: 1. Certified by the Red Cross or an equivalent organization in first aid and cardiopulmonary resuscitation; and 2. Otherwise trained to deal with safety hazards related to the particular attraction at which the attendant is employed.	**LANGUAGE CONSISTENCY**
4-202 Lifeguard Supervisor Training		
4-202.1 LIFEGUARD SUPERVISOR Candidate Prerequisites LIFEGUARD SUPERVISOR candidate prerequisites shall include but not be limited to: (A) Current LIFEGUARD certification; (B) Having a current LIFEGUARD SUPERVISOR Certification; and (C) Ability to effectively communicate verbally in English.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**NEW REQUIREMENT**
4-3 Facility Staffing		
4-301 Qualified Operator Requirements and Availability		
4-301.1 All AQUATIC VENUES must have a QUALIFIED OPERATOR contracted or employed to monitor and maintain the AQUATIC VENUE whenever the facility is operating.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
4-301.2 The AQUATIC FACILITY'S QUALIFIED OPERATOR must be available to respond to an emergency or IMMANENT HEALTH HAZARD within two hours.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
4-301.3 QUALIFIED OPERATORS SHALL MONITOR THE POOL WEEKLY during the off season, a minimum of three (3) times per week during the peak season, or more as necessary to maintain compliance with these Regulations. (A) Weekly visits shall be documented and be available at the AQUATIC FACILITY for review by the HEALTH AUTHORITY. (B) The written documentation shall indicate the checking, MONITORING, and testing required in these Regulations. (C) The written documentation shall indicate what corrective actions, if any, were taken by the contracted off-site QUALIFIED OPERATOR during the scheduled visits or assistance requests. (D) All AQUATIC FACILITIES without a full time on-site QUALIFIED OPERATOR shall have a designated on-site RESPONSIBLE PERSON. (E) The designated on-site RESPONSIBLE PERSON shall: (1) Be capable of testing and recording the water quality parameters required by these Regulations; (2) Be capable of properly closing an AQUATIC VENUE in accordance with these Regulations; (3) Know when the AQUATIC FACILITY or individual AQUATIC VENUE should be closed; and (4) Know how and when to contact the contracted off-site QUALIFIED OPERATOR. (5) Not make adjustments or perform any maintenance at the AQUATIC VENUE.	**NAC 444.262 Supervision and maintenance of facilities.** 2. Every public bathing or swimming facility must be maintained under the supervision of a qualified operator who is responsible for the sanitation and safety of the facility and for the maintenance of its equipment and records. 3. The operator must demonstrate to the health authority that he or she 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. **NAC 444.264 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 by the management and kept at all times available to the health authority. 2. The operator shall initial the record and the record must include, as appropriate for the facility or bathing place:	**REWORDED TO MIRROR MAHC**

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	(a) The daily attendance; (b) The amounts of various chemicals used daily; (c) The approximate amount of fresh water added daily; (d) The daily water temperature; (e) The results of chemical and bacteriological tests; (f) The time and date of emptying and cleaning any pool or backwashing filters; (g) Recirculation operating time; (h) The names of all attendants; and (i) Any other information which the health authority may require from time to time.	
4-302 Aquatic Facilities Requiring Lifeguards		
4-302.1 All AQUATIC VENUES with standing water and any of the following conditions listed in this Section shall be required to have a LIFEGUARD(s) conducting BATHER surveillance at all times the AQUATIC VENUE is open. **(A)** A LIFEGUARD shall be required for any of the following conditions: **(1)** Any POOL that allows unsupervised children under the age of 14 years; **(2)** Any POOL while it is being used for the recreation of youth groups, including but not limited to childcare usage or school groups; **(3)** Any POOL while it is being used for group training including but not limited to competitive swimming and/or sports, LIFEGUARD training, exercise programs, and swimming lessons; **(4)** Any POOL with a surface area of at least 2000 square feet; **(5)** Any POOL ENCLOSURE with a cumulative unsupervised POOL surface area of 4000 square feet or more; **(6)** Any POOL with an induced current or wave action including but not limited to WAVE POOLS and LAZY RIVERS; **(7)** WATERSLIDE LANDING POOLS; **(8)** Any POOL in which BATHERS enter the water from any height above the DECK including but not limited to diving boards, DROP SLIDES, starting platforms, and/or climbing walls; **(9)** Any POOL that charges an admission fee or where a rental fee includes the use of the POOL; or **(10)** Any POOL not associated with multiple living or lodging units.	**NAC 444.270 Presence of lifeguards.** 1. Except as otherwise provided in subsection 2, any public bathing or swimming facility, except an isolation and flotation tank, spray pool, or a mineral bath, therapeutic pool or similar facility, must have a lifeguard on duty when the facility is open for use unless it is a swimming pool and all of the following conditions are met: (a) The pool is 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. (b) The pool has a surface area of less than 2,000 square feet (185.8 square meters). (c) There is no fee charged, whether direct or indirect, for the use of the pool. (d) The use of the pool is limited to the registered guests, tenants or residents of the place of lodging or facility containing multiple dwellings and their guests. 2. Except as otherwise provided in this subsection, lifeguards are not required for a swimming pool that is not open to the general public and is owned jointly by all the residents of a development or by a homeowner's association in which all of the members are residents. The owners of such a pool shall submit to the health authority written procedures for the supervision of bathers. The health authority must approve the procedures in writing before an operating permit for the pool may be issued. A lifeguard must be on duty if the number of people in such a pool	**REWORDED TO MIRROR MAHC**

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	exceeds 80 percent of the maximum number of people allowed in the pool.	
4-303 Safety Plan		
4-303.1 All AQUATIC FACILITIES shall create and implement a SAFETY PLAN to include, but not be limited to the following elements: (A) Staffing Plan, (B) EMERGENCY ACTION PLAN (EAP), (C) Biohazard action plan, (D) Pre-Service Training Plan, and (E) In-service Training Plan.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
4-303.2 When LIFEGUARDS are required, a Lifeguard Staffing Plan shall be submitted to the HEALTH AUTHORITY for approval prior to opening. The plan shall include diagrammed zones of BATHER surveillance for each AQUATIC VENUE such that: (A) At least one LIFEGUARD shall be required for every 2000 square feet or major fraction thereof, unless an independent lifeguard auditing entity provides documentation supporting a reduced number of LIFEGUARDS; (B) The LIFEGUARD is capable of viewing the entire area of the assigned zone of BATHER surveillance; (C) The LIFEGUARD is able to reach the furthest extent of the assigned zone of BATHER surveillance within 20 seconds; (D) Identify whether the LIFEGUARD is in an elevated stand, walking, in-water and/or other APPROVED position; (E) Additional responsibilities for each zone as identified; and (F) All areas of each AQUATIC VENUE are assigned a zone of BATHER surveillance. (G) Any modifications to the APPROVED LIFEGUARD plan must be submitted and APPROVED by the HEALTH AUTHORITY prior to implementation.	**NAC 444.272 Number of lifeguards required.** If lifeguard service is provided at a public bathing or swimming facility, the number of lifeguards must be adequate to maintain continuous surveillance over the bathers. At no time may there be fewer lifeguards than guard stations if there are more than 75 persons bathing or swimming at the facility. **NAC 444.132 Chairs for lifeguards.** 1. Each pool must have at least one elevated lifeguard chair. This shall be presumed to be adequate for 2,000 square feet (185.8 square meters) of pool surface area with an additional lifeguard chair being provided for each additional area of 2,000 square feet (185.8 square meters) or major fraction thereof. 2. If a pool is provided with more than one lifeguard chair and the pool width is 40 feet (12.2 meters) or more, chairs must be located on each side of the pool. 3. The chairs must be located to provide a clear, unobstructed view of the bottom of the pool in the area of surveillance.	**REWORDED TO MIRROR MAHC**
4-303.3 The Lifeguard Staffing Plan shall include the following: (A) Identification of all zones of BATHER surveillance at the AQUATIC FACILITY; (B) Description of methods used for maintaining coverage of the zone of BATHER surveillance during LIFEGUARD rotation; and (C) Staffing rotation schedule which provides an alternation of tasks such that no LIFEGUARD conducts BATHER surveillance activities for more than 60 continuous minutes. (1) Alternation of tasks includes a period of non-PATRON surveillance activity such as taking a break, conducting maintenance, station rotation or conducting ride dispatch.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
4-303.4 The Lifeguard Staffing Plan shall include LIFEGUARD supervision protocols to achieve the requirements of Section 4-304.3.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
4-303.5 LIFEGUARDS shall be trained on and receive a copy of the EAP that is posted and always available at the AQUATIC FACILITY, as well as the following policies and procedures: (A) Zone of BATHER Surveillance Plan,	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT

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(B) Rotation Plan, (C) Minimum Staffing Plan, and (D) Rescue/First Aid Response plan.		
4-303.6 The RESPONSIBLE PERSON(s) with CPR/AED and first aid training shall present unexpired certificate(s) maintained on site and available for review at the time of inspection.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
4-303.7 Any modifications to the APPROVED Lifeguard Staffing Plan must be submitted and APPROVED by the HEALTH AUTHORITY prior to implementation.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
4-304 Staff Management		
4-304.1 Prior to use of any AQUATIC VENUE, the AQUATIC FACILITY shall provide staff required per the provisions of the SAFETY PLAN as stated in Section 4-303.1.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
4-304.2 RESPONSIBLE PERSON duties shall include but not be limited to: (A) Enforcing the AQUATIC FACILITY rules and regulations by interfacing with PATRONS; (B) Respond to reported emergencies; (C) Identify health and safety hazards and take action to mitigate or avoid the hazard; (D) Know where the PPE is located and use it when required; and (E) Interface with the HEALTH AUTHORITY related to the requirements of these Regulations.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
4-304.3 Lifeguard Staff (A) Where LIFEGUARDS are used, the AQUATIC FACILITY shall provide, prior to opening the AQUATIC FACILITY to the public, the minimum number of LIFEGUARDS and staff required per the provisions of the SAFETY PLAN such that: (1) All zones of BATHER surveillance are staffed during operation; (2) Zones of BATHER surveillance for individual AQUATIC VENUES not open for use, must also be staffed unless an effective means is provided to restrict and monitor access to the AQUATIC VENUE; (3) Rotations can be conducted while all zones are staffed; (4) LIFEGUARD SUPERVISOR is present; and (5) Additional PERSON(s) to rapidly respond to an emergency to help the initial rescuer are present. (B) LIFEGUARD responsibilities shall include but not be limited to: (1) Monitor BATHERS within the zone of BATHER surveillance responsibility; (2) Enforce facility rules; (3) Respond to emergencies including water rescue, CPR, AED use, and First Aid; (4) Identify health and safety hazards and take action to mitigate or avoid the hazard; (5) Maintain skills at a test-ready proficiency level; (6) Wear the identifying uniform; (7) If needed for effective BATHER surveillance, wear corrective eyewear and/or wear polarized sunglasses; (8) Know where PPE is located and use it when required. (C) LIFEGUARDS assigned responsibilities for BATHER surveillance shall not be assigned other tasks that intrude on BATHER surveillance. (D) While conducting BATHER surveillance, LIFEGUARDS shall not engage in social conversations or have on their person or LIFEGUARD STATION cellular telephones, texting devices, music players, or other similar non-emergency electronic devices.	**NAC 444.274 Qualifications, duties and identification of lifeguards.** 2. Lifeguards must be in full charge and must have the authority to enforce all rules and regulations pertaining to sanitation and safety. 3. Lifeguards on duty must not be subject to duties which will interfere with their supervision of bathers. 4. Lifeguards shall wear distinguishing suits or emblems, so that they may be easily identified by persons using the facility.	**REWORDED TO MIRROR MAHC**
4-304.4 ATTENDANT Staff (A) ATTENDANTS are required at each entry and exit point of WATERSLIDES or DROP SLIDES in	**NAC 444.1946 Plan for attendants.** 1. The operator of each water recreation attraction	

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sufficient numbers to ensure proper dispatching and surveillance of riders. (B) Attendants must have a method of communication between the entry attendant and the runout attendant.	shall establish a plan for attendants at the attraction and shall submit the plan to the health authority for review and approval. 2. The plan for attendants must: (a) Set forth in detail the manner in which lifeguards and other attendants are to be stationed; (b) Describe training and emergency procedures; (c) Include provisions for back-up attendants in the event of a multiple rescue; and (d) Include any other provisions necessitated by pool depth, wave action, line of sight, bather loads or other special conditions affecting the safety of bathers. 3. Any significant change in the plan for attendants must be submitted to the health authority for review and approval before it is put into effect. **NAC 444.1976 Water slides: Precautions for safety.** 1. At all times while a water slide is open for use, an attendant must be on duty at each splash pool or slide runout. The attendant shall serve as the safety director of the slide. In that capacity, he or she shall control crowds, keep bathers moving through the pool or runout in an orderly fashion, and control any unsafe behavior in the lower flumes, in the pool or runout, or on the decks near the base of the slide. 2. At all times while the slide is open for use, an attendant must be on duty at each entrance to a flume. The attendant shall control bathers near the entrance, regulate the departure of each bather down the slide and control any unsafe behavior in the upper flumes. 3. Radio communication between the flume entry attendant and the splash pool or slide runout attendant must be provided. 4. Each water slide must have a means to allow the flume entry attendant to monitor the slide exit.	
4-304.5 LIFEGUARD SUPERVISOR Staff (A) AQUATIC FACILITIES that are required to have two or more LIFEGUARDS per the Lifeguard Staffing Plan's zone of BATHER surveillance responsibility in Section 4-303.2 shall have at least one person located at the AQUATIC FACILITY during operation designated as the LIFEGUARD SUPERVISOR who meets the requirement of Section 4-202. (1) One of the LIFEGUARDS may be designated as the LIFEGUARD SUPERVISOR in addition to fulfilling the duties of LIFEGUARD.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**REWORDED TO PROVIDE LANGUAGE CONSISTENCY**

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(B) LIFEGUARD SUPERVISOR duties shall not interfere with the primary duty of BATHER surveillance. (C) LIFEGUARD SUPERVISOR responsibilities shall include but not be limited to: (1) Monitor performance of LIFEGUARDS in their zone of BATHER surveillance responsibility; (2) Ensure the rotation is conducted in accordance with the Lifeguard Staffing Plan; (3) Coordinate staff response and BATHER care during an emergency; (4) Identify health and safety hazards and communicate to staff and management to mitigate or avoid the hazard; and (5) Ensure the required equipment per Section 3-603 is in place and in good condition.		
4-304.6 Emergency Action and Communications Plans (A) AQUATIC FACILITIES with required LIFEGUARD staff shall create and maintain an operating procedure manual containing information on the emergency response and communications plan including an EAP, Facility Evacuation Plan, and Inclement Weather Plan. (B) A written EAP shall be developed, maintained, and updated as necessary for the AQUATIC FACILITY. (C) The written EAP shall be kept at the AQUATIC FACILITY and available for emergency personnel and/or the HEALTH AUTHORITY upon request. (D) The EAP shall include at a minimum: (1) A diagram of the AQUATIC FACILITY; (2) A list of emergency telephone numbers; (3) The location of first aid kit and other rescue equipment (bag valve mask, AED, if provided, backboard, etc.); (4) An emergency response plan for accidental chemical release; and (5) A fecal/vomit/blood CONTAMINATION RESPONSE PLAN as outlined in Section 4-501. (E) A written Facility Evacuation Plan shall be developed and maintained for the AQUATIC FACILITY. This plan shall include, at a minimum: (1) Actions to be taken in cases of drowning, serious illness or injury, chemical handling accidents, weather emergencies, and other serious incidents; and (2) Defined roles and responsibilities for all staff. (F) A communication plan shall exist to facilitate activation of internal emergency response centers and/or community 911/EMS as necessary. (G) The AQUATIC FACILITY shall have a contingency/response plan for localized weather events that may affect their operation (i.e., lightning, high winds, etc.).	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
4-304.7 Remote MONITORING Systems (A) Lifeguard-based remote safety MONITORING systems shall not replace the need for LIFEGUARDS. Remote safety MONITORING systems may be used to aid the operation but not as a substitute for LIFEGUARDS or ATTENDANTS when critical areas such as blind spots in an AQUATIC VENUE or area of a SLIDE are visually obstructed or otherwise cannot be viewed by a LIFEGUARD or ATTENDANT. (B) QUALIFIED OPERATOR-based remote water quality MONITORING systems shall not be a substitute for manual water quality testing of the AQUATIC VENUE. (C) When LIFEGUARD or QUALIFIED OPERATOR-based remote MONITORING systems are used, AQUATIC FACILITY staff shall be trained on their use, limitations, and communication and response protocols for communications with the MONITORING group.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
4-304.8 Employee Illness and Injury Policy (A) LIFEGUARD SUPERVISORS shall not permit employees who are ill with diarrhea to enter the	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT

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water or perform in a LIFEGUARD role. (B) LIFEGUARD SUPERVISORS shall not permit employees with open wounds in the water or in a LIFEGUARD role unless they have healthcare provider approval or wear a waterproof, occlusive bandage to cover the wound.		
4-4 Facility Management		
4-401 Operations		
4-401.1 Operations Manual (A) Each AQUATIC FACILITY shall develop an operations manual to keep at the AQUATIC FACILITY in either a printed or electronic format that is readily available for review during inspection. (B) The manual shall at minimum include, but not be limited to, the following items: (1) AQUATIC VENUE and AQUATIC FEATURE description(s) and locations; (2) Facility communication; (3) List of chemicals and system information; (4) Fecal/vomit and body fluid contamination response protocols; (5) Preventive maintenance plan; and (6) Any other standard operation and maintenance policies and instructions or applicable information for each AQUATIC VENUE and AQUATIC FEATURE at the facility.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
4-401.2 Operation Records (A) AQUATIC FACILITIES shall keep records pertaining to the operation, maintenance, and management of the AQUATIC FACILITY. AQUATIC FACILITY records shall be: (1) Kept for a minimum of three years, and (2) Available upon request by the HEALTH AUTHORITY.	**NAC 444.264 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 by the management and kept at all times available to the health authority. 2. The operator shall initial the record and the record must include, as appropriate for the facility or bathing place: (a) The daily attendance; (b) The amounts of various chemicals used daily; (c) The approximate amount of fresh water added daily; (d) The daily water temperature; (e) The results of chemical and bacteriological tests; (f) The time and date of emptying and cleaning any pool or backwashing filters; (g) Recirculation operating time; (h) The names of all attendants; and (i) Any other information which the health authority may require from time to time. **NAC 444.522 Records.** 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.	**REWORDED TO MIRROR MAHC**

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	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.	
4-401.3 Safety and Maintenance Inspection and Recordkeeping **(A)** The QUALIFIED OPERATOR or RESPONSIBLE PERSON shall ensure a daily AQUATIC FACILITY preventive maintenance inspection is done before opening which includes: **(1)** Walkways/DECK and exits are clear, clean, free of debris; **(2)** Drain covers, vacuum fitting covers, SKIMMER equalizer covers, and any other suction outlet covers are in place, secure, and unbroken; **(3)** SKIMMER baskets, weirs, lids, flow adjusters, and suction outlets are free of any blockage; **(4)** INLET and return covers and any other fittings are in place, secure, and unbroken; **(5)** Safety warning signs and other signage are in place and in good repair; **(6)** Safety equipment required by these Regulations are in place and in good repair, including emergency instructions and phone numbers; **(7)** Entrapment prevention systems are operational; **(8)** Recirculation, DISINFECTION systems, controller(s), and probes are operating as required; **(9)** SECONDARY and/or SUPPLEMENTAL DISINFECTION SYSTEMS are operating as required; **(10)** Underwater lights and other lighting are intact with no exposed wires or water in lights; **(11)** Slime and biofilm has been removed from accessible surfaces of AQUATIC VENUES, SLIDES, and other AQUATIC FEATURES; **(12)** Doors to nonpublic areas *(CHEMICAL STORAGE SPACES, offices, etc.)* are locked; **(13)** First aid supplies are stocked; **(14)** Emergency communication equipment and systems are operational; **(15)** Fecal/vomit/blood incident contamination response protocols, materials, and equipment are available; **(16)** Water features and amenities are functioning in accordance with the manufacturer's recommendations; **(17)** ENCLOSURES, gates, and self-latching or other locks are tested, intact, and functioning properly, and ENCLOSURES do not have nearby furniture to encourage climbing; **(18)** Drinking fountains are clean and in functional condition; **(19)** Electrical devices are in good working condition and meet NEC requirements; **(20)** Alarms, if required, are tested and functioning properly; and **(21)** Assessing water clarity such that the bottom and objects in the POOL are clearly visible. **(22)** Monthly tests of GFCI devices and emergency phone, **(23)** Inspections every six months of bonding conductors, where accessible.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
4-401.4 Water MONITORING and Testing Records MONITORING and testing records shall include the following:	**NAC 444.264 Records.** 1. A written record of all data pertaining to the	**REWORDED TO MIRROR MAHC**

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(A) pH level; (B) Disinfectant residuals; (C) Operating pressures of water recirculation pumps and filters or the corresponding flow rate from flow meter readings; (D) Cyanuric acid levels, if used; (E) Maintenance and malfunctioning of equipment, including dates and time of all equipment calibration including WQTDs; (F) If heated, AQUATIC VENUE water temperature; (G) The time of filter backwash or cleaning; (H) Total alkalinity; (I) Microbiological testing, if applicable, dates/times samples were taken and results, (J) Any equipment failure, power outage, or error resulting in the interruption of the circulation, filtration, or DISINFECTION systems for more than one hour; (K) The daily attendance at the AQUATIC FACILITY; (1) in POOLS where attendance is not ordinarily recorded, a guest sign in book can be used to track attendance; and (L) SECONDARY DISINFECTION SYSTEMS when required.	operation and sanitation of each public bathing or swimming facility and natural bathing place must be maintained by the management and kept at all times available to the health authority. 2. The operator shall initial the record and the record must include, as appropriate for the facility or bathing place: (a) The daily attendance; (b) The amounts of various chemicals used daily; (c) The approximate amount of fresh water added daily; (d) The daily water temperature; (e) The results of chemical and bacteriological tests; (f) The time and date of emptying and cleaning any pool or backwashing filters; (g) Recirculation operating time; (h) The names of all attendants; and (i) Any other information which the health authority may require from time to time. **NAC 444.522 Records.** 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.	
4-401.5 Staff Certifications on File Copies of all required LIFEGUARD, LIFEGUARD SUPERVISOR, or QUALIFIED OPERATOR certificates shall be maintained at the AQUATIC FACILITY and made available to the HEALTH AUTHORITY, staff, and PATRONS upon request.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
4-401.6 Bodily Fluids Remediation Log (A) A Body Fluid Contamination Response Log shall be maintained to document each occurrence of contamination of the water or its immediately adjacent areas by formed or diarrheal fecal material, stomach discharge of vomit, and blood. (B) The AQUATIC FACILITY's standard operating procedures for responding to these contamination incidents shall be readily available for review by the HEALTH AUTHORITY.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT

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(C) The log shall include the following information recorded at the time of the incident: (1) Person conducting response; (2) QUALIFIED OPERATOR or on-site RESPONSIBLE PERSON on duty; (3) Date and time of incident response; (4) Specific area, if not in the water, contaminated by incident; (5) BATHER COUNT in the AQUATIC VENUE at the time of incident; (6) Type and form of body fluid observed e.g., diarrheal or formed stool, vomitus, or blood; (7) Date and time the area was closed; (8) Whether the POOL used CHLORINE stabilizer and concentration at time of incident; (9) Free residual disinfectant and PH levels at the time of incident; (10) Remediation procedures used after the incident including contact time, if applicable; (11) Free residual disinfectant and PH level at the time of reopening the AQUATIC VENUE to the public; (12) Stabilizer concentration, if used, at the time of reopening; and (13) Date and time of reopening.		
4-402 Patron-Related Management Aspects		
4-402.1 BATHER COUNT-Maximum Occupancy AQUATIC FACILITIES that typically operate with low BATHER OCCUPANCY shall have a plan in place to adjust for potential higher BATHER use. Such plans shall not exceed the maximum designed THEORETICAL PEAK OCCUPANCY for the individual AQUATIC VENUES or the AQUATIC FACILITY.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
4-402.2 Signage (A) The QUALIFIED OPERATOR shall post and enforce the AQUATIC FACILITY rules governing health, safety, and sanitation. (B) The lettering shall be legible and at least one (1) inch (36 point type) high, with a contrasting background, unless otherwise specified. (C) Signage shall be conspicuously placed at each entrance to the AQUATIC FACILITY communicating expected and prohibited behaviors and other information using text that complies with the intent of the following information: (1) In case of an emergency, dial 911 or other emergency instructions; (2) Hours of operation; (3) THEORETICAL PEAK OCCUPANCY; (4) Do not swim if you have open wounds; (5) Do not swim if you are ill with diarrhea or have had diarrhea within the past two weeks; (6) Shower before entering the water; (7) No glass items in the AQUATIC VENUE or on the DECK; (8) Diaper changing on the DECK is prohibited; (9) No animals in the AQUATIC VENUE and no animals on the DECK, except service animals; and (10) QUALIFIED OPERATOR information to include name, registration number, and contact information. (D) In addition to signage listed in Section (C), unstaffed AQUATIC FACILITIES shall also include signage messages covering: (1) No Lifeguard on Duty, in letters at least four (4) inches high; (2) Children under 14 years of age must have adult supervision; (3) No Solo Bathing; and	**NAC 444.116 Limitations on depth; signs prohibiting diving.** 4. If a pool is not designed for diving, a sign stating "NO DIVING," in contrasting characters of not less than 4 inches (10.16 centimeters) in height, must be posted. **NAC 444.142 Lighting.** 7. If lighting is not provided as required by this section, the operator of the facility or natural bathing place: (b) Shall 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. **NAC 444.268 Posting information on artificial respiration and emergency services.** Diagrammatic illustrations of artificial respiration procedures must be posted at all public bathing or swimming facilities where they are clearly visible from the nearby deck and protected from the elements. 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	**REWORDED TO MIRROR MAHC**

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(4) Hours of operation; AQUATIC FACILITY use prohibited at any other time (a) AQUATIC FACILITIES without compliant lighting must limit hours of operation from dawn to dusk. (E) In AQUATIC FACILITIES not requiring LIFEGUARDS, CPR posters reflecting the latest standards shall be posted conspicuously at all times. (F) Signage shall be conspicuously placed within 30 feet of each entrance to each AQUATIC VENUE communicating expected and prohibited behaviors and other information using text that complies with the intent of the following information: (1) No Diving, in letters at least four (4) inches high, as applicable per Section 2-3018.10; (2) Location of the nearest emergency phone; (3) Maximum BATHER OCCUPANCY; (4) Pollution of AQUATIC VENUE prohibited; (5) Do not swallow or spit water; (6) Intentional hyperventilation or extended breath holding activities are dangerous and prohibited. (G) In addition to Section (C) requirements, AQUATIC VENUES with moveable bottom floors shall also have the following information or text complying with the intent of the following information: (1) A sign for AQUATIC VENUE water depth in use shall be provided and clearly visible; (2) A "No Diving" sign shall be provided; and (3) The floor is movable and AQUATIC VENUE depth varies. (H) In addition to Section (C) requirements, SPAS shall also have the following information or text complying with the intent of the following information: (1) Maximum water temperature is 104°F; (2) Pregnant women and people with heart disease, high blood pressure or other health problems should not use SPAS without prior consultation with a healthcare provider; (3) Children under 12 years of age must be accompanied by an adult, the maximum recommended exposure time for such children is 10 minutes, posted in four (4) inch lettering; and (4) Use of the SPA when alone is prohibited (*if no LIFEGUARDS on site*). (I) Signage shall be posted at the HYGIENE FACILITY exit used to access AQUATIC VENUES stating or containing information, or text complying with the intent of the following information: (1) Do not swim when ill with diarrhea; (2) Do not swim with open wounds and sores; (3) Shower before entering the water; (4) Check your child's swim diapers/rubber pants regularly; (5) Diaper changing on the DECK is prohibited; (6) Do not poop or pee in the water; (7) Do not swallow or spit water; and (8) Wash hands before returning to the POOL.	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. A telephone must be located in the vicinity of the pool enclosure, but outside of the enclosure. 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. **NAC 444.276 Notices when lifeguards not provided.** If no lifeguard service is provided, a warning sign must be placed in plain view for all bathers and must state "Warning - No Lifeguard on Duty" with clearly legible letters, at least 4 inches (10 centimeters) in height. In addition, the sign must state "Children Under 14 Years Old Should Not Use Facility Without An Adult in Attendance," and "Solo Bathing is Prohibited." **NAC 444.278 Capacity.** 4. The maximum number of bathers permitted within the pool enclosure must be posted at each facility. The number must be based on the area of the facility or on the sanitary facilities which are provided. The most restrictive regulation applies. **NAC 444.280 Bathers: Requirements; prohibitions.** 1. All bathers at a public bathing or swimming facility shall take a cleansing shower using warm water and soap and shall thoroughly rinse off all soap suds before entering or reentering the pool enclosure. 2. Persons not dressed for bathing must not be allowed in the pool. 3. Persons suffering from colds, fever, coughs, sore or inflamed eyes, any skin disease or any communicable disease or open sores or bandages must be excluded from the facility. 4. Spitting, soiling, or in any way contaminating the water, walkways, or dressing room floors in the facility must be prohibited. 5. Except as otherwise provided in NAC 444.288, eating, drinking and smoking within the pool enclosure are prohibited. 6. Bringing or throwing into the water or onto	

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	walkways any objects that may in any way carry contamination, endanger safety of bathers or produce unsightliness must be prohibited. 7. No boisterous or rough play may be permitted in the water, on the walkways, diving boards, floors or platforms, or in the dressing rooms or showers. 8. Persons under the influence of liquor must not be permitted in or about the facility. 9. Public bathing or swimming facilities are for use of people only; animals must be excluded from the pool and enclosure. **NAC 444.524 Heater and temperature requirements.** (NRS 439.200, 444.070) 1. Water temperature in a therapy pool must be maintained above 70F (21.11C), and must not be artificially heated above 104F (40.0C). 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. **NAC 444.526 Safety requirements.** 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. **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.	

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	(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. **NAC 444.534 Capacity.** 2. A sign must be posted within the spa area which states the maximum number of people allowed in the spa at one time.	
4-402.3 Swimmers must wear appropriate attire that is designed and intended for use as swimwear where swimwear is required. Street clothing may not be worn while bathing.	**NAC 444.280 Bathers: Requirements; prohibitions.** 2. Persons not dressed for bathing must not be allowed in the pool.	**REWORDED TO MIRROR MAHC**
4-5 Fecal/Vomit/Blood Contamination Response		
4-501 Contamination Response Plan		
4-501.1 All AQUATIC FACILITIES shall have a CONTAMINATION RESPONSE PLAN within the EAP for responding to formed-stool contamination, diarrheal-stool contamination, vomit contamination, and contamination involving blood.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
4-501.2 The Response Plan shall be reviewed at least annually and updated as necessary.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
4-501.3 The Response Plan shall be kept on site and available for viewing by the HEALTH AUTHORITY.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
4-502 Aquatic Venue Water Contamination Response		
4-502.1 Closure In the event of a fecal or vomit contamination in an AQUATIC VENUE, the QUALIFIED OPERATOR shall immediately close the AQUATIC VENUE to swimmers until remediation procedures are complete. This closure shall include the affected AQUATIC VENUE and other AQUATIC VENUES that share the same RECIRCULATION SYSTEM.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
4-502.2 Physical Removal Contaminating material shall be removed and disposed of in a sanitary manner. **(A)** The item used to remove fecal or vomit contamination shall undergo thorough cleaning followed by DISINFECTION. **(B)** Aquatic vacuum cleaners shall not be used for removal of contamination from the water or adjacent surfaces unless vacuum waste is discharged to a sanitary sewer and the vacuum equipment can be adequately disinfected.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
4-503 Aquatic Venue Water Contamination Treatment and Disinfection		

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4-503.1	In the event of a fecal, vomit, or blood contamination incident, the AQUATIC FACILITY shall follow the most recent response guidelines from the CDC, Healthy Swimming Fecal Incident Response Recommendations for Aquatic Staff. Note: The use of stabilized chlorine or CYA inhibits the effectiveness of the disinfecting agent and may require the draining of an AQUATIC VENUE if the concentration cannot be lowered to 15PPM prior to treatment per guidelines above.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
4-504	**Surface Contamination Cleaning and Disinfection**		
4-504.1	If a bodily fluid, such as feces, vomit, or blood, has contaminated a surface in an AQUATIC FACILITY, facility staff shall limit access to the affected area until remediation procedures have been completed.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
4-504.2	Before DISINFECTION, all visible contaminant shall be cleaned and removed with disposable cleaning products effective with regard to type of contaminant present, type of surface to be cleaned, and the location within the facility.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
4-504.3	Contaminant removed by cleaning shall be disposed of in a sanitary manner or as required by law.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
4-504.4 **(A)** **(B)**	Contaminated surfaces shall be disinfected with one of the following DISINFECTION solutions: A 1:10 dilution of fresh household bleach with water; or An equivalent EPA REGISTERED disinfectant that has been approved for body fluids DISINFECTION.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
4-504.5	The disinfectant shall be left to soak on the affected area for a minimum of 20 minutes or as otherwise indicated on the disinfectant label directions.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
4-504.6	Disinfectant shall be removed by cleaning and shall be disposed of in a sanitary manner or as required by the HEALTH AUTHORITY.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
SECTION 5	**Compliance and Enforcement**		
5-1	**Provision for Conditions Not Addressed in these Regulations**		
5-101	The HEALTH AUTHORITY shall address conditions when necessary to protect public health and may impose temporary, specific requirements in addition to the requirements specified in these Regulations.	**NAC 444.302 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 bathing or swimming facility or natural bathing place to prohibit any person from using it if the health authority finds: (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 swimming or bathing. (c) A lack of required supervisory personnel or	**REWORDED TO MIRROR MAHC**

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		required lifeguards. (d) That the operator of the facility or bathing place 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 NRS 444.065 to 444.120, inclusive, and NAC 444.010 to 444.306, inclusive.	
5-102	The HEALTH AUTHORITY shall document the conditions that necessitate the imposition of additional requirements and the underlying public health rationale. The documentation shall be provided to the PERMIT applicant or PERMIT HOLDER, and a copy shall be maintained in the HEALTH AUTHORITY's file for the AQUATIC FACILITY.	**NAC 444.304 Order for closure; revocation of suspended permit.** 1. If the health authority orders the closing of a public bathing or swimming facility or natural bathing place, the health authority shall issue a written order to the owner or operator of the facility or bathing place, or his or her representative, stating with particularity the reason for the order of closure along with his or her 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 bathing place 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 bathing place. 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.	**REWORDED TO PROVIDE LANGUAGE AND FORMAT CONSISTENCY**
5-2	**Prerequisites for Operation**		
5-201	**Permit Requirements** A person shall not operate an AQUATIC FACILITY without a valid PERMIT issued by the	**NAC 444.258 Operating permits.** 1. No public bathing or swimming facility or natural bathing	**REWORDED TO PROVIDE**

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HEALTH AUTHORITY.	place may operate unless the operator has applied for and received an operating permit from the health authority.	**LANGUAGE AND FORMAT CONSISTENCY**
5-202 Permit Application, Renewals, Transfers, Submission, Conditions, and Content		
5-202.1 Application and Submission (A) For new construction and SUBSTANTIAL ALTERATIONS, plans will be reviewed and a written response outlining any additional information or corrections needed for the plan approval within 30 business days from the most recent date of submission. (B) If construction has not been initiated within one (1) calendar year from the date of plan approval or if construction halts for one (1) calendar year, the PERMIT may be deleted and require the resubmission of plans and PERMIT application with associated fees prior to resuming construction.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-202.2 Conditions To qualify for a PERMIT, an applicant shall: (A) Be an OWNER, prospective OWNER, or person legally in charge OWNER designee, or an officer of the legal ownership of the AQUATIC FACILITY; (B) Pay the applicable PERMIT fees at the time the application is submitted; (C) Comply with the requirements of these Regulations.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-202.3 Application, Renewal, and Submission (A) Applications for an initial, new, or renewal PERMIT must be made on an application form furnished by the HEALTH AUTHORITY. (B) All applications must be submitted at least 30 days before: (C) The opening date of any aquatic venue or aquatic facility; (D) The expiration of any PERMIT; and/or (E) The effective date of a change of ownership. (F) For new construction and SUBSTANTIAL ALTERATIONS, plans will be reviewed and a written response outlining any additional information or corrections needed for the plan approval will be provided to the applicant within 30 business days from the most recent submission date. (1) If from the date of plan approval, construction has not been initiated within one (1) calendar year, or construction halts for one (1) calendar year, the HEALTH AUTHORITY may, in its sole discretion, delete the PERMIT and require the resubmission of plans and a PERMIT application with associated fees prior to resuming construction.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-202.4 Contents of the Application The application must include: (A) The name, mailing address, telephone number, and signature of the person applying for the PERMIT. (B) The name, mailing address, and physical location of the AQUATIC FACILITY. (C) If an application is made by a corporation, an LLC, association or partnership, the names of the members or officers and signature of at least one managing member or officer, a contact telephone number, and address shall be provided. (D) Information specifying whether an association, corporation, individual, partnership, or other legal entity owns the AQUATIC FACILITY. (E) The name, title, address, and telephone number of the RESPONSIBLE PERSON for the AQUATIC FACILITY. (F) The name, title, address, and telephone number of the person who functions as the	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**

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immediate supervisor of the RESPONSIBLE PERSON including but not limited to the zone, district, or regional supervisor. (G) Proof of ownership, lease agreement, or other legal document that establishes the standing of the applicant's authority to use the land for the PERMIT purpose. (H) The names, titles, and business addresses of: (1) The legal owners of the physical location of the AQUATIC FACILITY. (2) The local authorized applicant, if one is required, based on the type of legal ownership. Authorization shall be in writing and shall be signed by the OWNER or corporate officer, managing member, or other authorized person. (I) A statement signed by the applicant that: (1) Attests to the accuracy of the information provided in the application; and (2) Affirms that the applicant will: (a) Comply with these Regulations. (b) Allow the HEALTH AUTHORITY access to the establishment and to any records needed to establish compliance with these Regulations. (J) Other information as required by the HEALTH AUTHORITY.		
5-202.5 Denial of Application for Permit, Notice If an application for a PERMIT to operate is denied, the HEALTH AUTHORITY shall provide the applicant with a notice which includes the: (A) Specific reasons and regulatory citations for denial of the PERMIT. (B) Actions the applicant must take to qualify for a PERMIT. (C) Applicant's right of appeal and appeal process.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-3 Waivers		
5-301 Conditions of Waiver		
The HEALTH AUTHORITY may grant a WAIVER by modifying or waiving the requirements of these Regulations if, in the opinion of the HEALTH AUTHORITY, no impact to the public health and safety of PATRONS will result from the WAIVER.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-301.1 During the WAIVER process, the HEALTH AUTHORITY may impose conditions upon the WAIVER.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-301.2 If a WAIVER is granted, the HEALTH AUTHORITY shall retain the information in its records for the AQUATIC VENUE or AQUATIC FACILITY.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-301.3 Failure to meet any WAIVER condition may result in immediate revocation of the WAIVER. If the WAIVER is granted, the PERMIT HOLDER shall comply with any operational plans, procedures, and conditions APPROVED as a basis for the WAIVER.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-302 Documentation of Proposed Waiver and Justification		
An AQUATIC FACILITY seeking a WAIVER shall apply in writing with the appropriate forms to the HEALTH AUTHORITY. The application shall include, but not be limited to:	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-302.1 A statement of the proposed WAIVER of the regulatory requirement citing relevant Regulation section numbers.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-302.2 A statement of how the intent of the Regulations will be met and the reasons why public health and safety would not be jeopardized if the waiver was granted.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-302.3 An operational plan, if required, that includes information relevant to the WAIVER requested.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT

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5-302.4 Any requested records or documentation required as part of the WAIVER approval.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-303 Change of Ownership of an Existing Aquatic Facility		
5-303.1 An existing AQUATIC FACILITY, at the time of change of ownership, shall meet the requirements of the following Section prior to issuance of a PERMIT.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-303.2 The HEALTH AUTHORITY may issue a PERMIT to a new OWNER of an existing AQUATIC FACILITY after a properly completed application is submitted, reviewed, and APPROVED, fees are paid, and an inspection is passed.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-303.3 A facility may be required to bring any aspect of the AQUATIC VENUE or AQUATIC FACILITY into compliance with the current Regulations when ownership changes.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-4 Responsibilities		
5-401 Responsibilities of the Health Authority The responsibilities of the HEALTH AUTHORITY include:	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-401.1 At the time a PERMIT is first issued, the HEALTH AUTHORITY shall inform the PERMIT HOLDER where a copy of these Regulations may be obtained, and that the PERMIT HOLDER is responsible for compliance with these Regulations.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-401.2 Failure to provide the above information does not prevent the HEALTH AUTHORITY from taking authorized action, or seeking remedies, if the PERMIT HOLDER fails to comply with these Regulations or an order, warning, or directive of the HEALTH AUTHORITY.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-402 Responsibilities of the Permit Holder To retain the PERMIT, the PERMIT HOLDER shall:	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-402.1 Post the PERMIT in a location in the AQUATIC FACILITY that is clearly conspicuous to the PATRON upon entering the AQUATIC FACILITY or immediately available upon request.	**NAC 444.258 Operating permits.** 4. The permit must be posted in a conspicuous place at or near the office of each facility or bathing place. In addition, placards directing the behavior of bathers must be prominently posted in locker rooms, offices, showers, toilets or elsewhere about the facility or bathing place.	**REWORDED TO MIRROR MAHC**
5-402.2 Comply with the provisions of these Regulations including the conditions of a granted VARIANCE, APPROVED WAIVER, and APPROVED plans.	**NAC 444.302 Suspension or denial of 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	**REWORDED TO PROVIDE LANGUAGE AND FORMAT CONSISTENCY**

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	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 NRS 444.065 to 444.120, inclusive, and NAC 444.010 to 444.306, inclusive.	
5-402.3 Immediately discontinue operations and notify the HEALTH AUTHORITY if an IMMINENT HEALTH HAZARD exists.	**NAC 444.302 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 bathing or swimming facility or natural bathing place to prohibit any person from using it if the health authority finds: (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 swimming or bathing. (c) A lack of required supervisory personnel or required lifeguards. (d) That the operator of the facility or bathing place is not maintaining the required water quality. (e) That the operator does not possess a valid operating permit.	**REWORDED TO MIRROR MAHC**
5-402.4 Immediately notify the HEALTH AUTHORITY if a drowning, near drowning of water rescue event occurs.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-402.5 Allow representatives of the HEALTH AUTHORITY access to the AQUATIC VENUE or AQUATIC FACILITY upon request.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-402.6 Comply with directives of the HEALTH AUTHORITY, including, but not limited to, time frames for corrective actions specified in inspection reports, supervisory conferences, compliance schedules, notices, orders, warnings, and other directives issued by the HEALTH AUTHORITY concerning the PERMIT HOLDER'S AQUATIC FACILITY or in response to community emergencies.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-402.7 Comply with all applicable federal, state and local governmental requirements as related to the operation of an AQUATIC VENUE or AQUATIC FACILITY. The responsibility of upholding these requirements falls solely on the PERMIT HOLDER, and failure to do so may result in PERMIT suspension or revocation.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-402.8 Accept notices issued and served by the HEALTH AUTHORITY.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-402.9 Be subject to the administrative, civil, injunctive, and criminal remedies as specified in NRS Chapter 444, for failure to comply with these Regulations or with a directive of the	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current**

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	HEALTH AUTHORITY, including but not limited to time frames for corrective actions specified in inspection reports, supervisory conferences, compliance schedules, notices, orders, warnings, and other directives.		**administrative policies**
5-403	**Permit Modifications** Proposed modifications in the type of operations to be conducted by an AQUATIC FACILITY, must not be allowed unless APPROVED by the HEALTH AUTHORITY. The modification process may include, but not be limited to, submission of a construction application, complete with plans and information describing the proposed modifications in design, equipment, and operations.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-404	**Permit Transfer Prohibited** A PERMIT may not be transferred from one OWNER to another, from one AQUATIC VENUE or AQUATIC FACILITY to another.		**Consistent with current administrative policies**
5-5	**Enforcement, Inspections**		
5-501	**Inspection Authority**		
5-501.1	Upon presenting proper identification, the HEALTH AUTHORITY, shall have the right of access, entrance, inspection, and investigation of any AQUATIC FACILITY permitted by these Regulations.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-501.2	Unless a QUALIFIED OPERATOR is available onsite all day, keys must be provided to allow access the POOL, pump room, HYGIENE FACILITY, and any other related areas.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-501.3 (A) (B) (C) (D) (E) (F) (G)	The right of access pursuant to this section, includes, but, is not limited to access for the purpose of: Routine inspection; Inspect or investigate to determine if there has been a violation of NRS Chapter 444 or these Regulations; Verify compliance with previously written violation orders; Collect samples or specimens; Examine, review, and copy relevant documents and records; Obtain photographic or other evidence needed to enforce these Regulations; and Question any person	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-501.4	If the HEALTH AUTHORITY is refused access, the HEALTH AUTHORITY shall provide details of the denial of access on an inspection report form and the AQUATIC FACILITY will be posted as closed.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-502	**Inspection Frequency**		
5-502.1	An AQUATIC FACILITY'S inspection frequency may be amended based on a risk of recreational water injury and illness.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-503	**Posting Pool Closure**		
5-503.1	Where an IMMINENT HEALTH HAZARD is found, the AQUATIC VENUE may be posted closed.	**NAC 444.302 Suspension or denial of operating permit. (NRS 439.200, 444.070, 444.080, 444.100)**	**REWORDED TO MIRROR MAHC**

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	1. The health authority may order a suspension of an operating permit and may order the owner or operator of a public bathing or swimming facility or natural bathing place to prohibit any person from using it if the health authority finds: (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 swimming or bathing. (c) A lack of required supervisory personnel or required lifeguards. (d) That the operator of the facility or bathing place 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 NRS 444.065 to 444.120, inclusive, and NAC 444.010 to 444.306, inclusive.	
5-503.2 Closure signs shall be conspicuously posted at each entrance leading to the AQUATIC VENUE.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-503.3 Closure signs must state that concealment, mutilation, alteration, or removal of it by any PERSON without permission of the HEALTH AUTHORITY shall constitute a violation of these Regulations.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-504 Follow-up Inspection The HEALTH AUTHORITY shall inspect the premises upon notification that the hazard has been eliminated and remove the closure signs after verifying correction. The HEALTH AUTHORITY, in its sole discretion, may accept other evidence of correction of the hazard in lieu of inspecting the premises.	**NAC 444.306 Reinspection.** (NRS 439.200, 444.070, 444.100) 1. After the specified corrective action has been taken, the owner or operator or his or her representative shall notify the health authority that	**REWORDED TO MIRROR MAHC**

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	the facility or bathing place is ready for reinspection. 2. If upon reinspection the corrective action is approved, the health authority shall order the reinstatement of the operating permit, at which time the facility or bathing place may be opened for use. 3. If upon reinspection the corrective action is not approved, the operating permit remains suspended and the facility or bathing place must be kept closed and out of use until corrective action is approved.	
5-505 Appeal Process		
5-505.1 A person aggrieved by an action taken by the HEALTH AUTHORITY may request a meeting with the employee responsible for the action and the program supervisor within 10 business days.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-505.2 If the meeting does not resolve the issue, the aggrieved person may submit a written request for a meeting with the division director or section manager within 10 business days.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-6 Imminent Health Hazards		
5-601 Violations Requiring Immediate Correction or Closure Any of the following violations are IMMINENT HEALTH HAZARDS which shall require immediate correction or POOL closure until the condition is corrected:	**NAC 444.302 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 may order the owner or operator of a public bathing or swimming facility or natural bathing place to prohibit any person from using it if the health authority finds: (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 swimming or bathing. (c) A lack of required supervisory personnel or required lifeguards.	**REWORDED TO MIRROR MAHC**

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		(d) That the operator of the facility or bathing place 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 NRS 444.065 to 444.120, inclusive, and NAC 444.010 to 444.306, inclusive.	
5-601.1	Failure to provide adequate supervision and staffing of the AQUATIC FACILITY as prescribed in these Regulations;	**see 5-601**	**Consistent with current administrative policies**
5-601.2	Failure to provide DISINFECTANT residual levels within the minimum and maximum limits designated in these Regulations;	**see 5-601**	**Consistent with current administrative policies**
5-601.3	Failure to treat and achieve proper disinfection following a body fluid contamination event;	**see 5-601**	**Consistent with current administrative policies**
5-601.4	pH level below 6.5;	**see 5-601**	**Consistent with current administrative policies**
5-601.5	pH level above 8.0;	**see 5-601**	**Consistent with current administrative policies**
5-601.6	Failure to continuously operate the AQUATIC VENUE filtration and DISINFECTION equipment;	**see 5-601**	**Consistent with current administrative policies**
5-601.7	Failure to maintain CYA levels below 80 PPM;	**see 5-601**	**Elevation of enforcement due to current scientific data supporting significance**
5-601.8	Use of an unapproved or contaminated water supply source for potable water use;	**see 5-601**	**Consistent with current**

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		administrative policies
5-601.9 Non-GFCI protected electrical receptacles within 20 feet of the inside wall of the AQUATIC VENUE;	**see 5-601**	**Consistent with current administrative policies**
5-601.10 Failure to maintain GFCI protection for underwater lighting as required;	**see 5-601**	**Consistent with current administrative policies**
5-601.11 Absence of all required lifesaving equipment on DECK;	**see 5-601**	**Consistent with current administrative policies**
5-601.12 AQUATIC VENUE bottom not visible;	**see 5-601**	**Consistent with current administrative policies**
5-601.13 Total absence of or improper depth markings at an AQUATIC VENUE;	**see 5-601**	**Consistent with current administrative policies**
5-601.14 Plumbing CROSS-CONNECTIONS between the drinking water supply and AQUATIC VENUE water or between sewage system and the AQUATIC VENUE including filter backwash facilities;	**see 5-601**	**Consistent with current administrative policies**
5-601.15 Failure to provide and maintain an ENCLOSURE or BARRIER to inhibit unauthorized access to the AQUATIC FACILITY or AQUATIC VENUE when required;	**see 5-601**	**Consistent with current administrative policies**
5-601.16 Use of unapproved chemicals or the application of chemicals by unapproved methods to the AQUATIC VENUE water;	**see 5-601**	**Consistent with current administrative policies**
5-601.17 Broken, unsecured, or missing submerged suction outlet covers in the AQUATIC VENUE;	**see 5-601**	**Consistent with current administrative policies**
5-601.18 Number of BATHERS/PATRONS exceeds the THEORETICAL PEAK OCCUPANCY;	**see 5-601**	**Consistent with current administrative policies**
5-601.19 Gates that are not self closing and self latching and/or enclosure breaches or gaps;	**see 5-601**	**Consistent with current administrative policies**

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5-601.20 Broken glass or sharp objects in AQUATIC VENUE or on DECK area; or	**see 5-601**	**Consistent with current administrative policies**
5-601.21 Any other item determined to be an IMMINENT HEALTH HAZARD by the HEALTH AUTHORITY.	**see 5-601**	**Consistent with current administrative policies**
5-7 Issuing Report and Obtaining Acknowledgment of Receipt		
5-701 Inspection Conclusion		
5-701.1 At the conclusion of the inspection, the HEALTH AUTHORITY shall: (A) Review a copy of the completed inspection report, and any corresponding notice to correct violations with the PERMIT HOLDER or the facility representative; and (B) Obtain a signed acknowledgement of receipt on the report. If an electronic report, the acknowledgement may be by other means.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-701.2 Refusal to Sign Acknowledgement (A) Should the PERMIT HOLDER or facility representative refuse to sign the acknowledgment, the HEALTH AUTHORITY shall inform the refusing party that: (1) Refusal to sign an acknowledgment does not nullify the inspection report or the PERMIT HOLDER'S obligation to correct the violations noted in the inspection report within the time frames specified. (2) An acknowledgment of receipt does not constitute an agreement with findings. (B) The refusal will be documented on the report and placed in the AQUATIC VENUE'S file. (C) Provide a copy of the inspection report to the PERMIT HOLDER or facility representative.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-702 Resuming Operations		
5-702.1 If operations are discontinued pursuant to Section 5 herein, as the PERMIT HOLDER shall obtain approval from the HEALTH AUTHORITY before resuming operations.	**NAC 444.302 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 may order the owner or operator of a public bathing or swimming facility or natural bathing place to prohibit any person from using it if the health authority finds: (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	**REWORDED TO PROVIDE LANGUAGE AND FORMAT CONSISTENCY**

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	for swimming or bathing. (c) A lack of required supervisory personnel or required lifeguards. (d) That the operator of the facility or bathing place is not maintaining the required water quality. (e) That the operator does not possess a valid operating permit.	
5-702.2 Prior to opening for use, the QUALIFIED OPERATOR shall demonstrate to the health authority any IMMINENT HEALTH HAZARDS have been corrected.	**NAC 444.262 Supervision and maintenance of facilities.** 2. Every public bathing or swimming facility must be maintained under the supervision of a qualified operator who is responsible for the sanitation and safety of the facility and for the maintenance of its equipment and records. 3. The operator must demonstrate to the health authority that he or she 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.	**REWORDED TO PROVIDE LANGUAGE AND FORMAT CONSISTENCY**
5-702.3 Facilities documented by the HEALTH AUTHORITY to be operating under conditions of an IMMINENT HEALTH HAZARD and were issued an immediate closure, shall pay applicable fees and pass a reopening inspection with no additional closure violations remaining.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-8 Summary Suspension, Reinstatement and Revocation		
5-801 Summary Suspension Reinstatement of Suspended Permit		
5-801.1 The HEALTH AUTHORITY may suspend PERMITS for failure of the PERMIT HOLDER to comply with the requirements of these Regulations.	**NAC 444.304 Order for closure; revocation of suspended permit.** (NRS 439.200, 444.070, 444.100) 1. If the health authority orders the closing of a public bathing or swimming facility or natural bathing place, the health authority shall issue a written order to the owner or operator of the facility or bathing place, or his or her representative, stating with particularity the reason for the order of closure along with his or her finding that the condition giving rise to the order represents a serious threat to the public health and safety.	**REWORDED TO PROVIDE LANGUAGE AND FORMAT CONSISTENCY**

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	2. The order must state that the facility or bathing place 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 bathing place. 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.	
5-801.2 If conditions exist at a pool which presents an IMMINENT HEALTH HAZARD, the HEALTH AUTHORITY may, upon written notice, immediately suspend the operating PERMIT and order the immediate closure.	See above	
5-801.3 The suspension shall be effective upon receipt of written notice by the RESPONSIBLE PERSON, QUALIFIED OPERATOR, or other person in charge. The order of suspension statement on the inspection report constitutes written notice.	See above	
5-801.4 The order of suspension must include the following statements: **(A)** The PERMIT is immediately suspended and all operations shall be immediately discontinued; **(B)** The reasons for summary suspension with specific reference to NRS Chapter 444 and these Regulations; **(C)** The type of imminent threat to public health that caused the violation; **(D)** The person to whom a request for re-inspection may be made; **(E)** The PERMIT holder may request a hearing within five (5) business days of the summary suspension.	See above	
5-801.5 THE HEALTH AUTHORITY shall conduct a re-inspection of the AQUATIC FACILITY or AQUATIC VENUE for which the permit was summarily suspended within two (2) business day after receiving notice from the PERMIT holder stating that the conditions cited in the summary suspension order no longer exist.	**NAC 444.306 Reinspection.** (NRS 439.200, 444.070, 444.100) 1. After the specified corrective action has been taken, the owner or operator or his or her representative shall notify the health authority that the facility or bathing place is ready for reinspection. 2. If upon reinspection the corrective action is	**REWORDED TO PROVIDE LANGUAGE AND FORMAT CONSISTENCY**

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	approved, the health authority shall order the reinstatement of the operating permit, at which time the facility or bathing place may be opened for use.	
5-801.6 The HEALTH AUTHORITY shall hold a hearing,	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-801.7 The HEALTH AUTHORITY will permanently revoke a PERMIT unless a request for a hearing is filed with the HEALTH AUTHORITY by PERMIT HOLDER within five (5) business days, the HEALTH AUTHORITY will permanently revoke a PERMIT after five (5) days following service of the notice.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-802 Suspension and Revocation		
5-802.1 The PERMIT HOLDER may request a hearing within five (5) business days of the summary suspension.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-802.2 The HEALTH AUTHORITY shall hold a hearing, if requested, within ten (10) business days of receipt of the request for hearing.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-802.3 The HEALTH AUTHORITY will permanently revoke a PERMIT, unless a request for a hearing is filed with the HEALTH AUTHORITY by PERMIT HOLDER within five (5) business days.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-802.4 The HEALTH AUTHORITY may, after a hearing, suspend or revoke an AQUATIC FACILITY or AQUATIC VENUE PERMIT for violation of NRS Chapter 444, these Regulations, or an order issued by the HEALTH AUTHORITY.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-802.5 Unless a hearing is requested as required herein, the suspension or revocation order shall take effect 15 calendar days after the date of issuance of the notice of suspension or revocation.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-802.6 A notice of suspension or revocation must include the following: **(A)** The reasons for the suspension or revocation with reference to the specific provisions of NRS Chapter 444 and these Regulations. **(B)** The AQUATIC FACILITY has a right to request a hearing within 15 calendar days after issuance of the notice; **(C)** The PERMIT shall be suspended or revoked fifteen (15) calendar days after receipt of the suspension or revocation notice and all operations shall cease at that time unless a hearing is requested.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-9 Suspension or Revocation of Qualified Operator or Pool Company Registration		
5-901 The HEALTH AUTHORITY may suspend or revoke the registration of a pool company or QUALIFIED OPERATOR if work of the company or QUALIFIED OPERATOR is performed in such a manner as to create on-going or egregious unsanitary, unsafe, or unhealthful conditions.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-902 A pool company or QUALIFIED OPERATOR may request a hearing within five (5) business days of the summary suspension.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-903 The HEALTH AUTHORITY shall hold a hearing, if requested, within ten (10) business days of the receipt of the request for hearing.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-904 The HEALTH AUTHORITY will permanently revoke a pool company or QUALIFIED OPERATOR registration, unless a request for a hearing is filled with the HEALTH AUTHORITY by the pool company or QUALIFIED OPERATOR within five (5) business days.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-905 The HEALTH AUTHORITY will, after a hearing, suspend or revoke a pool company or QUALIFIED OPERATOR for violation of NRS Chapter 444, these Regulations, or an order	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT

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	issued by the HEALTH AUTHORITY.		
5-906	Unless a hearing is requested as required herein, the suspension or revocation order shall take effect 15 calendar days after the date of issuance of the notice of suspension or revocation.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-907	**A notice of suspension or revocation must include the following:**		
5-907.1	The reasons for the suspension or revocation with reference to the specific provisions of NRS Chapter 444 and these Regulations;	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-907.2	The pool company or QUALIFIED OPERATOR has a right to request a hearing within 15 calendar days after issuance of the notice;	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-907.3	The registration shall be suspended or revoked fifteen (15) calendar days after receipt of the suspension or revocation notice and all operations shall cease at that time unless a hearing is requested.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	NEW REQUIREMENT
5-10	**Notice and Service of Notice**		
5-1001	A notice issued in accordance with these Regulations is considered properly served if it is served by one of the following methods:	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-1001.1	The notice is personally served by the HEALTH AUTHORITY to the QUALIFIED OPERATOR or RESPONSIBLE PERSON or the person in charge; and/or	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-1001.2	Sending the notice by registered or certified mail, return receipt requested, to the last known address of the AQUATIC FACILITY OWNER.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-1001.3	The HEALTH AUTHORITY shall file a copy of the notice in the PERMIT holder's file.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-1002	**Reinstatement**		
5-1002.1	When a PERMIT has been suspended or revoked, an application may be made for reinstatement. Such application must include a verified statement declaring that the reason for the suspension or revocation of the PERMIT has been eliminated.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-1002.2	If upon investigation by the HEALTH AUTHORITY, it is determined that all reasons for suspension or revocation have been eliminated and all provisions of these Regulations have been complied with, the HEALTH AUTHORITY shall reinstate said PERMIT.	**NAC 444.306 Reinspection.** 1. After the specified corrective action has been taken, the owner or operator or his or her representative shall notify the health authority that the facility or bathing place is ready for reinspection. 2. If upon reinspection the corrective action is	**REWORDED TO PROVIDE LANGUAGE AND FORMAT CONSISTENCY**

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	approved, the health authority shall order the reinstatement of the operating permit, at which time the facility or bathing place may be opened for use. 3. If upon reinspection the corrective action is not approved, the operating permit remains suspended and the facility or bathing place must be kept closed and out of use until corrective action is approved. **NAC 444.546 Reinspection.** 1. After corrective action has been taken, the owner or operator or his or her 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.	
5-1003 Post Revocation Action Once the PERMIT has been suspended or revoked, as specified in Section 5-8 of these Regulations, the PERMIT holder shall discontinue all activity associated with the AQUATIC VENUE(s) in question. Failure to do so may result in the HEALTH AUTHORITY requesting an injunction from the District Court of Jurisdiction against continued operation by the PERMIT HOLDER.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-1004 Hearings and Appeals		
5-1004.1 All hearings provided for in these Regulations shall be conducted in accordance with the Nevada Administrative Practice Act, NRS Chapter 233B and Health Authority Hearing Officer Regulations.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-1004.2 Nothing herein contained shall be construed as denying the rights of appeal to the courts after administrative remedies as herein above have been exhausted.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-11 Abandonment Process		
5-1101 To remove an AQUATIC VENUE from regulatory oversight and have the associated HEALTH PERMIT deleted, all equipment associated with the circulation system must be removed and piping appropriately capped in addition to one of the following:	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative**

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		policies
5-1101.1 The AQUATIC VENUE shell may be left in place provided it has been punctured to prevent the accumulation of water, an adequate BARRIER is in place and locked, and must be maintained clean, drained, and free of nuisance conditions;	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-1101.2 The AQUATIC VENUE is filled with gravel or other fill, the shell perforated to prevent water saturation and subsequent nuisance issues allowing for the BARRIER to be removed; or	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-1101.3 The AQUATIC VENUE shell is demolished and removed allowing for the BARRIER to then be removed.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-12 Public Information The HEALTH AUTHORITY shall treat the inspection report as a public document and shall make it available for disclosure pursuant to NRS Chapter 239.	NEW REQUIREMENT NOT FOUND IN CURRENT NAC 444	**Consistent with current administrative policies**
5-13 Severability Clause Should any section, paragraph, sentence, clause, or phrase of these Regulations be declared unconstitutional or invalid for any reason the remainder of these Regulations shall not be affected thereby.	**NAC 444.097 Severability.** If any provision of NAC 444.010 to 444.306, inclusive, is declared unconstitutional or invalid for any reason, the remainder of the provisions of those sections are not intended to be affected thereby. **NAC 444.419 Severability.** 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.	**REWORDED TO MIRROR MAHC**

ATTACHMENT

E

Comment Received	Action - rational
General comments and concerns raised by the Resort Association regarding Party Pools	All references to Party Pools were removed from the draft
2-101.7 - only allowing for a single set of roll plans may create difficulties for the builders due to the necessity of multiple stamped plans that are required throughout the construction project.	Added in wording for" a minimum of" one set of plans must be submitted.
2-102.2B9 reference to lighting and photometric caused confusion as to what type of lighting plan was being referred to	The word "area" was added for clarification
2-102.2G requirement for diaper changing stations to be included on the plan, are they required?	Removed reference to diaper changing stations
2-103.3 – concern about the requirement to notify SNHD for the installation of like for like equipment prior to installation – request for this section to be removed or for Resorts to be exempt from the notification process	Changed the requirement to notify SNHD within 5 business days of the equipment change for like equipment
2-201.8 - concern expressed that existing wording would eliminate the use of pebble tech style interiors	Added the word "loose" pebbles
2-202.1 Confusion about what is being referred to by "interior finishes"	Added the word building finishes for clarity
2-302.3 No requirements for diving equipment	Reference added
2-304.4 – request to alter the tread depth from 12 - 16 inches to 12 – 18 inches	16 inch reference was changed to 18 inches
2-305.4 - confusion regarding handrail requirements: Stairs wider than 5 feet shall have at least one additional handrail for every 12 feet of stair width, The question was how many handrails would be required for 10 feet of stairs?	Changed 12 feet of stair width to 10 feet of stair width to provide more clarity
2-308.2 – horizontal clear space between handrails shall not be less than 17 inches and not more than 24 inches. – recommended changing 17 inches to 18 inches for continuity	Changed 17 inches to 18 inches
2-309.3 – Trench drains shall be used along zero depth entry at the water line to facilitate surface skimming. – recommend removing the requirement for skimmer pools.	Existing designs incorporate this feature – did not incorporate this suggestion into the regulations
2-102.3 Theoretical peak occupancy – concerns regarding the occupancy proposed for party pools was too low, and the occupancy proposed for deck areas would lead to potential revenue loss	Removed all references to party pools and deck density from draft – will rely on other jurisdictional entities to provide requirements – Building and fire.
2-103.2 non-substantial alteration is not defined	Definition was added
2-3013.5 request to change the thickness of the overhang coping from 3.5 inches to 4 inches for the last two inches of the overhang.	Change was not incorporated – potential challenge for small hand being able to utilize the hand hold
2-3014.2 –Concern that the second sentence "No maximum distance is enforced for the length of infinity edges in shallow water five feet and less" would negate the requirement established in the section above	Second sentence was removed; it added no value to the intent of the regulatory requirements outlined.
2-3014.5 – recommended adding that the troughs and basins will be included in the calculation of the water volume	Did not add in recommendation – this is not the appropriate section to address water volume issues/ concerns
2-3018.10 - confusion regarding the no diving markers placed on the deck at 25 foot intervals	Added in the work horizontal for clarity
2-401.8 – Statement "pools requiring lighting" is in direct contrast with a statement above that "Lighting as described	Removed the conflicting wording

in this subsection shall be provided for all aquatic venues"	
Concerns regarding 2-502.9 Party Pool Turnovers and 2-504.3 Secondary Disinfection for Party Pools	All references to party pools was removed from each section
2-502 recommend changing "pools" to "aquatic venues" to be more inclusive	All general references to "pools" were changed to "aquaric venue" throughout document.
2-502.2D Recirculation Systems Inlets – The draft proposal requires floor inlets on pools 35 feet wide, the NAC requires them at 30 ft wide	The draft was changed from 35 to 30 ft wide in conformance with the NAC.
2-502.2H2 "A row of floor inlets" shall be within 10 feet of the side wall, suggested language that floor inlets shall be spaced no greater than 10 feet from the nearest sidewall	Changed wording in bullet 3 from floor inlets used with wall inlets shall be spaced no more than 10 feet from the neatest side wall – previously 25 feet
2-502.2J6 Recommendation to add the words " normal operating level"	Added wording
2-502.4 The base of each skimmer shall be level with all skimmers within a tolerance of a quarter of an inch – phrasing caused confusion	Removed "The base of" from the section.
Recommendation to add in a requirement for a minimum of two skimmers is required on each venue	Requirement was added
2-502.2 Recommendation to add the requirement for inlets to be installed 18 inches below the water line	Requirement was added.
2-502.2 Recommendation to add in a requirement for a minimum of 3 inlets to be provided on all aquatic venues	Did not incorporate into Regulation
2-502.5B "A minimum of two hydraulically balanced filtration system outlets are required in the bottom" – what about channel drains?	Added wording – Unless an unblockable drain cover design is provided – also added a definition for unblockable drain cover.
2-502.5C Concern about the statement "outlets shall be equally spaced from the side walls"	Removed equally and added in spaced "no more than 15 feet" from the side walls
2-502.7C1 – Requirement for Net Positive Suction Head on pumps – most manufacturers don't provide the information	Removed requirement
2-502.9H2 incorrect reference – 3-606	Corrected reference to 3-506
2-503.2 concern about the practicality of requiring inline sand filters to be backwashed individually	Removed requirement
2-504.3B Concern about the terminology "optional secondary disinfectant system"	Removed reference – by definition an optional secondary disinfection system is a supplemental disinfection system
2-504.4B incorrect references	References corrected
2-504.4C incorrect references	References corrected
2-604.3K incorrect reference	Reference corrected
2-604 no information regarding associated requirements with chain link fences	Added mesh fencing guidelines
2-604.3G concern about maintenance gates not being allowed to be locked	Added clarifier "public access" for gates
2-701.1 Concern that all outdoor equipment areas would need to have a concrete base	Added the clarifier –"Indoor"
2-701.6B is redundant	Removed line
2-801.4 Revise wording to "The minimum number of toilets..., shall be in accordance with the current building codes and standards	Wording was revised
2-804.2A inconsistent wording – surface area later referred to as space	Changed space to surface area

standards that contemplate additional environmental circumstances and safeguards unique to a particular venue.	
The requirements for depth markers contained in this section should not apply to an existing aquatic facility or venue, many of which were not designed in a way to integrate all of the new standards. For instance, certain resort hotel aquatic venues are marked at ½ foot intervals rather than 1 foot intervals. This provision should apply exclusively to new construction for which an application is submitted after the effective date of these regulations, if adopted. Adequate consideration should be given to alternative depth-marker requirements for existing facilities. The standards proposed here are onerous and impractical for many existing, large-scale aquatic facilities, forcing those facilities to be out of service for extended periods of time to make the required alterations.	Facilities are given 2 yeas to come into compliance with Depth marking requirements. At most repairs/ facility alterations would consist of updating marker tiles and stenciling depth numbers onto the deck at designated intervals.
The proposed requirements for "No Diving" markers should not apply to existing aquatic facilities or venues, many of which were not designed in a way to integrate signs at a minimum of 25 ft. intervals around the perimeter of a pool. This provision should apply exclusively to new construction for which an application is submitted after the effective date of these regulations, if adopted. Adequate consideration should be given to alternative means of existing facilities' providing of "No Diving" signs and other information to patrons; for example, one prominently displayed sign posted at the main entrance to the aquatic facility or venue could be sufficient. The standards proposed in this section are onerous and impractical for many existing, large-scale aquatic facilities or venues.	Facilities are given 2 yeas to come into compliance with No Diving markings At most repairs/ facility alterations would consist of installing No Diving marker tiles or stenciling No Diving letters and the symbol onto the deck at designated intervals.
2-502.2 (L) It is unclear to us why dye testing is required to be performed if an aquatic facility or venue is meeting established flow requirements. The language in this section is too broad and should specifically denote circumstances under which dye testing may be required; those requirements should expressly exclude aquatic venues in which flow requirements are currently being met.	This only applies to new construction when the design is questionable.
2.502.6 (D) This section requires that a complete, easily readable schematic of the entire venue recirculation system be openly displayed in the mechanical room or available to maintenance and inspection personnel. There are many aquatic facilities or venues that have operated for years and may not have such a comprehensive schematic available to them. This provision should apply to new construction for which an application is submitted after the effective date of these regulations, if adopted. SNHD and industry may collaborate on a policy for existing aquatic facilities or venues to identify reasonably acceptable alternatives to a schematic of the entire venue recirculation system.	This is a minor regulatory requirement for which a simple schematic drawing would suffice.
2-502.7 (A) It is unreasonable and unnecessary to require a	Existing requirement NAC 444.172 Strainers

spare strainer basket "be present for each individual pump." Certain aquatic facilities are comprised of multiple venues, and requiring a spare strainer basket for each individual pump would require onsite inventory loads for which adequate space is not available. Moreover, a replacement strainer basket for each pump is not necessary, because all pumps will not require such service simultaneously and replacements can be made in a short period of time. This section should be re-written to require one replacement strainer basket for each style or model of pump present at the aquatic facility.	
2-503.4 (C) Please confirm that this section will not be interpreted to require one complete set of spare cartridges per filter. Such an interpretation would be unreasonable, because replacement cartridges for all filters will never be needed at the same time. Again, many aquatic facilities or venues do not have the space or capacity to accommodate such inventory volumes. It is acceptable, however, to expect an operator to have onsite a minimum of one complete set of spare cartridge filters that may be used for any replacement needs.	Eliminated requirement
2-504.3 (E) 1-11 Our understanding is that the standards prescribed in this section are for drinking water and are unnecessarily stringent for bodies of water intended for bathing. Such onerous standards discourage operators who may wish to install secondary disinfection systems. SNHD should adopt guidelines and standards consistent with those for bodies of water intended for bathing.	The referenced regulation refers to Ozone Disinfection used as a secondary disinfectant. These are the standards recommended by the CDC – it is customary for the secondary disinfection systems to meet drinking water standards since Recreational Water Illnesses are typically contracted from ingestion. Secondary disinfectant systems are only required on high risk venues within 5 years and at new construction of such facilities.
2-605.5 It is unclear why a robotic cleaner must use low voltage for all components that are immersed in pool water. This requirement appears redundant if the robotic cleaner is powered by a GFCI, and the equipment is removed from the water prior to a patron entering the aquatic facility. We recommend that this section be amended to exempt from the low- voltage requirement robotic cleaners powered by a GFCI that is removed from the water prior to a patron entering the aquatic facility.	This is in reference to a robotic vacuum left unattended in a pool when it is not in use. The components that are submerged must be low voltage in addition to utilizing a GFCI protected circuit. A GFCI will only trip if it senses a change in the electrical current; this is a separate safe guard than the requirement for low voltage components.
2-701.1 This section should apply only to new construction for which an application is submitted after the effective date of the regulations, if adopted. Certain aquatic facilities or venues, particularly those in operation for an extended period of time, may have equipment rooms framed in drywall, consistent with applicable building codes at the time of construction. Language should be added to affirm that it is acceptable for existing aquatic facilities or venues to have equipment rooms framed in drywall.	This section only applies to new facilities; refer to the first sentence of Section 2.
2-702.3 Requiring exterior chemical storage spaces to be equipped with overhead UV protection is a costly update that many existing aquatic facilities or venues may not be able to accommodate structurally, even upon a substantial alteration. This section should apply exclusively to new	This section only applies to new facilities; refer to the first sentence of Section 2.

allow for seasonal adjustments, including shutdown periods, to filtration and recirculation systems when aquatic facilities and venues are not open to the public.	
3-503.1 (E) This section should be amended to allow for the use of food grade salt for operation. Food grade salt is of a higher quality than pool grade salt and is preferred by many salt generators. It is unclear to us what public health goal is furthered by prohibiting operators from using a higher grade of salt, should they wish to do so.	Chemicals used for pool maintenance are designated as such due to their specific concentrations, and inert ingredients. Just as baking soda is the chemical equivalent to soda ash and bleach is the equivalent to liquid chlorine, neither household product is appropriate for pool maintenance. The active ingredient concentration is different than the product designated for pool maintenance and they may contain inert ingredients that may negatively impact the overall pool chemistry. Pool salt is designed to optimize the reaction to form chlorine ions used to disinfect swimming venues, and thus is the appropriate product.
3-503.2 (A) (3) This section should be amended to expressly indicate the facility/permit holder may perform the required UV sensor calibration.	The regulation does not specify "Who" conducts the calibration, merely that the "frequency" must be in accordance with the manufacturer's recommendations.
3-503.7 (A) This section should be amended to expressly indicate PPM may be used (or ORP), to be consistent industry measurement standards and practices.	Requirement is in line with current industry standards
3.503.1-(B) 3 It is unclear to us the benefit derived from reducing the maximum bromine level considering it has a lower reaction time than chlorine. This section seems counterintuitive to us. We request SNHD amend this section to establish parity between the maximum allowable levels of bromine and chlorine.	From the Annex of the Model Aquatic Health Code – Minimum Bromine Concentrations Bromine concentrations established by state and local jurisdictions have not been found to correlate with data supporting the concentrations being used. However, every state or local jurisdiction that allows bromine as a disinfectant requires bromine at higher concentrations than CHLORINE and almost twice as much in SPAS and warmer POOLS. Commercially available test kits are not capable of distinguishing free bromine (Br2, HOBr, OBr-) from combined bromine (bromamines). The bromine value specified in test results is the concentration of total bromine, not the free available halogen that is tested with CHLORINE. To determine total bromine, test kit manufacturers use a CHLORINE value and multiply it by 2.25. The 2.25 conversion factor accounts for the molecular weight difference between elemental bromine and elemental CHLORINE (Br = 79.90 grams per mole and Cl = 35.45 grams per mole). Further, presently used field test kits assay only for total bromine. Bromine is commonly used in indoor commercial SPAS, probably due to these two factors. First, bromamines (bromine and ammonia combined) do not produce irritating odors as do chloramines. Second, bromine efficacy is less impacted than CHLORINE'S at a higher pH, which typically occurs in a SPA environment. At pH of 7.5, 94% of bromine is HOBr, whereas at the same pH, HOCl is 55% in chlorinated water. At pH of 8.0 bromine still has 83% HOBr, while in a chlorinated water, HOCl is 28%.346 Bromine is also not very common in outdoor POOLS because like CHLORINE, bromine is destroyed rapidly in sunlight. CYA was developed to combat the problem in chlorinated POOLS, but does not provide a stabilizing effect for bromine. While reviewing the literature and surveillance data from CDC, evidence that outbreaks have occurred when required minimum bromine concentrations

have been maintained is lacking. Therefore, in absence of any clear research, the decision to use common state requirements as the recommended levels is prudent. SPAS have been implicated in many skin disease outbreaks throughout the years. One paper suggests that a common culprit, Pseudomonas aeruginosa, were rapidly reestablished in SPAs (less than 103 cells per mL) when disinfectant concentrations decreased below recommended levels (CHLORINE: 3.0 ppm (mg/L); bromine: 6.0 ppm (mg/L)). The authors studied the reoccurrence of bacteria following cleaning and halogen shock treatment 347 . This study emphasized the need for maintaining a consistent CHLORINE level in the SPA. CDC recommends 4-6 ppm (mg/L) for bromine. The MAHC recommends a follow up study to evaluate the efficacy of bromine on P. aeruginosa, since it is so commonly found in SPAS; and because bromine is very common disinfectant used in SPAS, prevention and treatment is essential. There are few peer-reviewed studies on bromine efficacy in real world POOLS and SPAS in the literature. Brown et al. reported reasonable bacterial control with 2.0 ppm total bromine in an 118,000 gallon (447 m3) INDOOR POOL using BCDMH348. Normal day time BATHER COUNTS were around 0.21 persons per 500 gallons (1893 L) per hour but often increased to as high as 0.85 in the evening. The POOL did not use supplemental OXIDATION but did replace 5% of the water daily which likely contributed to the low reported ammonia nitrogen and organic nitrogen. Shaw reports a retrospective analysis of brominated and chlorinated semi-public SPAS in Alberta.349 The data used was from the microbiological results of the weekly samples required under provincial regulations. The treatment systems compared include BCDMH (OXIDATION method not specified), bromide salt regenerated by HOCl/potassium monopersulfate continuous feed, CHLORINE gas, hypochlorite (type not specified), dichlor, and trichlor. The concentrations were generally in line with provincial regulations of 2 ppm (mg/L) total bromine and 1 ppm (mg/L) free CHLORINE. The brominated SPAS had a higher failure rate in all three bacterial parameters. There were several complaints of both contact dermatitis and Pseudomonas folliculitis from the brominated SPAS during the period studied, but due to the nature of the retrospective studies, it was not possible to link the reported RWIs to the concentration of the disinfectant at the time of the complaint. It appears from composite data that when semi-public SPAS are operated using the U.S. EPA minimum halogen concentration of 1.0 ppm (mg/L) free CHLORINE or 2 ppm (mg/L) total bromine that Pseudomonas aeruginosa can be isolated from the brominated SPAS at greater than twice the frequency than from chlorinated SPAS.

Bromates

Ozone and bromide ions in water form HOBr and bromate ions. Bromates have been classified by the IARC as having sufficient evidence of carcinogenicity in laboratory animals. As a result, WHO has set a provisional drinking water guideline value of 10 ug/L. The U.S. EPA has established a maximum CONTAMINANT level of 10 ug/L for bromate in drinking water. BCDMH (1-bromo-3-chloro-5, 5-dimethylhydantoin) is the most common

	form of bromine used in commercial POOLS and SPAS today. The function of DMH is to inhibit the formation of bromates. At present there is little information on the functionality of using DMH in this manner. Since there is not a convenient field test kit available, an operator has no way of knowing what the DMH level is in the water or when it may go below 10 ppm (mg/L) to allow bromates to form. We also do not know what the maximum safe level of DMH should be. To rely on DMH for bromate prevention, suitable test methods and further research are necessary. Operators should consider that ozone should likely not be used with bromine systems when there is a substantial likelihood of ingestion of the water. When ozone is used in conjunction with organic bromine sources (BCDMH or DBDMH—another common source of bromine), the ozone readily converts residual bromide ion back to HOBr. This process reduces ozone. With the continued addition of BCDMH, DBDMH, or sodium bromide, the bromide levels will continue to climb in the POOL or SPA. Continuous build-up of bromide will constantly reduce ozone; diminishing ozone's effective OXIDATION (and destruction) of organics and microorganisms in the water. Because of the wide variation in the concentration of bromide and the potential for bromate ingestion at least one ozone manufacturer does not recommend the installation of ozone units in bromine-treated facilities. Disinfection DISINFECTION using bromine is more complex but less well documented than DISINFECTION using CHLORINE. HOBr is the putative biocidal chemical species at recreational water pH. HOBr reacts with inorganic ammonia and forms monobromamine, dibromamine, and nitrogen tribromide, depending on the pH and concentration of ammonia. These inorganic bromamines are all considered more biocidal than their corresponding CHLORINE analogs. HOBr is converted to inert bromide ion upon biocidal action in a manner similar to that seen with HOCl. One key difference between bromine and CHLORINE DISINFECTION is that bromide is readily OXIDIZED back to HOBr and chloride is not. Further, HOBr is a much weaker OXIDIZER than HOCl. As a consequence of these two differences, exogenous OXIDATION of brominated waters (e.g. shocking with CHLORINE) is more important for safe operation than it is in chlorinated waters. In reviewing the published epidemiological studies on RWIs, it is often difficult to determine the exact treatment system used because the SUPPLEMENTAL TREATMENT SYSTEM is not described. Further, presently used field test kits assay only for total bromine and are not capable of distinguishing free bromine from biocidal inorganic bromamines or from non-biocidal organic bromamines. Bromamines Current POOL and SPA operating manuals state that combined bromine (bromamines) is as efficacious as free bromine. This may be an over generalization of the complex nature of bromine chemistry. Bromine reacts with inorganic ammonia and forms analogous compounds (Br2, HOBr, monobromamine, dibromamine, and nitrogen tribromamide) depending on the pH and concentration of ammonia. 351 All three bromine-

	ammonia derivatives are biocidal, but all three are also less stable than their corresponding CHLORINE compounds. As with their CHLORINE analogs, the ratios of the bromamines are highly dependent on the ratio of ammonia to bromine. Further, at low ammonia to bromine ratios the biocidal action appears to be substantially reduced352. The levels of ammonia that result in loss of bromine efficacy have been detected in SPA water353. At these documented concentrations of bromine and ammonia, the predominant bromamine is most likely dibromamine, which has an estimated half-life of 10 minutes354. The MAHC was not able to locate data on the efficacy of organic bromamines.

construction for which an application is submitted after the effective date of these regulations, if adopted.	
2-802.2/ 2-804.2/ 2-804.3 These sections will require many existing spas to install additional drinking fountains, cleansing showers, and rinse showers for which there may not be adequate space or infrastructure, even upon a substantial alteration. These sections are additional examples of requirements that will place undue burden on existing aquatic facilities or venues, many of which will have to delay or forgo certain improvements or redevelopment that may trigger compliance with these regulations. Again, these sections should apply exclusively to new construction for which an application is submitted after the effective date of these regulations, if adopted.	2-802.2 and 2-804.3 are existing requirements. The Cleansing Shower requirement is less strict than the current Shower requirements and deferring to the building department for the number of fixtures is also less restrictive and eliminates confusion for operators.
2-901.4 The SNHD should include in this section objective, measurable criteria and standards for determining whether an aquatic facility or venue does not have "a dependable disinfection system and filtration systems or is failing to maintain such systems in accordance with these regulations," inclusive of metrics which may be used to determine when a disinfection system has returned to "dependability" or is operating "in compliance with these regulations." The existing language is overly broad, will cause uncertainty among operators, and gives too much discretion to SNHD to mandate third-party water testing.	This requirement and the verbiage regarding a dependable disinfection and filtration system is directly out of the NAC.
2-1002.10 Many existing spas, including certain resort hotel spas, do not run on timers due to guest service standards and concerns. Requiring existing spas to contain an agitation system connected to a minute timer, particularly one that does not exceed 15 minutes, is a standard devoid of consideration for the guest experience paramount to the success of resort hotels. This section should be re-written to allow for reasonable alternatives to mandatory timers, such as a signage display advising guests of the maximum continuous amount of time they should spend in the spa. This section should allow for such alternatives in all cases, including for existing spas, substantial alteration to an existing spa, and new spa construction.	This section only applies to new facilities; refer to the first sentence of Section 2.
2-1004.1 (B) This section should apply exclusively to new construction for which an application is submitted after the effective date of these regulations, if adopted. A substantial alteration of an existing wave pool should not force requirements for a perimeter deck where bathers gain access to the wave pool at the shallow or beach end, particularly if such a substantial alteration is completely unrelated to the area. Certain wave pools have operated in a safe and consistent manner for decades. These same wave pools would have to be completely reconstructed to comply with this section. Desired improvements or redevelopment of an existing wave pool should not be delayed or hindered by requirements contained within these regulations, which will be triggered upon a substantial alternation.	This section only applies to new facilities; refer to the first sentence of Section 2. Also, ALL existing wave pools in Clark County are designed in a way to encourage patrons to enter from the shallow or beach end.
3-202.2 (A) - (D) The language requires that an operator	The mechanical inventory refers to all of the equipment

maintain a "comprehensive inventory" of all mechanical equipment associated with each aquatic venue," and to make such inventory "available" at the aquatic venue. The language is overly broad and should expressly enumerate the types of equipment deemed by the SNHD to be "mechanical equipment." In addition, SNHD should be required to maintain and regularly update the list of "mechanical equipment" and to make it available to operators. Such a list will provide operators with the certainty and predictability they need to comply with this section. Moreover, this section should be amended to expressly state that "shall be available" means the operator shall have a reasonable amount of time to produce a comprehensive inventory or operating manual upon the request of an inspector, and that electronic material are acceptable substitutes for hard copy operating manuals.	installed for a specific venue in the pump room. Any pool maintenance professional should be able to provide this information with little effort. Since every component attached to the piping of the recirculation system can impact the system flow and ultimate function from one degree to another, this information is of value to the facility as much as SNHD. It can be of great use when passed on from one operator to the next when pool maintenance staff change. SNHD does currently have an inventory of all major equipment installed on each venue.
3-407.1B It is our understanding that SNHD intends to amend this section to require that beverages in a covered container may be consumed while in or partially in an aquatic venue, provided such container is made of "durable" or "non-crushable" material. This section should be amended to clearly define or describe acceptable plastic containers which may be used to contain beverages while in or partially in an aquatic venue. Such a definition or description should be construed liberally to discourage consumers from attempting to refill a plastic container with multiple beverages purchased at lower cost. Reuse of beverage containers is inconsistent with the goals and objectives of these regulations. We submit that a plastic container affixed with a cover and that cannot be torn, crushed, or broken by a gripped human hand to the extent it becomes unusable or will not hold a liquid substance is an acceptable way to define or describe a "durable" or "non-crushable" container.	This subject was discussed at length during the separate set of Public Workshops. Refillable containers of a heavy plastic design would easily meet this requirement.
3-501.1 (A) This section will substantially increase energy consumption and costs, restricting many resort hotels from furthering their corporate environmental and sustainability goals. It is completely unnecessary to require recirculation systems to operate 24-hours a day when the standard maximum turnover time for a pool is 12 hours. There should be an allowable recirculation shut down period (not just a reduction) under certain circumstances so that facilities may operate more efficiently and realize some degree of energy savings. At a minimum, this section should be amended to	Not certain of your information source regarding the standard maximum turnover time. This requirement is consistent with the national standard and current practice of the vast majority of the Recreational Aquatic Industry in Clark County.

2-1002.3 recommend referencing 2.304	Reference added
2-1002.4 confusion expressed regarding A	Section A removed – did not add value to the document
2-1002.4 Recommendation to provide a minimum distance for construction between adjacent bodies of water with a method to prevent cross contamination of the water between venues	Language added
2-1003.5 recommendation to add a reference to the stair section	Reference added
2-1009.2 concern expressed about requiring a secondary disinfection system on pools and spas associated with party venues	Party Pools and Spas section removed
2-1009.3 concern expressed about requiring a certified operator on site during all hours of operation at party pools and spas	Party Pools and Spas section removed
3-407.1B Request for a modification that would allow beverages to be consumed in the pool	Added – "Beverages in a durable covered container may be consumed while in or partially in the aquatic venue."
3-503.1C recommended adding wading pools to the list of aquatic venues that prohibit the use of Cyanuric acid or stabilized chlorine.	Additional requirement was not added
3-503.3C Concern expressed about the requirements associated with chlorine dioxide when it is used to treat the entire facilities water system	Added in wording chlorine dioxide "added through the recirculation system" shall...
3-503.5 Concern about the need to install chemical controllers – space restrictions and expense – no designated time frame for compliance	A 2 year compliance window for increased risk venues and a 5 year compliance window for all other venues was added for meeting this requirement and the equipment was priced out between $1,500 - $5,500, depending on the features they provide. The space requirements for this system can be minimal.
Request for clarification on pool maintenance duties that require a CPO.	Added in wording to the Qualified Operator definition outlining duties.
4-303.2 Concern that adding in the 2000 square foot relationship for lifeguard requirements would be interpreted to supersede other visual requirements subsequently listed.	Wording was added to reinforce that lifeguard coverage is inclusive of all aspects listed in this section.
4-303.2A Revised wording for this section was provided	Revised wording was incorporated into the document
4-303.3 C Some industry representatives took issue with the requirement of a 10 minute alternation of tasks from patron surveillance every 60 minutes.	Removed the time requirement of at least 10 minutes and added in station rotation as an option for breaking up the surveillance task
4-303.3 C Industry member brought up a concern that the revised wording did not allow for sufficient relief of patron surveillance to encourage proper attentiveness during surveillance activities	Incorporated language from the 2016 MAHC
4-401.4K The option of using a guest book to monitor daily attendance caused confusion for some industry members	Wording was removed for clarity
4-401.5 Concern about revealing staff's personal information with the requirement to produce lifeguard certifications to patrons	Requirement removed
4-402.2I Some industry members object to the wording "Do not poop or pee in the water"	Wording does not have to be specific, it just must convey the listed information.
4-502.2 A initial wording of section was awkward	Revised wording for clarity
4-601 Industry member expressed concern with having to operate their venue at all times with approved levels of disinfectant due to the initial drop when a large number of	Operating without sufficient disinfectant levels is an Imminent Health Hazard and is a definitive sign of a condition that should result in closure of the facility by management staff long before

bathers enter a pool	SNHD staff is present to diagnose the situation.
5-601.1 Request for further clarity as to the meaning of adequate supervision and staffing	Wording was revised: Adequate supervision of children and required lifeguard, attendant, and qualified operator staffing
These regulations, if adopted, should not go into effect or be enforced, in whole or in part, at any time prior to April 1, 2018. It is unreasonable and impractical to expect operators to be prepared to comply with these regulations any sooner, particularly for the 2017 pool season.	This would limit SNHD's flexibility in allowing for facilities to construct new venues utilizing the waiver process and for any existing establishments to operate outside of the parameters allowed in the Nevada Administrative Code without a variance approved by the Board of Health.
As previously requested, any provision that speaks to the design, infrastructure, or physical attributes of an aquatic facility or venue should apply exclusively to aquatic facilities or venues for which a new construction permit application is submitted following the effective date of the regulations.	Substantial alterations to aquatic venues are projects that are so extensive that it is nearly equivalent to a new construction project. There is no difference between coming in to compliance with the proposed Aquatic Facility Regulations following a Substantial alteration and the building department requiring a remodeled home to come into compliance with applicable building codes.
Prior to any public hearing on these regulations, we respectfully request the opportunity to hold additional detailed discussions with SNHD staff to offer input and better understand the preliminary proposal to accept waiver applications for "party pools."	The waiver process for the pool parties was put into place in direct response to industry's comments/testimony received during the October Public Workshops held at SNHD. Members from industry stated that as responsible business owners, those who conduct pool party type operations have currently put into place conditions that protect the health and safety of their respective patrons. They argued that each operation is different, that it is not appropriate to lump all of these type of operations into one category and that the industry should be allowed the flexibility to personally tailor how public health and safety concerns are addressed at each unique facility. This recommendation fit perfectly into the waiver process that already existed in the proposed regulations. As such, all specific language requiring facilities to meet a uniform set of standards was removed in favor of allowing industry the freedom to provide SNHD with a plan unique to each operation on how the health and safety concerns will be addressed when operating outside the routine requirements established by both the current state law and the proposed regulations.
It is our understanding that the density factors prescribed will apply to new construction or the substantial alteration of an aquatic facility or venue; however, the density factors prescribed in this section will substantially reduce the allowable occupancy at certain aquatic venues, such as lazy rivers and wave pools. The justification for applying such stringent density factors to certain aquatic venues are based primarily on square footage and do not adequately contemplate environmental circumstances or safeguards unique to each venue, such as access, egress, and lifeguard and security staffing. Moreover, the density factors are likely to substantially diminish the guest experience at many resort hotel aquatic venues. We recommend that SNHD re-evaluate the prescribed density factors and more closely align them with reasonable	This requirement would not change the occupancy level for lazy rivers, but would apply specifically to wave pools for the very rational provided in the statement above when considering "environmental circumstances or safeguards unique to each venue" as it applies to the wave action inherent to this type of venue which creates increased visibility challenges for lifeguard staff. A lower bather density is appropriate in this scenario. If a wave pool operator would like to increase their bather capacity, they are welcome to apply for a waiver.

ATTACHMENT

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Southern Nevada Health District

PUBLIC NOTICE

NOTICE IS HEREBY GIVEN that a public hearing will be held before the Southern Nevada District Board of Health (BOH) on Thursday, November 17, 2016, at 8:30 a.m. in Red Rock Conference Room at the Southern Nevada Health District (SNHD) Public Health Center, 280 South Decatur Boulevard, Las Vegas, Nevada, pursuant to Nevada Revised Statute 439.366, to take testimony and consider the adoption of the proposed Southern Nevada Health District Aquatic Facility Regulations. These proposed Regulations will update the existing Regulations and mirror the Model Aquatic Health Code and be a comprehensive directive to standardize how aquatic facilities are regulated. In the event the Regulations are not presented at the November 17, 2016, meeting, they will be presented for PUBLIC HEARING at the BOH regular monthly meeting on January 26, 2017, at 8:30 a.m. in Red Rock Conference Room at the SNHD Public Health Center.

Copies of the proposed Regulations are available for review in the Environmental Health Division, 333 North Rancho Drive, Suite 450, Las Vegas, Nevada, between the hours of 8:00 a.m. to 4:30 p.m. A copy of the Aquatic Facility Regulations may be requested at that time at a charge of one dollar per page. The same may be viewed on the SNHD website, www.southernnevadahealthdistrict.org/public-notices.php, or emailed upon request to Bonnie Archie, at archie@snhdmail.org. If there are special viewing needs, please contact Mrs. Archie for assistance.

A Small Business Impact Statement will be available at the scheduled workshops, and is available on the SNHD website, www.southernnevadahealthdistrict.org/public-notices.php.

All interested persons may appear at the PUBLIC HEARING and submit data, views or arguments regarding the proposed Regulations. Written data, Views and arguments may also be submitted before October 28, 2016, to Jacquelyn Raiche-Curl, Environmental Health Supervisor, Southern Nevada Health District, P.O. Box 3902, Las Vegas, NV 89127, or emailed to raiche-curl@snhdmail.org. The District Board of Health will consider fully all written and oral submissions on the proposed Regulations prior to taking action thereon. Questions may be directed to the Southern Nevada Health District's Environmental Health District's Environmental Health Division at (702) 759-0571.

Jacqueline L. Reszetar, REHS
Director of Environmental Health

9/27/16
Date

Prior to the PUBLIC HEARING at the BOH meeting on November 17, 2016, there will be three WORKSHOPS for the public to present its views on the proposed Southern Nevada Health District Aquatic Facility Regulations, to include the impact on small businesses:

1. October 17, 2016, Monday, 9:00 a.m., Southern Nevada Health District Public Health Center, 280 South Decatur Boulevard, Las Vegas, in Red Rock Conference Room.

2. October 17, 2016, Monday, 2:00 p.m., Southern Nevada Health District Public Health Center, 280 South Decatur Boulevard, Las Vegas, in Red Rock Conference Room.

3. October 20, 2016, Thursday, 5:00 p.m., Southern Nevada Health District Public Health Center, 280 South Decatur Boulevard, Las Vegas, in Red Rock Conference Room.

Southern Nevada Health District

PUBLIC NOTICE

NOTICE IS HEREBY GIVEN that a public hearing will be held before the Southern Nevada District Board of Health (BOH) on Thursday, January 26, 2017, at 8:30 a.m. in the Red Rock Conference Room at the Southern Nevada Health District (SNHD) Public Health Center, 280 South Decatur Boulevard, Las Vegas, Nevada, pursuant to Nevada Revised Statute 439.366, to take testimony and consider the adoption of the proposed Southern Nevada Health District Aquatic Facility Regulations. These proposed Regulations will update the existing Regulations and mirror the Model Aquatic Health Code and be a comprehensive directive to standardize how aquatic facilities are regulated. In the event the Regulations are not presented at the January 26, 2017, meeting, they will be presented for PUBLIC HEARING at the BOH regular monthly meeting on February 23, 2017, at 8:30 a.m. in the Red Rock Conference Room at the SNHD Public Health Center.

Copies of the proposed Regulations are available for review in the Environmental Health Division, 333 North Rancho Drive, Suite 450, Las Vegas, Nevada, between the hours of 8:00 a.m. to 4:30 p.m. A copy of the Aquatic Facility Regulations may be requested at that time at a charge of one dollar per page. The same may be viewed on the SNHD website, www.southernnevadahealthdistrict.org/public-notices.php, or emailed upon request to Bonnie Archie, at archie@snhdmail.org. If there are special viewing needs, please contact Mrs. Archie for assistance.

A Small Business Impact Statement will be available at the scheduled workshops, and is available on the SNHD website, www.southernnevadahealthdistrict.org/public-notices.php.

All interested persons may appear at the PUBLIC HEARING and submit data, views or arguments regarding the proposed Regulations. Written data, views and arguments may also be submitted before December 9, 2016 to Jacquelyn Raiche-Curl, Environmental Health Supervisor, Southern Nevada Health District, P.O. Box 3902, Las Vegas, NV 89127, or emailed to raiche-curl@snhdmail.org. The District Board of Health will consider fully all written and oral submissions on the proposed Regulations prior to taking action thereon. Questions may be directed to the Southern Nevada Health District's Environmental Health District's Environmental Health Division at (702) 759-0571.

Jacqueline L. Resetar, REHS
Director of Environmental Health

10/31/16
Date

Prior to the PUBLIC HEARING at the BOH meeting on January 26, 2017, there will be three WORKSHOPS for the public to present its views on the proposed Southern Nevada Health District Aquatic Facility Regulations, to include the impact on small businesses:

1. November 18, 2016, Friday, 1:00 p.m., Southern Nevada Health District Public Health Center, 280 South Decatur Boulevard, Las Vegas, in the Red Rock Conference Room.

2. November 28, 2016, Monday, 10:00 a.m., Southern Nevada Health District Public Health Center, 280 South Decatur Boulevard, Las Vegas, in the Red Rock Conference Room.

3. November 28, 2016, Monday at 2:00 p.m., Southern Nevada Health District Public Health Center, 280 South Decatur Boulevard, Las Vegas, in the Red Rock Conference Room.

Southern Nevada Health District

AMENDED: PUBLIC NOTICE

NOTICE IS HEREBY GIVEN that a public hearing will be held before the Southern Nevada District Board of Health (BOH) on Thursday, July 27, 2017, at 8:30 a.m. in the Red Rock Conference Room at the Southern Nevada Health District (SNHD) Public Health Center, 280 South Decatur Boulevard, Las Vegas, Nevada, pursuant to Nevada Revised Statute 439.366, to take testimony and consider the adoption of the proposed Southern Nevada Health District Aquatic Facility Regulations. These proposed Regulations will update the existing Regulations and mirror the Model Aquatic Health Code and be a comprehensive directive to standardize how aquatic facilities are regulated. In the event the Regulations are not presented at the July 27, 2017, meeting, they will be presented for PUBLIC HEARING at the BOH regular monthly meeting on August 24, 2017, at 8:30 a.m. in the Red Rock Conference Room at the SNHD Public Health Center.

Copies of the proposed Regulations are available for review in the Environmental Health Division, 333 North Rancho Drive, Suite 450, Las Vegas, Nevada, between the hours of 8:00 a.m. to 4:30 p.m. A copy of the Aquatic Facility Regulations and the Business Impact Statement may be requested at that time at a charge of one dollar per page. The same may be viewed on the SNHD website, www.southernnevadahealthdistrict.org/public-notices.php, or emailed upon request to Bonnie Archie, at archie@snhdmail.org. If there are special viewing needs, please contact Mrs. Archie for assistance.

The proposed Regulations were considered by the BOH at the February 23, 2017, meeting, at the SNHD Public Health Center. At the request of the BOH, the Business Impact Statement was reinitiated. A new comment period for the business impact statement was conducted between April 3, 2017, and April 27, 2017. In addition, a properly noticed public meeting was held on April 27, 2017 to receive any additional comments or concerns regarding the impact the proposed Regulations may have on businesses. The proposed Regulations were revised based on comments received from members of business and industry.

All interested persons may appear at the PUBLIC HEARING and submit data, views or arguments regarding the proposed Regulations. Written data, views and arguments may also be submitted before July 20, 2017 to Jacquelyn Raiche-Curl, Environmental Health Supervisor, Southern Nevada Health District, P.O. Box 3902, Las Vegas, NV 89127, or emailed to raiche-curl@snhdmail.org. The District Board of Health will consider fully all written and oral submissions on the proposed Regulations prior to taking action thereon. Questions may be directed to the Southern Nevada Health District's Environmental Health District's Environmental Health Division at (702) 759-0571.

Jacqueline L. Reszetar, REHS
Director of Environmental Health

6-26-17
Date

Prior to the PUBLIC HEARING at the BOH meeting on July 27, 2017, six WORKSHOPS were held for the public to present its views on the proposed Southern Nevada Health District Aquatic Facility Regulations, to include the impact on businesses:

1. October 17, 2016, Monday, 9:00 a.m., Southern Nevada Health District Public Health Center, 280 South Decatur Boulevard, Las Vegas, in the Red Rock Conference Room.

2. October 17, 2016, Monday, 2:00 p.m., Southern Nevada Health District Public Health Center, 280 South Decatur Boulevard, Las Vegas, in the Red Rock Conference Room.

3. October 17, 2016, Thursday, 5:00 p.m., Southern Nevada Health District Public Health Center, 280 South Decatur Boulevard, Las Vegas, in the Red Rock Conference Room.

4. November 18, 2016, Friday, 1:00 p.m., Southern Nevada Health District Public Health Center, 280 South Decatur Boulevard, Las Vegas, in the Red Rock Conference Room.

5. November 28, 2016, Monday, 10:00 a.m., Southern Nevada Health District Public Health Center, 280 South Decatur Boulevard, Las Vegas, in the Red Rock Conference Room.

6. November 28, 2016, Monday at 2:00 p.m., Southern Nevada Health District Public Health Center, 280 South Decatur Boulevard, Las Vegas, in the Red Rock Conference Room.

ATTACHMENT

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WORKSHOP FOR PROPOSED AQUATIC HEALTH REGULATIONS
MONDAY, OCTOBER 17, 2016
2:00PM

PUBLIC PRESENT:
Ryan Tawey: MGM
Pooneh Mector: Aria
Ryan Arnold: The D
Jim Jones: SNHD Advisory Board
Alex Stokes: Wynn Las Vegas
Allison Moderson: Wynn Las Vegas
Bob Barth: Cosmo
Cara Evangelsta: Accurate
Brisa Soto: Accurate
Scott Baker: MGM
Liz Lozoya: ACEP, LLC
Gary Knurbein: Quality One Pool Management
Matt Tiffany: TAO Group
Bob Wiecek: Quality One Pool Management
Michelle Flater: Wynn Las Vegas
Penny Trombi: ptrobia@abinv.com

SNHD STAFF PRESENT:
Paul Klouse
Jeremy Harper
Jacque Raiche-Curl
Al Karns
Candice Sims

Paul
Good afternoon. Welcome to the Public Workshop for the Southern Nevada Health District Aquatic Facility Regulations. These meetings are being held according to Southern Nevada statue 439 .366 to take testimony under the proposed Southern Nevada Health District Aquatic Facility Regulations. These proposed regulations will update the existing regulations in order to provide aquatic health care and be a comprehensive directive to standardize how aquatic facilities are regulated. In the event of the regulations not being presented on the overhead on November 11th team meeting, it will be presented at the public hearing at the board of health meeting on January 26th. Both those meeting at 8:30am in Red Rock Conference Room. Notices have been given set by NRS 233B and NRS 341. Public comments will be accepted until November 27th. And now I will turn it over to Jacque Raiche-Curl and to my right is Jen Hurd, Aquatic Health Supervisor

JRC
Good afternoon. Is there any of you returning from this morning session, I welcome you back. I would ask that any comments in regards to this morning's session please leave alone, they do not

to be reiterated because we do have those on record already. If you do have comments, please step up to the microphone at the podium and state your name and your affiliation or your home address. We will be going thru section by section just to keep in orderly so that we can identify the area that you are speaking on. So before we start with our initial comment of our regulation, if there is not any general statements that they would like to make at this time. Seeing none, we are going to proceed to the public comment area. We are going start with chapter 1 on one of the definitions. Does anyone have any feedback on the definitions?

Cara Evangelista: Accurate
I did have a question about the definition (problem with microphone).....
The definition of pool and spa, here on page 9 – but I wanted to make a comment that in section 4-601 that there's something called an event that is not defined. And I know that we had talked earlier about that it's going to be looked at to redefine the whole day club section but if there's going to be regulations at an event versus a regular day pool what would that be and I would like that redefined, an event versus a regular day pool.

JRC
Any other comments on the definitions. Was everyone able to hear what she said or do I need to recap. I am see shaking of heads in the back. Any other comments on the definitions? We are good? Alright Chapter 2, Section 2-1 under plan submittal, new construction and substantial alterations, content of design report, plan approval and compliance certificate. Section 2-2 Materials, pools and indoor aquatic facility.

?????????????
I have a questions going back to 102.2. B9, it just says lighting. Lighting and photometric. Is that area lighting?

Al
That is area. They are going to give us a plan of the deck area or feed around the pool.

???????????
Should you put the word area lighting and photometric in there cuz I could interpret that as underwater lighting cuz it just says lighting? Then you go to B10, pool markings, I'm not sure cuz we don't have a definition of pool markings so is that like where the restrooms are, where the deck of the pool and just specifically to that marker?

JRC
Depth markers and depth changing the lines– all of that.

?????????????
Well, it's a little fague. I don't understand what pool markings mean, either. Last but not least, under 102.2.

JRC
102.3?

???????????
102.2G and at the very last one it says and diaper changing stations. Detail skill and drawings shall show the following: if diaper changing stations are required.

JRC
If they have them they need to be in there, otherwise.

??????????
Should we add the words if required?

JRC
If present.

??????
If present, we can do that because honestly I don't know when honestly when diaper changing stations are required. So, only if they're present do they need to be. Thank you.

Cara
Here's a little better clarification of some specific numbers to help prove that sink in section 2-102.3 and it's that graph there thru that table. 50 square feet per bather so here's the number at one of our properties we are at 1800 square feet and fire code allows 1586 people, now we did the numbers and we are dropping down to roughly 360-400 ppl with this in here.

Al
This is for pool only not for deck. Your fire code is for deck. The whole area. Pool only is all that you are looking at.

Cara
What about depth density? Can you define depth density?

Al
Depth density. Are you saying that is going to drop you down to 300 at 50 square feet. That's fire, what do they say?

Cara
I don't have the figure from fire, I know what we have right now on the day club will drop it down from 1586 to 350 people on the deck. So I understand the water density but then down here this is a new term that I don't know.

?????
You need to check with fire code

Cara
1586 is what they maintain right now for fire code.

Al
Do you know the size of your deck? Do you know what the square footage is?

Cara
18000. So this right here, depending on the definition, we are estimating a $7 million revenue loss on one property and a $39 revenue loss on the other property. So we would have to actually close down because the revenue loss would be so great that they could not do business.

JRC
This number came from, I believe it was county building department.

Cara
You mean talk to fire cuz they are maintaining fire code.

JRC
We will look into it. Any other comments on 2-4? 2-2 Materials? 2-3 Aquatic venue structure? 2-4 Indoor/Outdoor Environment? 2-5 Recirculation System Design, Equipment and Water Treatment? 2-6 Decks and Equipment?

Pooneh Melton - Aria
Not a question, but clarification on 2-6. 2-604 is safety related but it's actually including in barriers and then 2-606 doesn't have anything in the actual verbage so I just wanted clarification.

JRC
Thank you. Anything else for 2-6? 2-6 is where they are talking about the robotic cleaners but it doesn't talk about year so that would be referred back to the topic of pool closed. It doesn't specify robotic cleaners and the time of the pool being closed. 2-7 Recirculation Equipment Room? 2-8 Hygiene Facilities? 2-9 Water Supply and Wastewater Disposal. 2-10 Special Use Aquatic Venues? Chapter 3. 3-1 Operating Permits? 3-2 Aquatic Facility Operation and Maintenance? Closure and reopening to fit into the statement plan? 3-3 Aquatic Venue Structure? 3-4 Indoor/outdoor Environment? 3-5 Recirculation and Water Treatment? 3-6 Decks and Equipment? 3-7 Chemical Storage and Use? 3-8 Hygiene Facilities? 3-9 Special Use Aquatic Venues and Features? Chapter 4 Policies and Management. 4-1 Qualified Operator Requirement? 4-2 Lifeguard Training?

Pooneh Melton – Aria
I just wanted to get clarification on a couple of things. 4-202 Lifeguard Supervisor Training. Is that the same as the red cross offers for the lifeguard management certification?

JRC
Yes

Pooneh
It's the same course? OK. And then the other question I have as well was the, I think it's in the section on the safety class and your entire lifeguard plan. What is the timeline of when, depending on when the regulations get approved, was the review time and approval time to

submit facts to those requesting so that they can do hiring. Cuz we start looking up our requisitions in December so this could prepare us so we have a frame on what that timeframe would be of submitting the plan and getting approval, or questions or whatever the considerations are we have to make?

Jeremy
It would depend on when these are adopted and implemented.

Al
Are you looking for how long it takes us to approve it, once you submit it?

Pooneh
Once it gets approved and it goes into that process, how does that work and what's the plan in terms of getting to a point that we are meeting those requirements if they change or differ from what the current requirements are?

Jeremy
So if it's in the middle of the season, we wouldn't require facilities to submit and change up their entire staffing plan in the middle of the season. So once staffing plans are submitted to us, we will review them and get them back as soon as possible. We have a pretty quick turnaround for things like that. But, like I said I don't anticipate having to do that the middle of the season. But like I said, I don't know how this is going to pan out.

Pooneh
Do we have an idea of when the, we are looking at action?

JRC
Also, if you are planning on continuing on with your existing lifeguard plan, you don't need to submit anything additional for that, you can continue on without it cuz unless you are interested in reducing your lifeguard coverage or altering it.

Poohen
OK

JRC
So as long as you maintain what you currently, what was currently in our guidelines, you should be fine.

Poohan
OK, perfect.

JRC
Any other comments for 4-2? 4-3 Facility staffing?

Client

4-304.4 Attendants are required at each entry and exit point of waterslides or drop slides insufficient numbers?

JRC
So our current regulations in order to have slide access they have to have an attendant.

Candice
We are missing a space.

Paul
In sufficient not insufficient. Good catch.

JRC
Any other comments on 4-3? 4-4 Facility Management?

Brisa Soto – Accurate
4-402.2 Signage. My question is how big does, I know it's spelled out as far as the lettering, but how big does the signage have to be?

JRC
What do you mean?

Brisa
Does the size have to just fit the lettering or does it have to be 8X11 does it have to be 3 feet tall?

Al
We don't have special requirements?

JRC
Just big enough to accommodate.

Brisa
OK. Understand. The other thing is for the day club that allows only 18 or over, can we be exempt from independent applications including children.

Al
Yes, that's the way it is.

JRC
Probably a waiver that would absolutely covers it.

Brisa
OK. My other question is under F. Signage shall be conspicuously placed within 30 feet of each entrance. If we have to have all entrances to only one main public entry, would that be sufficient or does it have to be on regardless if it's public entry or work entry.

JRC
It's public entry, so if the other entrances are restricted to employees only, it would not be required. Is it an entrance to the venue or the facility?

Brisa
It's an entrance before entrance. Does it matter, does it have to be both or just the one before the actual pool.

Al
Entrance to the venue.

Brisa
Entrance to the venue. Understood. Our last comment or recommendation, would be under number 6. Do not poop or pee in the water. We have a lovely discretion on that one. Can we have suggestions on that one, well not fecal matter, but not defecate?

Jeremy
You can certainly do that but again it's a matter of discretion.

JRC
But also to make it understandable because an eight year old can read poop and pee and they can understand. Any other comments for 4-4? 4-5 Fecal/Vomit/Blood Contamination Response?

Client
502.2 Fecal or vomit contamination of the item used to remove the contamination shall be removed....that is confusing to me. I would propose, any items used to remove fecal or vomit contamination must be thoroughly cleaned and sanitized before putting back in use. Or something to that effect.

JRC
OK. Thank you. Any other comments on 4-5? 4-6 Additional Requirements for Special Use Aquatic Venues?

Cara Evangelista – Accurate
Just to kinda add a little bit to 4-601.1 for the EMTs and this would be inconsideration to again wanting to enter when this is not really a course. When there's multiple EMT there on the bench on a busy day, but I would ask that we go back looking at when, we talked about, when an EMT are in there also. And then kind of talk about what the lady talked about the plans coming in. We also have some concerns here on depending on when everything gets approved and everything else and how long til mine and her plans are together and the large amount of plans that you would have submitted at the same time.
I would ask for consideration in the start of the season, cuz the start of the season can be in worse. And, if you submit these plans, is there an associated fee with that.

JRC
With operational plans?

Brisa
We, here on B, it says we have to submit this before the next season. Approved plans in place before resuming operation?

JRC
We currently do not charge a fee for lifeguard coverage plans. That's all under 1.3 which stands for lifeguard coverage plans.

Brisa
So no fees for any?

JRC
No, not for this? Any other comments for 4-6?

Client
The EMT requirement, is there a trigger for a condition of occupancy on which an EMT would be required.

JRC
No we did not nail it down, but we need to readdress the occupancy level because that hadn't been placed in here, yet. But we need to sit down to try to figure that out because that would trigger all of these requirements where as if your occupancy was under a certain percentage? So feedback from your side of that table would be very welcome on that.

Client
I do have another question but I noticed on 2-103.2. Non-substantial alterations. That term is not defined. And I was wondering if that was maybe an oversite.

JRC
No, substantial alterations are defined, so if it is anything less than that then it would be considered a non-substantial alteration.

Client
So you are open to suggestions that you would be requiring an application be made but I think it's important for operators to understand when that would be required. Unless you are saying that anything that isn't a substantial health alteration.

JRC
I believe that is what I was just saying. So a substantial would mean an alteration modification or renovation of the aquatic venue or aquatic facility that would result in an alteration of the water volume, replacement of the showers or replacement of the complete plumbing system or a complete _____ If it doesn't fall into that its non-substantial alteration.

Client
That's probably an area that needs some additional clarification. For instance with a facility with respect to having to replace lighting or whether or not you are initiating a substantial alteration or

not so it's meaningful to have some better understanding of what would be a non-substantial versus a substantial. And I'm sure there's going to be a lot of discussion on that going forward but it's an opportunity to provide more clarity.

JRC
OK. Anything else on 4-6? Chapter 5 Compliance and Enforcement. 5-1 Provision for Conditions Not Addressed in these Regulations? 5-2 Prerequisites for Operation? 5-3 Waivers? 5-4 Responsibilities? 5-5 Enforcement, Inspections? 5-6 Imminent Health Hazards? 5-7 Issuing Report and Obtaining Acknowledgment of Receipt? 5-8 Summary Suspension, Reinstatement and Revocation? 5-9 Suspension or Revocation of Qualified Operator or Pool Company Registration? 5-10 Notice and Service of Notice? 5-11 Abandonment Process? Public Information? Severability Clause? Ok, if there are no more comments on the general comment for the regulations. Does anyone have any additional comments that they would like to provide at this time regarding the process? Or anything else?

Brisa Soto - Accurate
In regards....is it possible to ask for a summary of what you had mentioned of what is going to cause fees. I know a portion of it will include some or a new or different feedback. I know they are working on the sections which require additional fees, apart from a remodel.

Jeremy
These are changes in fees. That's a different process. If there are any need for remodels, we did talk about the possibility of waving some remodels fees for certain things. It now all just depends how we go forward. We talked about waving the remodel fee for controllers. So if that does goes thru and everyone has to install controllers than the fee could be waved but there still is the remodel process so we the paperwork on file. But the remodel fees are open to discussion.

Brisa
What about having to add a secondary system without requiring all _____?

Jeremy
As I said it is open for discussion.

Alex Stokes – Wynn
Under the section 4.601. Water tests must be taken at the body of water and logged hourly. We have facilities closed, ask anyone in this room, and you open up for business and everyone comes in and crashes into the water, you have some sufficient crashes. There's a lot of property and capability to regenerate that in one hour. So are you telling me in an hour, if I'm down below and I'm taking another hour later, I've gotta close the facility. Certainly two or three hours after opening, certainly not one hour. We have to have time to regenerate the chloride level.

Al
So you are saying your chloride level is below?

Alex
All levels crash when you first throw everyone into the water. Jacque you worked pools.

Al
So you are not going to have one ppn even in there.

Alex
Of course very possible that you would have one ppn but you have three or four thousand people.

Al
Don't you have to close it you don't have the accurate chloride in there anyway.

Alex
There's not a facility here that could comply with that. Sir. It takes about two hours or more to bring in back up to above one after the initial crash.

Al
So we raised the chloride levels up to 10 so if you had it up to the high end of that chloride level of that range that still wouldn't keep it above one? Because our range used to be 1 to 5 but now its 1-10 ppn is what you are allowed.

Client
So what you are saying is jack the chloride up to about 10 parts per million before you open.

Al
Correct

Client
So that in that first hour of crash you might drop to 1.5.

Al
Does that work?

Client
It would but it's not pratical.

JRC
I can't imagine any public pool or spa with absolutely no disinfection residual or anything less than a 1. That's our primary method of finding disease.

Alex
Jacque, I know that. I've been doing this for 40 some years. I also know the science of walking in water with a heavy bed of algae. I was just in Minnesota this summer and they opened and I was talking with the staff and they said that it takes up to 3 hours to bring back safe water, no matter what we do. So, if you are saying we should raise it to ten, oversaturate so when people

come in and we get that initial crash then we have time to work with. I'm just saying that if you want an hourly test, most people would not pass, in one hour.

JRC
And under imminate health hazards 5-201.2 failure to provide minimum disinfection.

Alex
That's what I'm saying, why write the reg if you know you can't comply with it, you may say you can comply, but not when you have that initial crash when the bodies walk into the water.

JRC
Thank you.

Cara Evangelista - Accurate
Just to follow up that it was just for day club pools that that's written in there, everyone else. It's just for day clubs, even child pools, even therapy pools, even pools inside the waterpark, the large water parks are not required to do the hour testing. It would just be for day pools.

JRC
So it's the hour testing? Just so I'm clear. I just want to be clear.

Cara
Right, because everyone else is having to have a certified operator three times a week and I think it says in there once a day tests performed by a person who is in charge of the pools.

JRC
OK....Thank you.

Jason Gray – MGM
Quick question on the waiver process. Are you able to bundle multiple requests in one application. Or do they need separate applications.

JRC
You should be able to bundle per body of water. OK, logically, if you want to say I want a waiver.....I think I understand and I just want to clarify. For example, the point about signage, I know there are at least one or two properties out there that don't like to post the children using the spa longer than 10 minutes and they have their health clubs that they don't allow anyone under the age of 18. That would be an equivalent as a blanket for all the spas that that was a provision for. You could do one waiver for them or my understanding would be that you can take one body of water and say these are the things that I would want a waiver for and you have to list how you are going to still comply with the intent of the regulations but all of that for one body of water that we would also be able to considered.

Jason
And the fees. Is it per waiver or is it per waiver application?

JRC
Per application.

Al
We need the list because I just approved 4 of them but we disapproved 2. How is that going to work?

JRC
For one application, your review and so forth for that one application would be one fee. (Conversation....disagreeing)
We're not seeing eye to eye...I'm going to respond to you and you are going to have an opportunity to come back with more information but at the end of the day we are good on 4 but 2 of them are not going to happen.

Jason
The reason that I'm asking is, I don't know how many are in here from Nevada Social ?????
Our position is that an existing facility should not to have to comply to a simple alteration to any of the new regs or sub-standards or minimal physical attributes of a particular venue. We have very complex venues, some facilities comprised of multiple venues so if we wanted to do substantial alterations and there a number of requirements that we physically cannot accommodate. So we are going to have to go thru a very lengthy waiver process and I'm sure we will be asking for multiple waivers just to redevelop. So we sincerely hope that when you go back and look at the comments on the waivers and whether or not it makes sense to require existing facilities and venues to comply with new design construction standards. A lot simply won't be able to do it, the reality is that we won't be able to do it. And that's where the waiver process becomes very important.

Jeremy
So, we have done a lot of variances for multiple bodies of water for multiple venues in one location. So we have done that.

Jason
No disrespect but there is a lot of new plan requirements, lifeguard programs, safety plans, so again no disrespect, but who is going review all of these plans and who is going to absorb to submit and review in a timely manner because the last thing you want is an operator standing by and not being about to do certain things because the plan review workload is so that that is why we hope the regulations pass in the correct form. Is there adequate staffing?

Jeremy
We have, for sure, adequate staffing.

JRC
Are the operational plans going to plan review or are they going to Ops?

Jeremy
It depends on what type of plans, either our ops to plan review.

Jason
Thank you.

JRC
Are they any other additional comments?

Client
Can you just walk us thru next steps? Where does it go? What happens from here?

JRC
OK. So we have another public workshop scheduled on Thursday evening. We will take all the comments that we have from the public workshops as well as any anothers that have been submitted thru email to myself or mailed to the Health District. Compile all of those and take a new look at the existing regulations in construction with those in place and make the revisions as deemed appropriate. For there, also any grammatic corrections. They will be prepared for the board of health, to be presented there. With the arguments up to date. All of this will be transcribed and also presented to the board of health in their packets. And, pending their approval, we will also have a implementation date that we are going to purpose, we haven't determine that one yet. I think we have to sit back and figure out what changes we are going to make first and go on with that before we determine the implementation date.

Client
Out of curiousity, what's the approval process with the board of health. You guys present just like any other entity? They review it? Are there multiple hearings?

JRC
There's one where anyone can make comments and then the comments are collected.at that time.

Client
I'm sure it's been heard before, but for my client, I'm still trying to get a grasp on what has triggered this. I know from time to time updates to the code are necessary but I have one client who needs to be processed and it's been nine days right now and it's going to be a major impact if they can't provide the same amenities as our friends that exists all ready. I'm trying to get my arms wrapped around why we are pulling this up tonight.

JRC
We are trying to get caught up. We currently operate off the Nevada Administrative Code. It's last major update was in 1974. There have been two minor revisions, one in 1988 and one in 1996 but nothing of real substance. Our current regulations require a lot of our contractors to jump thru hoops to do any time of day to day designs. They are required to go thru a very expensive variance process for designs that are considered standard all around the country. This is our way to update our codes and allow for the freedom of the potential of designs without an expensive and extremely time consuming process. It can take 3 to 6 months to get thru the variance process. This way we have, our intent was to implement a waiver process to streamline and have it be much more timely than our current process. As well as have the clients focus on disease and injury in the public recreation area. That's where it came from.

Client
And I appreciate all of that. I think the concern is the potential of putting out some of the day clubs, I mean that's a rather large revenue generator for all the properties. And I'm just, have you had any epidemics where people are reporting issues? That's what I'm focused on? The waiver stuff, I thinks that's all great.

JRC
There are a number of issues that have been reported thru the day club. Unfortunately many of the operators have not provided us up front information, we find out about it thru the back door, often time thru legal proceedings and public records requests. There has been a great deal of comment about the day club and so forth, we are definitely going to have some intense conversations about that and where to go from here. But, please keep in mind everyone that operate a day club today, and are you in compliance with current regulations because that's kind of where we are at. If we throw out the day club operations out the window, which is a consideration right now, we are not throwing anything out, we are going to sit down and discuss it and look at the pros and cons. There have been a number of concerns addressed. We just need to consider what would be the best criteria for them to operate safely under and currently some places operate better than other places. So we need to bring maybe model after some of those places that are at the top of the curve right now to bring up the others. There is nothing off the table right now, there will be consideration. We have had a lot of comments about the day club so they are not being dispelled we just need to sit down and look at the validity of those comments as well as the validity of what is in the regulations now and see where improvements can be made and see what needs to be done to move forward.

Client
Thank you, I appreciate you clarifying that? The last comment I'll make, which is more a question. As you move thru this process, it sounds like this is really the last bit of public interaction with you before you go to the board. I wonder if it makes sense, as we're???, there's quite a distance between what you guys want and maybe what the group wants. Is there a possibility of us having another round of these? You guys are going to make your changes and put something forth. I'd rather have these discussions than go thru board and to have such a disagreement have to play out in front of them. Just an observation.

Brisa
I was just going to pigging back off that because once you guys take these comments back and make the provisions that you deem appropriately and then present them to the board of health. What opportunity other than going to the board of health the day of and we have to figure out whether or not we are upset if any our applications were taken into consideration. And I don't think it's just we show up at 8:30 and we have to quickly go thru and see if this got changed, if this got changed as we are going thru and figure out what we actually present to the board that we don't agree with.

JRC
Prior to the board of health meeting, we will be posting a red-line version of this draft.

I want to say two weeks before. When we get it ready for the board of health it will go up on our website with an announcement as well. And anyone who has signed in and has provided me with your email address thru these public workshops and anyone else who I already have emails for, it will be sent out to them.

Client
Jacque, can you say for everyone that that November public hearing date is off the table because, I can't see how you can go back, have discussions with your staff, red-line the regs and have them done two weeks before a November hearing.

JRC
You will be surprised as to what we can done in a short period of time. It may be off the table but I am not willing to commit to that at this point cuz I still hold hope.

Client
I think what you are setting up here, and this is what I'm trying to convey, is that it's going to be a really ugly meeting.

JRC
It may not be, have hope. You haven't sat down with the revisions, yet. And if you are already shutting down, I haven't shut down. Please don't. I'm asking, we have taken your comments into consideration. There's a lot for us to work thru but I don't think we are as far apart as you might think. We have already had some great discussions.

Client
What I'm asking for is another chance for some good will conversation before it goes to board. Instead of everyone showing up prepared to make lots of comments it would be nice to show up in support. Or had just a few comments. In all of these different processes that I like to participate in that's typically how it goes for a way for us to work some of the kinks out before a hard set date comes up.

JRC
And I would be very open to having public comments but then I run into the time constraints in setting those up with the Board of Health because of public notice requirements. Have faith in the process. I can still take email comments at any time. So when you read the red-line and you think, "Oh no, there's no way, we are still way too far apart", send me an email. We may or may not present in November but I'm hopeful that we can come closer.

Cara Evangelista
The board of Health is saying the 17th but it got moved up.

JRC
No the 17th. Anything else?

Client

Is there a possibility if we could put in a recommendation to view these codes in a year as a committee to say, "OK. That didn't pan out but it was a very good idea". Is that something we can ask the board of health now so they can put it on the agenda. Or would we rather try to finish this up now.

Paul
I'll speak for the board right now that that sort of thing has been been done in the past. Or per regulation.

Client
Is there an official. I go thru the pool cards every three years. It's unfortunate If we don't put those in place now, will it be 2050 before someone looks at these. Would it be possible, or is there a form to fill out or someone to contact. We do need to go over every page more frequently than we do because the industry changes weekly.

JRC
I agree that we need to do it more than once every thirty forty years

Client
I'm only saying twelve months from now to give us the opportunity for the things that we really messed on to fix before we cause any more damage. Because as I understand it, we're done. This goes in, now we have to get another committee together, I would prefer we recommend at least every 3 years. We could be international pool codes if we did another code cycle year after next to catch the inconsistencies that none of us caught.

JRC
OK. We will consider a review process at regular intervals and make that as part of our proposal. Any other comments?

Paul
If not then we will close this public hearing.

JRC
Thank you all for your participation.

WORKSHOP FOR PROPOSED AQUATIC HEALTH REGULATIONS
THURSDAY, OCTOBER 20, 2016
5:00PM

PUBLIC PRESENT:
Rod Hicken: Station Casinos
Scott Simons: Poolscapes, LLC
Ed King: Stratosphere
Jason Gray: MGM
Kate and Larry Calavan: Calavan's
Jason Jege: Stratosphere
Eric Newmark: NVSAA
Susan Brecken: NSVAA
Michelle Flater: Wynn
Gary Knurbein: Quality One Pool Management
Ryan Tanwed: MGM
Susan Fisher: NV Apt. Assoc.

SNHD STAFF PRESENT:
Paul Klouse
Jeremy Harper
Jacque Raiche-Curl
Al Karns
Candice Sims

JRC
Good evening and Welcome. This is a public workshop in accordance with NEC 231 and 243B and our regs. 231.

PK
This workshop is being held pursuant to NRS 4392366 this has been properly noticed according to NRS 233B and NRS 241 for the top store_____ this is required to be the post regulations for the audit health facilities. It is October 20th at 5:06pm.

JRC
We'll open the meeting with general public comment not specific to actual regulations. If anyone has any general comments please feel free to come forward at this time. Each person will be given 5 minutes to make their comments. When you do so please step up to the microphone and podium, state your name, your affiliation or your home address. Does anyone have any general statements at this time?

PK
All right, we will move on to the public comment period in regards to the Aquatic Health Regulations.

JRC
For the regulations, it is a rather large document. There aren't that many people here this time. How many of you have comments on specific questions throughout the regs? One, two, three, four. How many of you have comments for chapter 2 in it's entirety? OK go ahead and we will start with any and all comments for chapter 2.

Scott Simons: Poolscapes
First question on chapter 2, with regard to 20, I'm sorry 3018.10 referring to depth markers.

JRC
2-3018?

Scott Simons
Correct, I think it's more a clarity thing then it is a question.

JRC
There is no 3018,

Scott
30-18.

JRC
OK

Scott
Point one. It says that the no diving warning signs along with the universal diving symbol.

JRC
Does it say either/ or?

Scott
But it doesn't say either/or, it says along with. That would imply I need both. If I'm putting the no diving words on the deck, do I also have to have the symbol?

JRC
No, it was intended as an either/or.

PK
Fix that up. Which one is it?

JRC
3018 subsection. For water depth 5 feet or less all required deck depth markers shall be provided with no diving warning signs along with the universal. You know it does say both.

Scott

If this is something we have to meet with shortly, I would like to get that clarified. And two years is shortly.

JRC
As of today, you would need both. We can discuss either/or when we take them up.

Scott
Just to back up a little bit, on 202.1, I'm not sure that was the intent of what was written there.

JRC
202.1?

Scott
Correct. Referring to interior finish of an indoor facility must meet the 80 percent humidity of moisture content rule.

JRC
You said 202?

Scott
2 Dash 202

JRC
So you are questioning?

Scott
The interior finish of an interior aquatic facility shall be designed. I don't know what you mean by the interior finish. Is that the interior finish of the pool? the interior finish of the room?

JRC
Of the room. The wall finishes and so forth need to be designed so that it can survive in 80% indoor humidity.

Paul
Can we insert the word building or interior building finish or something like that.

Scott
Maybe use something like all finishes on the interior instead of interior finishes. All finishes on the interior. Cuz people like me interpret that as a _____ . But something that says all finishes on the interior must be _____.

Now we are going to bounce back up to 502.4 and I'm going to try to follow along this time. 502.4 app. The base of each skimmer shall be level with all of the scanners within the tolerance of a quarter inch app. Level 2.4 app.

JRC

OK. So the base of each skimmer shall be level with all other skimmers in the pool.

Scott
Is it the base that we are actually referring or is it the face of the skimmer must be level. That was my question.

JRC
I think the intent is just the skimmers should be level to each other within ¼ inch.

Scott
That's way I'm not sure if we should incorporate the word base in there, because you know.

Paul
How about this.

Paul and JRC
Each skimmer shall be level.

Scott
Fair enough. You use the word base and somebody can misinterpret that and try to measure it. Fair enough. Also, while we are on skimmers....there's no mention of having a minimum of two skimmers anymore. For instance, spas. It just says one skimmer per 400 square feet. If I have a 150 feet spa, do I just need one skimmer.

Candice
It's one per every 100 and it's not in the spa section specifically.

Scott
So you have a specification for a spa that's not in the spa section.

Candice
There's some other requirements that are specific to spas that would go above and beyond what we have standard for pools, I can't remember if it's specifically listed in that addition expired section. Hold on.

Scott
The spas that I have are 2-1002.

JRC
OK we are going to have to look at that.

Scott
Fair enough. 2-502.2 referring to the inlets.

JRC
2-502.2? OK.

Scott
There's no mention of a minimum depth of 18 inches anymore. So that will no longer be a requirement? For inlets, being a minimum of 18 inches down? And we're back to that there's no mention of a minimum of two or three inlets per body of water. If they have certain specifications for wake pools are we going to have to include that in spas and wake pools versus the generalized comment that says anything less than 100 square feet like, Candace was saying, would require a minimum of two skimmers and three returns or something to that effect.

JRC
Probably a general statement.

Scott
So the minimum depth that's not mentioned in there now is still going to be a requirement or not to as how far done the returns are? And whether or not we mention the minimum of two or three inlets.
504, secondary disinfecting systems.

JRC
OK

Scott
Under letter B, it says optional secondary disinfecting systems may be installed. Would that be then considered a supplemental?

Al
No, it would just be, it would be a requirement so it would be considered a secondary, it would be supplemental disinfections and then required as a secondary.

Scott
So an optional secondary sanitation can be installed but then you have supplementary later so now I have to try to figure out if my optional is a secondary or a supplemental. And I understand that if it's considered a secondary that it has to meet the requirements of a secondary and as a supplemental it doesn't.

JRC
I think we just need to take off the word optional there.

Scott
I think you are right.

JRC
Because there are circumstances where you would may be as part of your operational plan or whatever you would come out with secondary disinfections and instead they would have meet all those requirements something that doesn't now meet those requirements, that's not required, would be considered supplemental. So I think taking out the word optional there.

Scott
Under 2-604, your barriers. I'm sorry.

JRC
60 what?

Scott
604 – the whole section basically under barriers. There's no mention of the infamous chain link fence. So if we do put a chain link fence up we don't know what the size openings, is it an inch and quarter, does it have to be slated? And I just looked under barriers. Hopefully it's not mentioned later on under maintenance.

Jeremy
That should be addressed so we will make sure.

Scott
The last thing under the number 2 section would be 1009, party pool and spa. I think we talked about it but it also could have been in the drink. You say party pools and spas, are you referring to party spas?

JRC
Yeah

Scott
And I understand that it's in the party pool section and it sounds redundant but it might stop a lot of questions if we just put party pools and party spas.

JRC
OK

Paul
You mentioned that the other day.

Scott
Did we?

Paul
Yesterday

Scott
Well that was it for.....I apologize I did have one thing under general that I should have mentioned.

JRC
OK

Scott
There's no mention of any diving equipment, is that intentional? Or, should we at least put a subsection in there for diving that it must meet the current ASME diving.

JRC
It does say that. It's.....I know it's in here

Scott
It's not under _____ which is where I would think to find it. And I'm OK with you not mentioning it.

JRC
No we referred to another entity for that. Diamond Gordon Pub.

Scott
Thank you very much for your time.

JRC
I am really sorry for everyone in the audience who's probably dizzy from all this scrolling. Alright, going one more time anyone else with comments for chapter 2.

Gary Knurbein: Quality One Pool Management
17 section 2-102. Just a clarification. So anytime that we're changing any equipment, even if it's identical, it has to be cleared thru the authority here? Is that correct?

JRC
Correct. It was more for our records update, so our records would be accurate. Also sometimes, people assume they are doing like for like and it's not always.

Gary
But the way I read this, it doesn't always have to come on a like for like form. We should check with you?

JRC
You're on a replacement. Right?

Gary
Yes

JRC
So, if it's identical or substantially similar, so basically if the stuff it came in are the same. I know, I can't.

Gary

It says done after contacting the health authority to review the changes it doesn't talk about should we still send in a like for like form or is it just a phone call. What does that mean? After contacting?
JRC
The like for like form I think was the intent. We were sticking with the same policies that's in place now, the same procedures outlined on-line. It was just qualifying that.

Gary.
Alright and I wanted, since we're on the section 2-401.7, underwater lighting, page 28.

JRC
OK

Gary
Down on 401.7 number 3 says colored lights must meet the same requirements for illumination as indicated in this section. Is that during inspection, is that period, is that?

JRC
Always. If they're on, they need to be able to illuminate the entire base of that pool, the same way as clear lighting.

Gary
Even just for ambiance or pool not in use.

JRC
Because things always fall in and we need to make sure that we can identify those things, whether it be live, or.

Gary
And that measurement to meet that requirement, that's thru NEC? That's thru? When we go to make presentation from an inspection perspective, what substantiation do you want to meet the standards. Is that an NEC requirement? Is that an UL listing? What is that?

Jeremy
We usually have to get that information for the manufacturer.

Gary
I know that some cases that they have done that, but that hasn't been acceptable to some of the inspectors. That's why I'm trying to understand what is the benchmark that we can all go thru as opposed to making a position.

Jeremy
What it's typically been, if we haven't been able to get information from manufacturers on other lighting as part of the output levels goes, then we haven't been able to approve the other lighting for nighttime use.

Gary
We have been able to get it, but it hasn't been acceptable. That's what I am running into, that's what we are running into. They say they want something from a national person.
JRC
Well if it's a day, walking out there when it's dark and looking at the bottom of the pool and seeing that it's all lit up and you can clearly see would be a final.

Gary
So a visual inspection would be an acceptance type of thing? And again may be you want to just gravitate on this for a little bit in light of drowning here. There's some conflicts that are being created.

JRC
OK

Gary
So that was that one, then I wanted to talk about page 88, section 4-4.1. Operators manual. It indicates that you can either have a printed or electronic format.

JRC
Right

Gary
And then when we go on to maintenance inspection and records keeping There's no discussion per se of about electronic format. And I was curious to what the position would be on electronic format. And then ultimately daily records and daily logs, can we keep those electronically or do have to keep everything on hard copies?

JRC
Electronic would be fine but they need to be available to be reviewed on site during inspection so when you go from property to property, there should be a type of print out that you can give them.

Gary
If it's on property that you are there all the time, we could keep a tablet there.

JRC
Absolutely. Something that we could review.

Gary
Perfect. OK. that's all I have.

JRC
OK, it looks like we are back to chapter 3. Does anyone have comments on chapter 3? So we will go section by section. We have no takers? OK, let's go to chapter 4, then. Policies and Management.

Paul
No specific comments on anything in that section? Alright, move on to 5.
JRC
Chapter 5. The Compliance and ??????????????section. Give you a few minutes to look thru. And, I forgot to say in the beginning if anyone has comments or suggestions for chapter 1 which would be your definitions for this law.

Paul
And we are taking rit comment until October 27th so feel free.

?????????
October 27th ???????????? It mentions thru Monday but says the 28th.

Paul
Does it say 28th?

JRC
The 28th is a Holiday

JRC
No, I meant that it's online so as long as they submit it to me thru the 28th.

Paul
Thank you very much for bringing that up.

JRC
Basically we need them before that Monday so even if you sneek them in there on the 29th or 30th, I will be happy to take them.

Susan Brecken: NVSAA
I'm sorry I missed Section 3.

JRC
OK

Susan
3.504. The official list. I forwarded on Tuesday about the added, the addition of the automated controllers and I just wanted it on the record that it did go the membership and they are willing to provide an account that are opposed to the addition to the regulation. And I just wanted to make sure that would be acceptable.

JRC
Did they have reasons why.

Susan

Yes, it's primarily cost. It's not the equipment itself, it's the space that the equipment would need. Most pools don't have the space and they would have to expand their pool room and which is where the burden of debt would fall on the property of the pool room that are currently existing that are not big enough to accommodate the equipment.

Jeremy
Out of curisouty, approximately how many of the apartment communities are represented by?

Susan
About 316. I have a unit count. Do you want that?

Jeremy
I don't need exact numbers but is that most of the apartment communities represented?

Susan
Most of them. We are at about 1500%

Al
Are they aware it's automatically smaller than how big it actually is cuz they are usually just a little box on the wall.

Susan
It is, but my understanding is that there has to be like a 35 gallon drum? Is there another piece?

Al
Yes, but you can have a cardboard, that's like that big so you don't need big drums in there.

Susan
So we need clarification, we understand that there is the equipment but we felt there were the fees.

Al
There is some concentrated levels of heavier acids but it doesn't have to be a huge drum. There are little cardboards you can get. So, before they say no to this thing, I'd like to maybe see if there is some way we could show them how big and how much room this would take up.

Susan
OK. If I could get information from you as to how much space would be required because they were understanding there would be a 35 gallon drum they would need which would be hard for them to fit into some of their spaces. Also the other concern is with the automated controllers, and I' m not sure if this is an issue, but the maintenance technicians or servicing company that would be coming out, is there a potential for them to be more lax in checking on the automated controller versus having technician that's routinely out on a regular basis.

Al

That's a good question. Hopefully not. It should make their life easier in that they can plan ahead and don't have to worry about the weekends, but they should still be maintaining it and that should be something that's in their contract saying you still have to maintain.

Susan
They typically aren't.

Al
And I get that, I can see where that could be a possibility.

Susan
OK. I will contact you to get additional information on the how much to maintain.

Al
OK

Susan
OK, Thank you.

JRC
Any other comments?

???????????
Brought up an interesting point. Who's to say that I put in an automated chlorine system with a one gallon jug of acid and a one gallon jug of chlorine next to it and say I'm done.

Al
Your pool chemicals, when they come out and test it, if you are not paying any attention to it, they'll be out of wack.

??????????????
Theoretically I could put in an automated system and fill a one gallon jug of chlorine underneath it and a one gallon jug of acid and just hope I keep it full until you guys come out to do an inspection. Theoretically?

Al
I've seen one gallon jugs of acid on an automatic feeder, so yes, theoretically you could do that.

????????????
That answers my question.

Al
As long as that's keeping up with needs to be kept up with, that parts fine.

JRC

Alright, I'm going to open it up to any other comments to the regulations. Alright, session's closed. We have one more public comment period for any other concerns that you may have about anything, it doesn't have to specific to new regulations or codes.

Paul
General public comment.

JRC
General Public comment is open now. If you have one, please step up to the podium, state your name and your affiliation or your address. And you will have five minutes.
There are none?
We are adjourned.
If you have any official comments, please send them to my email or public notice by the 28th.

AQUATIC FACILITY REGULATIONS
PUBLIC WORKSHOP MINUTES

Red Rock Conference Room
280 S Decatur, Las Vegas, Nevada
November 18, 2016, 1:00 p.m.

PUBLIC PRESENT:

Scott Baker, MGM Grand
Tom Barrett, MGM Resorts
George Bryce, Cancun Resort
Dave Campbell, Tahiti Village Hotel
Mario Chicas, Cancun Resort
Cara Evangelista, Impact
Michelle Flater, Wynn
Brian Graham, Stratosphere Hotel
Jason Gray, MGM Resorts
Gary Hannig, Aquatic Services
Jason Jerge, Stratosphere Hotel
Lawrence Ḳaaihue, Diamond Resorts
Darren Kozawa, Desert Paradise Resort
Elizath Loroya, ACEP LLC
T Mahlhanes, MGM Resorts International
Matteo Mastrovalerio, Diamond Resorts International
Guillermo Morales, Diamond Resorts
Chris Morgan, Vivo Aquatics
Chris Norman, Cowabunga Bay
Walter Peters, Cancun Resort
Marial Rabino, Diamond Resorts
Jeremy Reffner, Stratospher Hotel
Nathanil Savala, Diamond Resort International
Jeff Seavey, Caesars Entertainment
Scott Simons, Poolscapes LLC
Brisa Stephani, Impact
Ryan Talley, MGM Grand
Virginia Valentine, Nevada Resort Association
William Van Villiard, Polo Towers Resort

SNHD STAFF PRESENT:

Carol Cottam
Jeremy Harper
Jacquelyn Raiche-Curl
Heather Hanoff
Paul Klouse
Jackie Reszetar

INTRODCUTORY REMARKS
Jacque Raiche-Curl opened the workshop at 1:03 p.m. by welcoming all those in attendance and announcing the purpose of the workshop on the Proposed Southern Nevada Health District Aquatic Facility Regulations, being held November 18, 2016.

Ms. Raiche-Curl announced that these meeting are being held pursuant to Nevada Revised Statutes Chapters 233B and 241 and to take testimony and consider proposed changes to the Southern Nevada Health District Aquatic Facilities revised regulations. These proposed regulations will update the existing regulations and mirror the model Aquatic Health Code.

Ms. Raiche-Curl went on to explain that there would be a comprehensive directive on how the aquatic health facilities are regulated in the event that the regulations are not presented at the January 26, 2017, Board of Health meeting then they will be presented at the February 23, 2017, meeting at 8:30 a.m. in the Red Rock Conference room which is the room that this workshop is taking place.

Ms. Raiche-Curl announced that these workshops have been duly noted per NRS 233B and 241; public comments will be accepted until December 9th. If there are any additional comments after that date feel free to provide comments in email form to Ms. Raiche-Curl's email address which is posted on the SNHD website under the public notice for these regulations.

Ms. Raiche-Curl asked that when anyone steps up for public comment that the commenter steps up to the mike one person at a time, speak clearly, state your name, your address or who you're affiliated with, and also spell your last name for the record, then proceed with your comments.

Ms. Raiche-Curl turned the time over to Jackie Reszetar, Director of Environmental Health.

Ms. Reszetar thanked all for attending today's workshop and commended industry and SNHD for this initiate. Ms. Reszetar went on to explain that the intent of today's workshop is to review the red line comments that were incorporated into the draft. If anyone attending feels that their comments have not been addressed let staff know. SNHD staff is in the process of compiling a list of comments and why they weren't incorporated into the draft. Staff is also preparing a side by side document that will help determine what was changed in the original document. Although that draft is not ready as of yet the intent for today is to review the red-line comments and show the changes. Also being discussed will be the pool waiver concept and take questions and comments of what that will look like.

GENERAL PUBLIC COMMENT PERIOD
No public comments

PUBLIC COMMENTS ON THE DRAFT REGULATIONS
Ms. Raiche-Curl announced that now we would welcome public comments related to the regulations and asked if everyone has had a changed to review the red line comments that have been posted on the SNHD website. (There were two members of the public that had not reviewed the changes.)

Ms. Raiche-Curl asked if those that had not re-viewed the red line documents had any proposed changes on any specific regulation? No one had changes at this time.

Ms. Raiche-Curl announced that staff would go through the regulations like last time, a section at a time stopping to review changes to the document and to allow for public comment.

Ms. Rache-Curl went over the regulations a section at a time going over any changes. She invited to public to come up to the microphone at any time to make public comments.

SECTION 1 - GLOSSARY

Definitions
No public comments

- Diaper changing stations was removed throughout the whole document.
- A definition was added for non substantional alteration.
- The definition for pool parties and pool spas were removed.
- Examples of qualified operator responsibilities were added.
- A definition for unblockable drain covers was added.

SECTION 2 – FACILITY DESIGN AND CONSTRUCTION

2-1 Plan Submittal
No public comments

- Criteria added of a minimum of one set of hard copy plans (2-101.7 (A))
- The word "area" was added (2-102.2 B (9))
- Diaper changing stations was removed (2-102.2 (G))
- Removed the pool party water density factor and the deck related density factors (2-102.3)
- Language clean up, instead of law-other regulatory entities fit better into that statement (2-103.1 (B))
- Section A was completely lined out (2-103.3)
- Clarification on certificate being prepared by a licensed professional that it's defined by state law (2-104.2)
- Loose pebbles was added so when talking about pool interiors and spa interiors there would be no confusion on possible limitation on pebble textile pool interior (2-201.7)
- Indoor aquatic facility interior building finishes was added so there would be no confusion between the interior finishes of a building and not talking about the body of water (2-202)

2-3 Aquatic Venue Structure
No public comments

- Dimensions for stair tread changed from 16 to 18 inches (2-304.4)
- If stairs are wider than five feet multiple hand rails are needed (2-305.4)
- Added in depth factor in regards to recessed steps (2-307.3)

- Horizontal clear space between hand rails changed to 18 inches (2-308.2 (B))
- Word "horizontal" was added to depth markers (2-3018.1 (D))

2-4 Indoor/Outdoor Environment
No public comments

- All cross references have been corrected throughout the document
- Removed "requiring lighting." All pool areas need to be provided with egress lighting (2-401.8). This is new construction.
- New section was added-Indoor Aquatic Facility Acoustics (2-403)
- Section (B) on spectator areas was removed (2-4010)

2-5 Recirculation System Design, Equipment and Water Treatment

Scott Simons, Poolscapes: 2-502.2 with the inlets; we did pick up on the minimum depth of being 18 inches but we did not put anything in there for minimum number of returns. Typically wade pools and spas you say every 15 feet but in wade pool and spas they like to see a minimum of 3 returns, that's always been the general rule in the valley. You don't really have anything in there for a minimum number of returns. That was it for that one

Ms. Raiche-Curl: Thank you

Jeff Seavey, Caesars Entertainment: I was just hoping you could expand a little bit and clarify the acoustical treatment section that you added in.

Ms. Raiche-Curl: Expand as far as giving examples?

Mr. Seavey: As what your expectation for that line would be; decibel requirement, certain levels.

Ms. Raiche-Curl: It's the same as what the state code is now there isn't-they don't have specificity with decibel requirements or anything else but just materials in there. If you're talking Caesars Entertainment and you're talking about one of your day spa type of facilities that would be indoor and they often times have artificial plants and things that absorb the sound that would count. We're just looking at things that-there can be paint treatments and so forth something that is relatively water resistant because it is a high humidity area but that's going to act as a sound absorber.

Jeremy Harper, SNHD: We had municipal pools built for example, just a big indoor municipal pool and you hear is buzzing of equipment and chatter, you can't really, lifeguards communicating with each other, it's hard to understand what's going on so they've hung things from the rafters to break up the sound or put plants in corners; that would be enough to help break some of that up. It's nothing like a major acoustical treatment like in an auditorium or anything like that. It's just something to break up sound to make communication between lifeguards better.

Mr.Simons: Just to clarify that that's new construction, that's not existing spas if you do a major remodel you may need to bring that up to date. This is specifically for new construction.

Mr. Harper: Correct

Ms. Raiche-Curl: It is specifically for new construction but it is not a new requirement. It came out of the existing regulations so most places do have something like that in them.

Mr. Simons: Correct, but we don't have to worry about existing places unless we do a major remodel then we have to concern ourselves with it. It's probably already resolved, because it's always been in the code.

Mr. Harper: Correct.

Mr. Simons: I kind of get the impression that Caesars is probably worried about you guys coming in and going "you didn't do anything about this reverberation."

Mr. Harper: Right, if there's a facility that has an outdoor pool and they decide to put a dome over it for the winter and use that as an indoor pool then we will address it at that point because it becomes an indoor pool that never had any acoustical treatment. If it's an outdoor pool they probably have something like plants or something that's going to break up some sound. It might not be as much as an issue and a lot of properties already have some means of communication other than just yelling at one another. We'll address it operationally if we need to in those situations but it is for new construction or major remodel.

Paul Klouse, SNHD: It is a qualitative as opposed to a quantitative standard in the state regulations right now. Which is exactly the same language as we put in this.

- Inlets shall not extend from the wall or floor was added (2-502.2 (G))
- Floor inlets changed when used in combination with inlets shall be spaced no greater than 10 feet. This previously stated 25 feet (2-502.2 (I)(3))
- Added that inlets shall be placed not less than 18 inches below the water level of the pool (2-502.2 (J)(6))
- Minimum requirement of two skimmers was added for each aquatic venue (2-502.4 (B))
- Took out "The base of" (2-502.4 (M)
- Added "Unless an unblockable drain cover design is provided." (2-502.5 (B))
- Removed "equally" and added "no more than 15 feet" (2-502.5 (C))
- Condensed equation (2-502.5 (F)(1)(a))
- Added a value for the slope on piping (2-502.6 (C)(1))
- Removed the requirement for the "Not Positive Suction Head" (2-502.7 (C)(6))
- Removed "a back means of flow control as well as" (2-502.8 (C))
- Removed party pools (2-502.9 table))
- Changed 606 to 506 (2-502.9 (H)(2))
- Removed "individual" (2-503.2))
- Removed "a" (2-503.2 (F))

- Added five year compliance date to automated controllers (2.501.2 (V))
- Removed party pool (2-503.3 (3))
- Removed reference to Optional Secondary Disinfection Systems (2-501.3 (B))
- Cleaned up cross reference (2-504.3 (B)), (2-504.3 (C)), (2-504.4 (B)), (2-504.4 (C))

2-6 Decks and Equipment
No public comments

- Wording cleaned up (2-601.1)
- Added "to" (2.601.5 (E)(1)
- Seven feet changed to eight feet for bridge reference (2-601.7 (G))
- Added "and equipment" for diving boards and platforms (2-602.1)
- Added "public access" (2-604.3 (G))
- Corrected cross reference (2-604.3 (K))
- Removed the GFCI reference to using an extension cord with a Robotic Cleaner (2.605.6)

2-7 Recirculation Equipment Room
No public comments

- Added "indoor" and took out "area or" (2-701.1)
- Removed equipment room floor requirement, was redundant (2-701.6 (B))
- Chemical Storage Spaced changed barrier to enclosure (2-702.1)

2-8 Hygiene Facilities
No public comments

- Inconsistent wording was cleaned up

2-9 Water Supply and Wastewater Disposal
No changes or public comments

2-10 Special Use Aquatic Venues

- Added several parts from the spa where spa depths are greater than 24 inches (2-1002.3)
- Added hand rail egress requirement (2-1002.3 (A)(1)
- Removed spa location in relation to recessed deck (2-1002.4 (A))

Scott Simons, Poolscapes: I did have a question regarding 2-1002.4. I'm still not clear if I can build a spa directly next to a pool or must there be space between them? I had e-mailed you a suggestion I don't know if you got it or saw it but all I'm really trying to do is I get a lot of architects that want to bring in a design and they have a common 12 inch dam wall separating the pool and the spa and I'm the one saying "no we can't do this it has to be separated by four feet of deck with a barrier between there to keep the water from cross contaminating." If you guys aren't going to worry about it then I'm not going to, but I just don't know what the answer is.

Ms. Raiche-Curl: You do have to have a means to keep the water from cross contaminating. As far as the actual distance...

Jeremy Harper, SNHD: I think we do need to do more in clarifying this section. It does say if a barrier is not provided then the maximum distance does need to be four feet. I did see your comments.

Mr. Simons: That's on an elevated spa. It's just all mixed up in there and like I said I'm still not clear if I can and if I can't give me a number. In the past it's been four feet; I don't think it was ever written anywhere, but as long as there was four feet between the two bodies of water with a drain between them so that we didn't get cross contamination if we can verbiage something like that. At least I have something to show the architects when they're giving me these...spas that are built in as part of the pool and they think its real cool and it is until cross contamination happens so we'll work on that.

Mr. Harper: We will rework that wording.

Ms. Raiche-Curl: Thank you.

2-10 Special Use Aquatic Venues (continued)
No public comments

- Lengthy section regarding suction outlets and jet systems (2-1012.7 & 2-1002.8)
- Added a cross reference (2-1003.5 (A)
- Added features and devices installed in a child amusement lagoon (2-1008.1(B) (C)
- Added underwater lights prohibition on Wading Pools and Child Amusement Lagoons (2-1008.2)
- Removed Party Pools and Spas section (2-1009)

SECTION 3 – FACILITY OPERATION AND MAINTENANCE

3-1 Operating Permits
No changes or public comments

3-2 Aquatic Facility Operation and Maintenance
No public comments

- Reference corrections were all that was done to this section.

3-3 Aquatic Venue Structures
No changes or public comments

3-4 Indoor/Outdoor Environment
No public comments

- Added in beverages in a durable container (3-407.1 (B)

3-5 Recirculation and Water Treatment
No public comments

- Minor reference changes
- Added in a new section Water Supply and Disposal (3-507))
- Removed the word "after" and added "following" (3-503.1 (C) (3))
- Added additional requirements in reference to compressed chlorine gas (3-503.1 (D) (1))
- Chlorine Dioxide "added through the recirculation system" was added (3-503.3 (C)(1))
- Feeding equipment wording was added (3-503.5 (A))
- Automated controllers required two years following implementation date (3-503.7 (B))
- Removed parts of water sample collection (3-504.1)
- Added "main suction outlet pattern" to Water Clarity (3-506.1)
- Added water supply and disposal; this applies to new construction (3-507)

3-6 Decks and Equipments
No public comments

- Life guard chair design wording was cleaned up (3-603.5 (B))
- Added length for reaching pole (3-603.7 (H))

3-7 Chemical Storage and Use
No changes or public comments

3-9 Special Use Aquatic Venus and Features

- Removed party pool and spa section

Ms. Raiche-Curl went over the reasoning for removing the party pool and spa sections. The main reason being that there is not enough data with the big variety of party pools that are in the valley; instead of the Health District coming up with a way to keep the party pools sanitary with the increased bathers it was decided to have each venue come up with their own plan specific to that venue an present that plan to the health district as to how you're going to monitor your water clarity and chemical stability as a waiver scenario. Although the party pools are being taken out of the regulations doesn't mean they aren't being regulated.

Virginia Valentine, Nevada Resort Association: I would like to say first thank you very much we appreciate that you've listened to our concerns and that you're addressing them through the waiver process. We don't understand a lot about how the waivers would work as yet. We'd like to continue to work with you on that but I would say that we think you've come up with a pretty good start on a solution and that we want to work with you on assuring that the aquatic facilities are safe and that they're clean and I just appreciate that you recognize the uniqueness of not

only how they're operated but how important is to the business model. Thank you for now I'm sure we'll...we look forward to working with you on that. Probably have some other technical comments before your December 9th deadline but I think you have addressed one of our major concerns and we do appreciate that. Thank You.

Brisa Soto, Tao: I also want to say thank you for taking our concerns into consideration, we appreciate that and working with us. My only question would be will there be some type of a grace period or give us a minute to kind of put these waivers together and submit before we come out and start enforcing.

Ms. Raiche-Curl: Absolutely

Ms. Soto: Do you know what kind of time frame?

Mr. Harper: We have idea what the adoption for these regulations is going to look like yet so it's something we discussed. If we go to the board in January and adoption is immediate we're not going to make everybody do this right away before the upcoming pool season. We have discussed extending the time frame until you know; let everything go for this pool season then wait until the next pool season. We're going to give everyone time; because we have to come up with how we're going to handle it as well. So there's going to be some talks on both ends and we will work with everyone. Virginia we don't...we're still learning, this is the first time in Aquatic Health that we've had a waiver process. The food program does a waiver process so we need to work with them and figure out the best methods to go about this. It's going to be a learning effort on both sides.

Ms. Soto: Perfect. Thank you I appreciate it.

Ms. Reszetar: I second that. We will work together as a group to come up with a plan that will work. As long as we're protecting public health this should be a big win for all of us.

Mr. Klouse: When we get to the waiver section let's take some time and actually read through that so everybody knows what's in that section.

Ms. Valentine: If there's an opportunity to work with you all on the development of that waiver process so that we both have a mutual understanding of what's expected and what we need to do; initially we'd want the waiver to be something that permanent less the mode of operation changes because we want this to be predictable for the business. If you can do it six months this season you invest in it. It needs to be predictable in this environment. I also want to say thank you because I recognize that this is going to be a lot of work for you and your staff and up front we appreciate that you're willing to do that.

Ms.Reszetar: We will continue to work with all of you to come up with a plan that works and that we understand and this will take time of course. Time is of essence for us and it's to benefit the community. Thanks for your patients.

SECTION 4 – POLICIES AND MANAGEMENT

4-1 Qualified Operator Requirement
No changes or public comments

4-2 Lifeguard Training
No public comments

- Added "attendant" which is also in NAC (4-2011 4-201.3)

4-3 Facility Staffing

Gary Hannig Aquatic Services: More of a clarification on 4-302.1 under Facilities Requiring Lifeguards. Number 9, any pool that charges an admission fee or where a rental fee includes the use of the pool; or. Is that just a fee at the gate to enter the pool or would it include like a hotel room fee if there pool is still under 2,000 square feet and an apartment rental fee and the pool is part of their rental. Can I get a clarification on number 9.

Ms. Raiche-Curl: It wouldn't include that you're paying rent for an apartment and then your pool is an amenity to that. Same thing with your hotel room but if you do cabana rentals to people who are not hotel guests and things like that then that would include.

Mr. Hannig: That's what the rental fee includes the use of the pool. That's what that means.

Ms. Raiche-Curl: Or a charge at the gate like places that open up on the weekends or whatever, they open up to residence during certain times and they charge a fee.

Mr. Hannig: Okay, So for an HOA if there's not a direct fee to use the pool but it's built into their home owners association then this doesn't apply correct?

Ms. Raiche-Curl: Not for that portion of it; it would apply to square footage if it fell into that but no.

Mr. Hannig: Within the enclosure, if there's one pool that let's say is 6,000 square feet but there's two others that's only a 1,000 square feet would all bodies of water need a lifeguard or just the one that's over 2,000 square feet?

Mr. Harper: Yea, under 5, any pool enclosure with a cumulative unsupervised pool service area of 4,000 so every body of water within that enclosure would need...

Mr. Hannig: Hang on, how big the total enclosure is?

Mr. Harper: right

Mr. Klouse: If they were separate enclosure it wouldn't

Mr. Hannig: What if there's a gate around the kiddie pool if you will. And it's only 500 square feet.

Mr. Harper: Separate enclosure, if it's a complaint barrier.

Mr. Hannig: Okay, perfect.

Mr. Harper: That's unsupervised pool surface area so if the 6,000 square foot that would automatically be supervised. We'll have to figure this one out cause we deliberated over that one for quite awhile. We might have to re-word this one to make it more clear.

Mr. Hannig: I just had one more. On and this was just more for what was the rationale for the change that was redlined was 4-303.3. See staffing rotations it looks like it was red lined to you guys crossed out the 10 minutes and added station rotation, I'm sorry I wasn't here for the last workshop.

Ms. Raiche-Curl: On the last workshop one of the things that was brought up was one of the life guard managers for one of the resort properties brought up that their particular plan is that they have their lifeguards sit in their stand for 30 minutes and every 30 minutes they get up and they rotate. There was concern that when we had the wording that they needed a period of at least 10 minutes of non-patron surveillance activities such as taking a break that we were requiring additional 10 breaks be instituted throughout the day. The goal of this is just not to have somebody sitting in a stand for any more than 60 minutes at a time with constant bather surveillance because their attention span is gone after that. So we crossed out the time frame because if you have 30 minutes rotations you're meeting the spirit of this. Even if you get up and move from one stand to another you have changed your outlook and kind of jostled your mind a little bit so that you could go back and focus.

Mr. Hannig: So the way it's currently written here if this is adopted; it's really up to the employer. They could be on the stand for four hours with literally a 30 second rotation from one stand to the next. So you're going to one stand for 30 minutes a 30 second rotation, to another stand for 30 minutes, and so forth. You could technically be on the pool as long as you're following labor laws and allow their 15 minute break every four hours and a 30 every eight, they can technically be on the pool for four straight hours with a 30 second rotation between stands; the way it's currently written.

Ms. Raiche-Curl: Do you have a suggestion for wording?

Mr. Hannig: I would just assume the (inaudible) did that for a reason that that way the guard could be off the stand to remain vigilant. You're not vigilant just moving 30 seconds to another stand. I've been in the industry 20 years and we don't practice that, I'm sure hotels do but...again I just want to know the rationale that was all, but you explained it. But the way it's written they can just be on stand for four hours.

Ms. Raiche-Curl: We can work on that wording some more. Thank you.

I'm going to go back up real quick just to be transparent. We did add in that at least one lifeguard will be required for every 2,000 square feet or every major fraction thereof unless an independent lifeguard auditing entity provided documentation supporting a reduced number of lifeguards. There were a lot of questions that came in last time. This is what's currently required today on the first portion of that statement. People asked last time if they automatically had to redo their lifeguard plan when these regulations came into play. There's no reason why if you have an existing lifeguard plan that's working for you, you don't need to make any changes. I did receive some other comments; I have not had the opportunity to incorporate any additional wording in here yet, but about concern regarding the independent lifeguard auditing entity. We need to do a little bit more research I think to see if anybody certifies them; typically when we defer to another group it's somebody who's been certified through a national agency like ANSI certification and so forth.

Mr. Harper: Just gonna add-this is going to get cleaned up a little bit to clarify a little bit. The point is the default is to stick with the current regulation if you do want to change it then there's going to be a process for changing it and there's going to be some steps involved.

4-4 Facility Management

Chris Norman, Cowabunga Bay: Section 4-401.5 on staff certifications. Just a minor suggestion on there; it says that patrons can request to view certifications. My only concern there when you're looking at a lifeguard's certification, most of them have personal information dealing with 16/17 year old lifeguards, has addresses, e-mail addresses, sometimes phone numbers on those as well. I just look at that from a harassment point of view, guests coming up they can view any lifeguard certification on file and potentially harass the lifeguards.

Mr. Klouse: Excellent point, thank you.

Ms. Raiche-Curl: We added in one additional sign requirement that which is already in Nevada Administrative Code that if you don't have compliant lighting you need to post that you're hours of operation are from dawn to dusk unless they're more restrictive.

4-5 Fecal/Vomit/Blood Contamination Response
No public comments

- Wording was cleaned up regarding physical removal (4-502.2 (A))

4-6 Additional Requirements for Special Use Aquatic Venues
Section removed

SECTION 5 COMPLIANCE AND ENFORCEMENT

5-1 Provision for Conditions not Addressed in these Regulations
No changes or public comments

5-2 Prerequisites for Operation
No changes or public comments

5-3 Waivers
Ms. Raiche-Curl explained that the point of the waiver is if you as the operator want to operate outside of the regulations as outlined then you have the opportunity to do that by providing the Health District an explanation of how any risks that comes up would be eliminated by not following the regulations.

Mr. Klouse added that the waiver system is currently being used in the food program. The food program's form was shown to the audience so they could get an idea of what was being talked about. Mr. Klouse went on to explain that if a process is not meeting the regulations but there is a fix for it an application if filled out stating what regulation is being affected, what risks might be caused for not following the regulation and what mitigation might be put in place. This is then submitted to the Health District with back up documentation, if available, for the waiver process to start.

Ms. Raiche-Curl showed an example of the waiver application that the food program is using and explained how it can be used for the pool program. She then went over different examples how a waiver might be used.

Ms. Raiche-Curl asked if anyone has ever submitted a variance and explained that the two are similar with the list of conditions but a waiver comes to staff and is approved or not within a couple of weeks where a variance can take up to three months.

5-4 Responsibilities
No changes or public comments

5-5 Enforcement and Inspections
No changes or public comments

5-6 Imminent Health Hazards
No changes or public comments

5-7 Issuing Report and Obtaining Acknowledgement of Receipt
No changes or public comments

5-8 Summary Suspension, Reinstatement and Revocation
No public comments

- Nevada Administrative Code references removed (NAC444)

5-9 Suspension or Revocation of Qualified Operator or Pool Company Registration
No public comments

- Nevada Administrative Code references removed (NAC444)

5-10 Notice and Service or Notice
No changes or public comments

5-11 Abandonment Process
No changes or public comments

5-12 Public Information
No changes or public comments

5-13 Severability Clause
No changes or public comments

Ms. Raiche-Curl closed to the public comment section to the regulations themselves.

GENERAL PUBLIC COMMENTS PERIOD

Cara Evangalista, Tao Group: Have you thought about doing any little work groups for the day clubs so that we can get together and do some of these specific things?

Ms. Raiche-Curl: Are you talking about like the waiver process?

Ms. Evangalista: Yes, I know it was kind of said already but where we're all maybe specific to the day club and get together with you guys to work together with it. Some of it we might need help with.

Ms. Raiche-Curl: I think that we would handle that very much like we did on the food side when we instituted that waiver process where the first few...I know on the food side we have essential templates where we went though and we collected what were the subject matters that most people wanted the waiver for and then we built out templates where almost like a plug and play type of form. You have options and then you personalize it to your business. We're going to have to conceptualize that a little bit but like Jeremy said It's not something where hypothetically and incredibly optimistically let's pretend that these got adopted January of 2016. It's not something where come March boom you don't have your waiver you're done. That's not what we're looking at. I think that during this oncoming year as Jeremy already said we kind of have to come up with our strategy on it too. I think that some-I don't think a workshop like this forum with a public comment workshop would be appropriate but a work group, I think would be viable. Maybe divide it up because like we already talked there's so many different scenarios and a day club I think almost a club period a club style is going to have a slightly different demand whether it's a day club or a night club. Then your resort that turns into that type of operation two or three days out of the week and so maybe break them into different groups and kind of look at what your challenges are.

Ms. Evangalista: Yes that would be helpful and then we need and cause I'm going to go back and talk to them but we might have to have that one season to start taking some data. Putting stuff together and then come in with you guys and coming up with ideas.

Mr. Klouse: Once the regulation gets passed and we put our administrative process together to make this work then we can all start talking about how we're going to make it work.

Ms. Raiche-Curl: Be aware also that just like when we did that major change to our food regulations in 2010 we had several educational opportunities for industry at that point where we went through the regulations and all the major changes and we had educational sessions for industry. We're going to do the same thing for pools too; so I think that that may be another opportunity to delve into this a little bit deeper; kinda of have a sub-set with the waiver process for that.

Jason Gray, MGM Resorts: Before these regulations are adopted there will be a small work group process to work through the waiver process for party pools. You're going to adopt the regulations and then have a workgroup to go through the administrative standards for a waiver process?

Ms. Raiche-Curl: We will not have the work group before the regulations are adopted. The waiver process is a component of the regulations but the process itself is separate. The regulations are one thing the actual waivers themselves there going to be somewhat specific to different challenges and so forth, so in order to come up with some general waiver ideas and kind of templates for people to use with suggestions that they can pick and choose what works for them. That's where the workgroups would come in.

Mr. Gray: If we have questions and comments specific to the waiver process that you have now written into your code we then need to do that during this proceeding and not expect to vet that through a work group process.

Ms. Raiche-Curl: Yes, either through this proceeding or provide those through e-mail to me.

Mr. Hannig: One final comment-under the current NAC and I've had this brief discussion with Jeremy before under bather requirements and prohibitions it says "if this persons is not dressed for bathing must not be allowed in the pool" that's so ambiguous. Will that be clearly defined in the new regulations or will it still be that vague; because that's a common problem at community pools. I don't know about hotels but people wear their basketball shorts and they're dressed for bath in their opinion so it really leaves it up to interpretation or is it up...It'd be nice to point to something-a code that allows these certain garments, if you will, in the pool or is strictly up to the facility to allow what they want to allow.

Ms. Raiche-Curl: It's up to the facility to enforce it, it is a vague requirement and it happens to be a hot top nationwide as far as the bathing attire and we have a lot of cultural variability surrounding this issue as well. I know I've read a number of articles in other parts of the country where certain cultures encourage people to be covered up basically to their fingertips and some of them are made out of what you would consider bathing material and it's more of a material issue than how much of the skin is covered one way or the other. Because when you have garments that are not designed to go into a pool; one they bleach out; two you end up with a detergent dump in your pool, which messes with your water chemistry; can leach out the dyes that can also mess with your water chemistry; if it's not in good repair you end up with threads

that go in and get tangled up in your pump and he's nodding so he knows exactly what I'm talking about. Those are our concerns when we start talking about bathing attire as well as. Those are our main concerns, we're looking at the impact that it's going to have on your pool and if there's any entrapment hazards too; because depending on what you're wearing if you're wearing something really lacy but I've seen some swimsuit designs that have those flowy things off of them that could potentially be an entrapment hazard. It's more an impact that it's going to cause on you from a maintenance standard. It does become really hard for us to put a more specific definition and I only say that because of what's going on nationally. There are court cases lined up on people's right to wear these different things and not be...right it's the facilities job. The facility can make up their own rules; it's the facilities job to enforce bathing attire as is appropriate because it's also the facility that has to deal with the consequences of people not wearing appropriate bathing attire.

Mr. Harper: It is in here the wording is just changed a little bit.

Mr. Klouse: Is that enough for you to enforce that? The way that language is written, what do you think?

Mr. Hannig: I'm just telling you I'm on the front line I deal with it every single day so what you get is this is my swim wear, this is what I wear to swim, it could be cotton shorts it could be basketball shorts, it could be, whatever they tell you and it literally gets confrontational because that's there swimwear. We've been threat ended with law suits before and it just gets...and then there's religion aspects as what they want to wear into the pool and we really don't have anything to point to if you will. Then you're allowing some people to –where do you draw the line I guess is the question.

Mr. Klouse: This particular regulation was...say that it had to be intended and designed to be swimwear and is obviously not street clothing.

ADJOURNMENT

Ms. Raiche-Curl asked if anyone had any additional comments. Seeing that there weren't any the meeting was closed at 2:23 p.m.

Carol Cottam-Akin
Carol Cottam, Administrative Assistant

June 7, 2017
Date

Public comments are verbatim and italicized.

AQUATIC FACILITY REGULATIONS
PUBLIC WORKSHOP MINUTES

Red Rock Conference Room
280 S. Decatur Blvd., Las Vegas, Nevada
November 28, 2016, 10:00 a.m.

PUBLIC PRESENT:

Ryan Talley, MGM Resorts
Chris Norman, Innovative Attractions
Rich Woodhouse, Cowabunga Bay Water Park
Zachary Corbett, Bellagio Resort
Cara Evangelista, Tao/Sapphire
Shane Huish, Cowabunga Bay Water Park
Susan Breckon, NV Apartment Association
J.P. Clemente, Phigenics
Tom Barrett, MGM Resorts
Yasmine Haddad, Phigenics
David Coleman, Wynn Las Vegas
Renee Rivera-Shaffen, Tao Group
Brooke Winter, Phigenics
Ryan Arnold, Arc Consulting
Scott Baker, MGM Resorts
Jeff Seavey, Caesars Entertainment
Allison Modersa, Wynn Las Vegas
Alex Stokes, Wynn Las Vegas

SNHD STAFF PRESENT:

Jackie Reszetar
Jeremy Harper
Jacquelyn Raiche-Curl
Augusta Washington
Nancy Chu
Judy Tawatao
Al Karns
Heather Hanoff
Paul Klouse
Candice Konold
Kevin Pontius
Sarah Martinez
Alicia Mitchell

INTRODUCTORY REMARKS:

Jacque Raiche-Curl opened the workshop at 10:06 a.m. by welcoming all those in attendance and announcing the purpose of the workshop on the Proposed Southern Nevada Health District Aquatic Facility Regulations, being held November 28, 2016.

Ms. Raiche-Curl announced that these meeting are being held pursuant to Nevada Revised Statutes Chapters 233B and 241 and to take testimony and consider proposed changes to the Southern Nevada Health District Aquatic Facilities draft regulations. These proposed regulations will update the existing regulations and mirror the Model Aquatic Health Code (MAC). They will be a comprehensive directive on how the aquatic health facilities are regulated.

In the event that the regulations are not presented at the January 26, 2017, Board of Health meeting, then they will be presented at the February 23, 2017, meeting at 8:30 a.m. in the Red Rock Conference room which is the same room as this workshop.

Ms. Raiche-Curl announced that these workshops have been duly noticed per NRS 233B and 241; public comments will be accepted until December 9, 2016. If there are any additional comments, feel free to provide them in email form to Ms. Raiche-Curl's email address which is posted on the SNHD website under the public notice for these regulations.

Ms. Raiche-Curl asked that people making public comment step up to the mike one person at a time, speak clearly, state your name and who you're affiliated with, and also spell your last name for the record before proceeding with your comments. Any comments stated in the audience area and not through the microphone may not be included in the transcript because we won't have a clear audio recording of those comments.

Ms. Raiche-Curl introduced Jackie Reszetar, Director of Environmental Health.

Ms. Reszetar thanked everyone for attending today's workshop and shaping this extraordinary effort to further protect our community and tourist populations. This has been a long process but we are becoming national leaders so everyone should give themselves the credit deserved for shaping our community. Today's intent is to review the red line comments that were incorporated into the draft. The comments in the draft clearly prevent imminent health threats and as a courtesy, we are preparing a side by side view of the previous regulation compared to the new draft. In addition, we are preparing written commentary regarding stakeholders input which did not become part of the draft.

GENERAL PUBLIC COMMENT PERIOD (1):

No public comments.

PUBLIC COMMENTS ON THE DRAFT REGULATIONS:

Ms. Raiche-Curl went over the red line version of the draft, one section at a time. Changes are mentioned below and most were in response to public comments received during previous

workshops. She invited the public to make public comments at the microphone during the review of each section.

SECTION 1 – Glossary

1-2 – Definitions

No public comments.

- Diaper Changing Station was removed. It was pointed out that they are more of a hindrance and means of vandalism rather than help. All references to diaper changing stations were removed.
- Non-Substantial Alteration was added by request. Substantial Alteration is already defined.
- The definition and references to Party Pools or Spas was removed.
- Examples of Qualified Operator duties were added.
- A definition was added for Unblockable Drain Cover due a comment that was added later in the text.

SECTION 2 – Facility Design and Construction

2-1 – Plan Submittal

No public comments.

- Added 'a minimum of' by hard copies submitted. We are still only requiring one but if a submitter wants to submit four or five copies that are all stamped, we will accommodate that. (2-101.7 A)
- Added 'area' for area lighting for clarification. (2-102.2 B 9)
- Removed diaper changing stations. (2-102.2 G)
- Under occupancy, we took out the pool party density factor as well as deck density and stadium seating density. Deck density has been regulated by the Fire and Building Departments in the past so we are going to allow that to continue and use their figures. (2-102.3 E 2 b)
- Cleaned up some wording with law. (2-103.1 B & 2-104.2)
- Under Replacements, the red line draft posted online took the entire section A out. After feedback when reviewing our changes with some Board of Health members, they asked that this be put back in with some modifications instead of completely getting rid of it. Now when replacing like equipment, the aquatic facility owner shall submit technical verification to the Health Authority that the replacement is equal to the originally approved equipment. The verification needs to be submitted within five business days of the change. (2-103.3 A)

2-2 – Materials

No public comments.

- Wording for law cleaned up. (2.201.1 & 2-202.2 A)
- Added in the word 'loose' before pebbles per a previous request so there is no confusion. We are not trying to eliminate the use of pebble tec type surfacing. (2-201.8)
- Added in the clarification 'building finishes.' (2-202.1)

2-3 – Aquatic Venue Structure

No public comments.

- Changed stairs wider than five feet shall have at least one additional handrail for every twelve feet of stair width to every ten feet of stair width. (2-305.4)
- For the dimensions of a recessed step, added in a depth of five inches. That matches with the Nevada Administrative Code (NAC) Chapter 444. They just didn't have a depth requirement before in the MAC. (2-307.3)
- Under Ladder Handrails, changed the horizontal clear space between handrails to no less than eighteen inches instead of seventeen inches. (2-308.2 B)
- Under depth markers and markings, added the word horizontal at the public's request for clarity's sake. (2-3018.1 D)

2-4 – Indoor/Outdoor Environment

No public comments.

- Corrected references. (2-401.4)
- Eliminated 'requiring lighting' since it was redundant. A previous section states that all pool areas do require lighting. (2-401.8)
- Wording for law cleaned up. (2-401.8)
- Added a section for Indoor Aquatic Facility Acoustics. It was previously omitted on the draft. This came right out of the NAC. There were questions about this during the workshop on November 18th. Just for clarities sake, this is about putting in the decorative plants and anything that's going to absorb sound within that room so that you don't end up with such a level of reverberation off those walls that you can't hear. (2-403.1)
- Changed 'relevant law' to 'local codes and amendments.' (2-404)
- Under Spectator Areas, removed section B. It was determined that this section is really under Building Department requirements rather than Health Department requirements. (2-4010.1)

2-5 – Recirculation System Design, Equipment and Water Treatment

No public comments.

- Added in that inlets shall not extend from the wall or floor. You can't have something extending out of the wall or floor that bathers can get hung up on. (2-502.2 G)
- The spacing requirement no greater than twenty-five feet was changed to ten feet in response to public comment from the previous workshops. This is on the spacing of floor inlets used in conjunction with wall inlets. (2-502.2 I 3)
- Added from the NAC, that inlets shall be placed not less than eighteen inches below the water level of the pool. (2-502.2 J 6)
- Added that a minimum of two skimmers is provided for each aquatic venue. (2-502.4 B)
- Removed the wording 'the base of' each skimmer shall be level with all other skimmers. Each skimmer itself needs to be level with all the other skimmers. (2-502.4 M)
- Under Submerged Suction Outlet, added unless an unblockable drain cover design is provided, then you need a minimum of two hydraulically balanced filtration system outlets are required at the bottom. This part is relevant to the previous definition of unblockable drain cover. (2-502.5 B)
- Instead of outlets need to be equally spaced from the pool side wall, they need to be spaced no more than fifteen feet from the pool side walls. (2-502.5 C)
- On the equation where we are talking about volume, we just cleaned up the equation. It was a bit redundant when it had an A and a B so we combined it into one. (2-502.5 F 2 a)
- Under provisions for complete drainage of all aquatic piping, added 'designed with no less than a 2% slope.' That came directly from NAC 444 to provide clarity so there is an actual value that people can use to measure this requirement as they build. (2-502.6 C 1)
- It was pointed out that the manufacturers don't provide the Net Positive Suction Head values for the pumps so we removed that requirement. (2-502.7 C 6)
- Removed 'a backup means of flow control as well as' for system isolation. You still need to have a manual adjustable discharge valve to provide for system isolation but it should not be part of the design that you put in an oversized pump in your circulation system with the intent of throttling it down for routine operations. That's not an appropriate practice. It puts way too much work on that piece of equipment and burns them out. You should have a properly sized pump for your system. (2-502.8 C)
- Removed the turnover rate for party pools. (2-502.9)
- Corrected references.
- Removed the requirement for backwashing of individual filters in response to the previous public workshop where it was pointed out that when you have inline sand filters, it's not a typical practice to construct it so they can be backwashed separately. (2-503.2)
- Under automated controllers, we added in a five year compliance schedule following the implementation date of the regulations. (2-504.2 V)
- Removed party pools from secondary disinfection system requirements. (2-504.3)
- Removed the reference to an optional secondary disinfection system; if it's an optional secondary system, it's a supplemental disinfection system so it really didn't make sense. (2-504.3 B)

2-6 – Decks and Equipment

No public comments.

- Cleaned up some wording. The previous wording was awkward. (2-601.1 C)
- Under the bridges section, changed a minimum clearance of seven feet from the bottom of the pool to eight feet from the bottom of the pool and not less than four feet from the top of the water to any structure overhead. This is consistent with the NAC 444 requirements. (2-601.7 G)
- Under diving boards and platforms, since we have deferred to the other certifying agencies for all of these requirements, we added 'and equipment.' Construction of the pool itself and all the associated diving equipment would fall under their standards as well. (2-602.1)
- Added in the words 'public access' for gates exiting an enclosure shall not require the use of a key or tool. The intent was never to prohibit the use of maintenance gates to pool enclosures that weren't used by the public. Public gates need to be able to be exited without the use of a key or tool. (2-604.3 G)
- Corrected references. (2-604.3 K)
- We removed the requirement for the elimination of the use of extension cords with a robotic cleaning power system. If it's required to be plugged into a GFCI circuit, it really doesn't matter if you are using an extension cord or not. (2-605.6)

2-7 – Recirculation Equipment Room

No public comments.

- Added indoor equipment room floors shall be made of concrete or other suitable material. There was some confusion with the original statement that outdoor equipment rooms had to be entirely paved and that wasn't the intent. (2-701.1)
- Removed the requirement that equipment room floors shall be sloped and equipped with drains to prevent water from pooling because it is previously stated above. (2-701.6 B)
- We changed the word 'barrier' to 'enclosure' due to how those words are defined. A barrier doesn't necessarily completely surround an area and an enclosure does. (2-702.1)

2-8 – Hygiene Facilities

No public comments.

- Changed 'space' to 'surface area' for consistency of wording. (2-804.2 A)

2-9 – Water Supply and Wastewater Disposal

No public comments.

2-10 – Special Use Aquatic Venues

No public comments.

- Under the spa section, added in where spa depths are greater than twenty-four inches, the steps shall be provided in accordance with Section 2-304. The cross reference was in response to the previous public workshop comments. The original portion where spa depths are greater than twenty-four inches came out of NAC 444. (2-1002.3)
- Added a point of egress equipped with a handrail must be provided for every fifty feet of perimeter or major portion thereof came out of NAC 444. (2-1002.3 A 1)
- Eliminated 'spas may be located adjacent to other aquatic venues as long as they are recessed in the deck.' That statement caused confusion at the previous public workshop and it doesn't add any value to the regulations so it was removed. (2-1002.4)
- Added a section on suction outlets related to the jet system. We had only addressed those related to the circulation system. (2-1002.8)
- Added in a cross reference for landing pools and their step requirements as a result of the previous public workshops. (2-1003.5 A)
- Changed the requirement on caisson barriers for wave pools. They need to have gaps no bigger than two inches as opposed to four inches. This is consistent with the NAC. (2-1004.2 D)
- Under Wading Pools and Child Amusement Lagoons, added that features and devices installed shall be smooth, easily cleanable and of durable design intended for such use. This came directly out of NAC 444. (2-1008.1 C)
- Added a section prohibiting underwater lights in wading pools or child amusement lagoons. If someone really wants to put in underwater lights in that type of a venue, it could still be handled through the waiver process. (2-1008.2)
- Party Pools and Spas section has been completely removed. (2-1009)

SECTION 3 – Facility Operation and Maintenance

3-1 – Operating Permits

No public comments.

3-2 – Aquatic Facility Operation and Maintenance

No public comments.

- Corrections on cross referencing.

3-3 – Aquatic Venue Structure

No public comments.

3-4 – Indoor/Outdoor Environment

No public comments.

- Added in the statement, 'Beverages in a durable covered container may be consumed while in or partially in the aquatic venue.' For clarification, a container that can be crushed in your hand is not considered a durable container. Something you can't crush with your hand would be considered durable and would be fine. No one will make a comment if water in a water bottle is being used either as long as it's just water. Your mixed drinks, drinks with a lot of sugar content, and alcohol that can impair your water chemistry need to be in a durable container. (3-407.1 B)

3-5 – Recirculation and Water Treatment

No public comments.

- Changed 'after' to 'following' to clean up wording for stabilized chlorine products. (3-503.1 C 3)
- Added additional requirements for compressed chlorine gas. Those all came directly out of the NAC. They only apply to one facility. As of 1996, you have not been allowed to install a new facility with chlorine gas for your disinfection. (3-503.1)
- Under Chlorine Dioxide, added clarification. There was confusion last time about this applying to all water systems for some of the resorts. This section is only referring to that process with your recirculation system, not with your entire property. (3-503.3 C 1)
- Under Feed Equipment, added 'five years following the implementation date.' This matches Section 2. (3-503.5 A)
- Same thing with the automatic controllers. (3-503.7 B)
- Cross referencing was fixed.
- Under Sample Collection, we realized that we went into a lot of detail on how you actually test the chemicals in your pool. If you are a certified operator, you would know how to properly test the chemicals in your pool so this section was removed. (3-504)
- Under Water Clarity, we are going by the same standard that we use today with the main suction outlet pattern that will be the determining factor on whether your pool meets water clarity standards. Before, with the bottom, it had to do with the installation of the 4x4 inch square at the bottom of your pool and everyone would have to install those. It's easier to use what we already have so we removed the other section. (3-506)
- Added a section for Water Supply and Disposal. It came to our attention that we addressed all of the factors in Section 2 but that only applies to new construction. It was completely eliminated from existing facilities so it's basically a cross reference to that other section. Sump pits for your waste water would only be for new construction but all other requirements about your indirect connection

to plumbing still apply to existing facilities including your cross connection control for your water supply and having an approved water supply that meets drinking water standards (3-507)

3-6 – Decks and Equipment

No public comments.

- Changed wording on UV protection for lifeguards due to public comment received at the last workshop and also in reevaluating this section. It's not our goal to provide employee protection; that is OSHA's role. Our goal is to making sure your lifeguards remain vigilant and are provided an atmosphere that allows them to be vigilant both by not becoming overly exhausted from direct sun hitting them and also not allowing the glare from the sun to inhibit their vision. This issuance of sun block is between the company and its employees. (3-603.5 B)
- Added the dimensions for reaching pole. This is in the section above where you don't have lifeguards. We wanted to make sure we had the same dimensions for a reaching pole in either situation. (3-603.7 H)

3-7 – Chemical Storage and Use

No public comments.

3-8 – Hygiene Facilities

No public comments.

- Corrected references. (3-801.6 D)

3-9 – Special Use Aquatic Venues and Features

No public comments.

- Party pools and spas section was completely removed. (3-907)
- Corrected references. (3-907.5)

SECTION 4 – Policies and Management

4-1 – Qualified Operator Requirement

No public comments.

4-2 – Lifeguard Training

No public comments.

- Added attendant and attendant qualifications because the NAC allows for the use of attendants for monitoring flume exits and entrances. It's a lesser requirement; they do still have to have appropriate certifications with CPR and first aid but it's not a full lifeguard qualifications. We didn't want to eliminate the opportunity for facilities to use attendants when they have a number of those types of applications. All of this came directly out of NAC 444. (2-201)

4-3 – Facility Staffing

No public comments.

- Added that at least one lifeguard will be required for every 2,000 square feet or major fraction thereof. That came directly out the NAC. If somebody would like to use fewer lifeguards, they would need to use an independent lifeguard auditing entity to provide documentation supporting the reduction of lifeguards needed to properly patrol the area. (4-303.2 A)
- Removed the ten minute break requirement and included that station rotation would be included in that breaking up of tasks. However, during our November 18 workshop, there was further concern about this. The comment received was that we needed more than just a quick move to the next station to break that train. We are going to consider some new wording on this. If anyone present today has suggestions on how to get that intent clearly worded, let Ms. Raiche-Curl know. We don't want someone sitting in the hot sun all day without a mental break so they can remain focused. Ms. Raiche-Curl would appreciate any input that can be provided. (4-303.3 C 1)
- Under Attendant Staff, added that attendants must have a method of communication between the entry attendant and the runout attendant. That came directly from NAC 444 so they are able to stop the slide action if something happens at the end. (4-304.4)

4-4 – Facility Management

- Under Hours of Operation, added the requirement that aquatic facilities without compliant lighting must limit hours of operation from dawn to dusk. This came directly out of NAC 444. (4-402.2 D 5)
- Corrected cross reference. (4-402.2 F 1)

***Alex Stokes (Wynn)** - I want to go back to 4-401.4 K where you talk about daily attendance at an aquatic facility. You under 1 in pools where attendance is not ordinarily recorded, a guest sign in book can be used to track attendance. The first question is why do you need to track attendance? And secondly have you noticed how people sign their names lately, a mark, a scribble, whatever so I mean saying to have a guest attendance sign in book really doesn't benefit you at all.*

***Jacque Raiche-Curl (SNHD)** – What was your number again, Alex?*

***Alex Stokes (Wynn)** – 4-401.4 K*

Jacque Raiche-Curl (SNHD) *– Ok. Currently, it's a requirement to track daily attendance now. This is not a new requirement. This is not something that came about in response to the Model Aquatic Health Code. The Nevada Administrative Code 444 also requires this. It's not so much knowing who attended but as knowing how many attended. An approximation of how many people are utilizing that facility each and every day so that they can have proper maintenance because if you have days where you know that you get 50 people using your pool in a day versus a day when you have 350 people using your pool. There is a difference in maintenance requirements and so forth. If you are dealing with a small facility like a homeowner's association or an apartment complex, maybe you have days where you have 10 people use it and you have days where you have 150 people use it. It's important for them to be able to track and respond appropriately to the different anticipated uses of the pool.*

Alex Stokes (Wynn) *– If you have security at all entrances and they use a clicker?*

Jacque Raiche-Curl (SNHD) *– That would be fine. The sign in book is just for those places that don't have a manned pool.*

Alex Stokes (Wynn) *– I mean you are only giving one example and I'm just wanting clarity on that is all.*

Jacque Raiche-Curl (SNHD) *- A clicker would be fine.*

Alex Stokes (Wynn) *– Ok. Thank you.*

Jackie Reszetar (SNHD) *– Just know that it states in the regulations that a guest sign in book can be used to track attendance.*

Jacque Raiche-Curl (SNHD) *– Not that it must.*

Jackie Reszetar (SNHD) *– Do you need clarification on that? Would you like extra verbiage to clarify that or can we leave it as is?*

Alex Stokes (Wynn) *– Other examples like using a clicker. It's misleading. (Some comments made from the back of the room were inaudible.)*

Jacque Raiche-Curl (SNHD) *– I got it.*

Jackie Reszetar (SNHD) *– Ok. We got it.*

Jacque Raiche-Curl (SNHD) *– I have wording in mind that we can change it to to add clarity.*

4-5 – Fecal/Vomit/Blood Contamination Response

No public comments.

- Changed wording for clarity. (4-502.2 A)

4-6 – Additional Requirements for Special Use Aquatic Venues

- The entire section was removed.

Chris Norman (Cowabunga Bay) *– In the last meeting, I brought up in section 4-401.5 on the staff certifications on file. The listing that we present these to patrons upon request. Asking why this is still listed.*

Jacque Raiche-Curl (SNHD) *– We have not made any changes from the public workshop on the 18th. The previous changes when I refer to a previous public workshop, was the previous set that were held in October.*

Chris Norman (Cowabunga Bay) *– Wonderful.*

Jacque Raiche-Curl (SNHD) *– Ok.*

Chris Norman (Cowabunga Bay) *- Thank you.*

SECTION 5 – Compliance and Enforcement

5-1 – Provision for Conditions Not Addressed in These Regulations

No public comments.

5-2 – Prerequisites for Operation

No public comments.

5-3 – Waivers

No public comments.

Jacque Raiche-Curl (SNHD) *- This section I'm going into a little bit. We didn't make any changes to it but where waivers come in, for those of you who were not at the workshop held on the 18th, you notice that throughout the document, we removed all the references to party pools and party spas. We know that the conceptual operation that we thought of when we added those sections in hasn't gone away but*

there was some excellent feedback in the previous workshops that they are not all the same. We don't have a one size fits all type of operation. You have a day club operation. You have a regular hotel pool that on the weekend turns into more of a club style operation where you are adding a lot more people into that venue than maybe what it was designed for. Our concern, from a public health aspect, is that when you change the way that that body of water is operated, that somehow you are compensating for those changes. Ways that you can compensate for those changes, if you are going to increase your bather load, would be through increased filtration, possibly increased turnover rate which is also increased filtration. Additional disinfection too but there is a number of different formulas utilizing those methods that can be used to achieve the same result. Many facilities out there have already added additional filtration. Have either increased their filtration rate or added extra filters themselves. Some of them have secondary disinfection so rather than mandating a one size fits all, we are leaving it up to each facility themselves to determine what works for them. So if you have a pool that was designed with a capacity of 200 people but you want to operate it with a capacity greater than that and we're talking water capacity. We are not talking what Building Department is regulating with deck capacity. I'm strictly talking water capacity. Then in that instance, you would need to come in and apply for a waiver. Then you would state how you're going to control your water clarity, your disinfection levels, and those extra concerns that we would have as a result of your increased bather load. How are you going to monitor it? What do you already have in place? I know that there are facilities out there that do staff somebody onsite the entire time that they have an event. They do have extra protocols and maybe for their operation that is appropriate and that's what they need to do. And then we are going to spend the next year or two gathering information and seeing what works. If you already know that what you are doing works, that it's keeping your patrons safe, then that's all you need to do is outline what you are doing, submit it in the form of a waiver, and we will verify that what you are doing works and that you are following the plan that you submitted but basically we are leaving it up to you at this point. It was requested during the workshops on the 18th that we form some type of subcommittee or team to get together to flush out some of the ideas for how we can achieve this and protect public health and still allow the businesses to be successful. We will be organizing that but that will be later after the regulations are adopted. The waiver process isn't going to be instantaneous. It's not going to be something where the regulations pass in January and come March we expect you to have your waiver in place and ready to go. It is important to note though, whether you have a waiver in place or whether you don't, you still need to avoid operating with imminent health hazards present. That's never been acceptable so when we talk about imminent health hazards, if your pool looks like soup, a cream soup, you shouldn't have people in there. If you have no disinfection, you shouldn't have people in there. I just wanted to go through that waiver process because there was a lot of concern about that with the previous group.

5-4 - Responsibilities

No public comments.

5-5 – Enforcement, Inspections
No public comments.

5-6 – Imminent Health Hazards
No public comments.

Jacque Raiche-Curl (SNHD) *– I just want to point out with these, any of you who operate food establishments or are associated with venues that have food establishments, the idea of imminent health hazards is not new. It's been associated with pools in the past. It's the same things that people have been closed for in the past. Just like with your food establishment, you know if your power goes out or your water goes out because somebody broke a line, if you take appropriate action, if you close, if you take the immediate action that needs to be taken and you call to notify us to say hey this is what's going on. That's great. Then when you get things resolved, you call us to say hey this is what we did, this is where we're at. We may ask a couple of follow-up questions. You're good to go. There's no harm, no foul, no fines, nothing. We are all where we need to be. We know that you took the appropriate intervention steps to keep people safe and we move on. That's the same way that this is written with the imminent health hazards. If you have an imminent health hazard, you are strongly encouraged to contact the health authority. Let us know what steps you are taking, what you're doing to alleviate the risk to your patrons. Most of the time it's going to require a closure. It may not require a closure for a long time. Sometimes its 15 minutes or half an hour to get things balanced out but just contact and communication is the most important part of that.*

5-7 – Issuing Report and Obtaining Acknowledgment of Receipt
No public comments.

5-8 – Summary Suspension, Reinstatement and Revocation
No public comments.

5-9 – Suspension or Revocation of Qualified Operator or Pool Company Registration
No public comments.

5-10 – Notice and Service of Notice
No public comments.

5-11 – Abandonment Process
No public comments.

5-12 – Public Information
No public comments.

5-13 – Severability Clause
No public comments.

GENERAL PUBLIC COMMENTS PERIOD (2):
No public comments.

ADJOURNMENT:
Ms. Raiche-Curl thanked everyone for their participation and adjourned the meeting at 11:00 a.m.

Heather Hanoff, Administrative Secretary

12-14-16
Date

Public comments are verbatim and italicized.

AQUATIC FACILITY REGULATIONS
PUBLIC WORKSHOP MINUTES

Red Rock Conference Room
280 S. Decatur Blvd., Las Vegas, Nevada
November 28, 2016, 2:00 p.m.

PUBLIC PRESENT:
Ryan Talley, MGM Resorts
Scott Baker, MGM Resorts
Rod Hicken, Station Casinos
Pooneh Melton, Aria
Tom Barrett, MGM Resorts
Byron Autry, City Wide Pool Service
Michelle Flater, Wynn Las Vegas

SNHD STAFF PRESENT:
Jackie Reszetar
Jeremy Harper
Jacquelyn Raiche-Curl
Alicia Mitchell
Heather Hanoff
Paul Klouse
Candice Konold
Al Karns

INTRODUCTORY REMARKS:
Jacque Raiche-Curl opened the workshop at 2:03 p.m. by welcoming all those in attendance and announcing the purpose of the workshop on the Proposed Southern Nevada Health District Aquatic Facility Regulations, being held November 28, 2016.

Ms. Raiche-Curl announced that these meeting are being held pursuant to Nevada Revised Statutes Chapters 233B and 241 and to take testimony and consider proposed changes to the Southern Nevada Health District Aquatic Facilities draft regulations. These proposed regulations will update the existing regulations and mirror the Model Aquatic Health Code (MAC). They will be a comprehensive directive on how the aquatic health facilities are regulated.

In the event that the regulations are not presented at the January 26, 2017, Board of Health meeting, then they will be presented at the February 23, 2017, meeting at 8:30 a.m. in the Red Rock Conference room which is the same room as this workshop.

Ms. Raiche-Curl announced that these workshops have been duly noticed per NRS 233B and 241; public comments will be accepted until December 9, 2016. If there are any additional comments, feel free to provide them in email form to Ms. Raiche-Curl's email address which is posted on the SNHD website under the public notice for these regulations.

Ms. Raiche-Curl asked that people making public comment step up to the mike one person at a time, speak clearly, state your name and spell your last name for the record.

GENERAL PUBLIC COMMENT PERIOD (1):
No public comments.

PUBLIC COMMENTS ON THE DRAFT REGULATIONS:
Ms. Raiche-Curl went over the red line version of the draft, one section at a time. Changes are mentioned below and most were in response to public comments received during previous workshops. She invited the public to make public comments at the microphone during the review of each section.

SECTION 1 – Glossary

1-2 – Definitions
No public comments.

- Diaper Changing Station was removed. We've removed diaper changing stations from the entire document.
- Non-Substantial Alteration was added by request at a previous workshop.
- The reference to Party Pools or Spas was removed.
- Added examples of responsibilities for Qualified Operators.
- Added a definition for Unblockable Drain Cover in reference to a section of text that was modified later on in the document.

SECTION 2 – Facility Design and Construction

2-1 – Plan Submittal
No public comments.

- Added 'a minimum of' by hard copies plans that are submitted. We are still only requiring one set but if a contractor wishes to submit three or four sets, we will accommodate that need. (2-101.7 A)
- Added 'area' for area lighting for clarification. (2-102.2 B 9)
- Removed diaper changing stations. (2-102.2 G)

- Under occupancy, we took out the pool party density factor as well as deck density and stadium seating density. Deck Density and Stadium Density has been regulated by the Fire and Building Departments in the past so we are leaving that under their purview. (2-102.3 E 2 b)
- Cleaned up some wording with law. (2-103.1 B & 2-104.2)
- Under Replacement Equipment, the red line draft posted online took the entire section A out. When it was reviewed with one of the Board of Health members, it was requested that this section be added back in with modifications. Now when replacing like equipment, the aquatic facility owner shall submit technical verification to the Health Authority that the replacement is equal to the originally approved equipment. The verification needs to be submitted within five business days of the change. (2-103.3 A)

2-2 – Materials

No public comments.

- Wording for law cleaned up. (2.201.1 & 2-202.2 A)
- Added in the word 'loose' before pebbles to avoid confusion. We are not trying to eliminate the use of pebble tec type surfacing. (2-201.8)
- Added in the clarification 'building finishes.' We were not talking about a pool interior finish. (2-202.1)

2-3 – Aquatic Venue Structure

No public comments.

- Changed stairs wider than five feet shall have at least one additional handrail for every twelve feet of stair width to every ten feet of stair width. (2-305.4)
- For the dimensions of a recessed step, added in a depth of five inches. Previously it was stated a height of five inches and a width of twelve inches. The NAC has all three dimensions. (2-307.3)
- Under Ladder Handrails, changed the horizontal clear space between handrails to no less than eighteen inches instead of seventeen inches. That is the industry standard of equipment that can be ordered. (2-308.2 B)
- Under depth markers and markings, added the word horizontal at the public's request for clarity's sake. There was confusion on whether or not we were looking for vertical signs around the pool. (2-3018.1 D)

2-4 – Indoor/Outdoor Environment

No public comments.

- Corrected cross references. (2-401.4)

- Removed 'requiring lighting' since it was redundant. A previous section states that all pool areas do require lighting. (2-401.8)
- Wording for law cleaned up. (2-401.8)
- Added a section for Indoor Aquatic Facility Acoustics. This came from NAC 444. It has to do with placing things inside of a pool area such as decorative plants or other decorative objects that can absorb sound so you don't end up with extreme amounts of reverberation where you can't hear lifeguard communication. (2-403.1)
- Changed 'relevant law' to 'local codes and amendments.' (2-404)
- Under Spectator Areas, removed the dimensions, walkway spaces, etc. Those are really Building Department requirements rather than Health Department requirements. (2-4010.1)

2-5 – Recirculation System Design, Equipment and Water Treatment

Pooneh Melton (Aria) *- I just noticed in 2-4 with the renumbering, when you added the Indoor Facility, it through everything off and in the summary it say's up to 2-49 I think and it goes to 2-410.*

Jacque Raiche-Curl (SNHD) *– Right. We will be doing a final cleanup once all the changes are accepted. Thank you though!*

- Added in that inlets shall not extend from the wall or floor. You can't have something extending out of the wall or floor that bathers can get hung up on. (2-502.2 G)
- The spacing requirement no greater than twenty-five feet was changed to ten feet in response to public comment from the previous workshops. This is on the spacing of floor inlets used in conjunction with wall inlets. (2-502.2 I 3)
- Added from the NAC, that inlets shall be placed not less than eighteen inches below the water level of the pool. (2-502.2 J 6)
- Added that a minimum of two skimmers is provided for each aquatic venue. (2-502.4 B)
- Removed the wording 'the base of' each skimmer shall be level with all other skimmers. Each skimmer itself needs to be level with all the other skimmers. (2-502.4 M)
- Under Submerged Suction Outlet, added unless an unblockable drain cover design is provided, then you need a minimum of two hydraulically balanced filtration system outlets are required at the bottom. If an unblockable drain cover design is used, only one suction outlet is required. (2-502.5 B)
- Instead of outlets need to be equally spaced from the pool side wall, they need to be spaced no more than fifteen feet from the pool side walls to allow for appropriate circulation in the pool. (2-502.5 C)
- On the equation where we are talking about volume, we just cleaned up the equation. It was a bit redundant when it had an A and a B so we combined it into one. (2-502.5 F 2 a)

- Under provisions for complete drainage of all aquatic piping, added 'designed with no less than a 2% slope.' That came directly from NAC 444 to provide clarity so there is an actual value for designers and inspectors. (2-502.6 C 1)
- It was pointed out that the most manufacturers don't provide the Net Positive Suction Head values for the pumps so we removed that requirement. (2-502.7 C 6)
- Removed 'a backup means of flow control as well as' for system isolation. You still need to have a manual adjustable discharge valve to provide for system isolation but it should not be part of the design that you put in an oversized pump in your circulation system with the intent of throttling it down for routine operations. That's not an appropriate practice. It puts way too much work on that piece of equipment and burns them out. You should have a properly sized pump for your system. (2-502.8 C)
- Removed the turnover rate for party pools. (2-502.9)
- Removed the requirement for backwashing of individual filters in response to the previous public workshop where it was pointed out that when you have inline sand filters, it's not a typical practice to construct it so they can be backwashed separately. (2-503.2)
- Under automated controllers, we added in a five year compliance schedule following the implementation date of the regulations. (2-504.2 V)
- Removed party pools from secondary disinfection system requirements. (2-504.3)
- Removed the reference to an optional secondary disinfection system; if it's an optional secondary system, it's a supplemental disinfection system so it really didn't make sense. (2-504.3 B)
- Corrected cross references.

2-6 – Decks and Equipment

No public comments.

- Cleaned up some wording. The previous wording was awkward. (2-601.1 C)
- Under the bridges section, changed a minimum clearance of seven feet from the bottom of the pool to eight feet from the bottom of the pool and not less than four feet from the top of the water to any structure overhead. This is consistent with the NAC 444 requirements. (2-601.7 G)
- Under diving boards and platforms, since we have deferred to the other certifying agencies for all of these requirements, we added 'and equipment.' Construction of the pool itself and all the associated diving equipment would fall under their standards as well. (2-602.1)
- Added in the words 'public access' for gates exiting an enclosure shall not require the use of a key or tool. The intent was never to prohibit the use of maintenance gates to pool enclosures that weren't used by the public. Public gates need to be able to be exited without the use of a key or tool. (2-604.3 G)
- Corrected cross reference. (2-604.3 K)

- We removed the requirement for the elimination of the use of extension cords with a robotic cleaning power system. If it's required to be plugged into a GFCI circuit, it really doesn't matter if you are using an extension cord or not. (2-605.6)

2-7 – Recirculation Equipment Room

No public comments.

- Added indoor equipment room floors shall be made of concrete or other suitable material. There was some confusion with the original statement that outdoor equipment rooms had to be entirely paved and that wasn't the intent. The equipment will still need to be mounted on concrete platforms, but not the entire area. (2-701.1)
- Removed the requirement that equipment room floors shall be sloped and equipped with drains to prevent water from pooling because it is previously stated above. (2-701.6 B)
- Changed the word 'barrier' to 'enclosure' due to how those words are defined. A barrier doesn't necessarily completely surround an area and an enclosure does. (2-702.1)

2-8 – Hygiene Facilities

No public comments.

- Changed 'space' to 'surface area' for consistency of wording. (2-804.2 A)

2-9 – Water Supply and Wastewater Disposal

No public comments.

2-10 – Special Use Aquatic Venues

No public comments.

- Under the spa section, added in where spa depths are greater than twenty-four inches, the steps shall be provided in accordance with Section 2-304. The cross reference was in response to the previous public workshop comments. The original portion where spa depths are greater than twenty-four inches came out of NAC 444. (2-1002.3)
- Added a point of egress equipped with a handrail must be provided for every fifty feet of perimeter or major portion thereof came out of NAC 444. (2-1002.3 A 1)
- Eliminated 'spas may be located adjacent to other aquatic venues as long as they are recessed in the deck.' That statement caused confusion at the previous public workshop and it doesn't add any value to the regulations so it was removed. (2-1002.4)
- Added a section on suction outlets related to the jet system. We had only addressed those related to the circulation system. (2-1002.8)

- Added in a cross reference for landing pools and their step requirements as a result of the previous public workshops. (2-1003.5 A)
- Changed the requirement on caisson barriers for wave pools. They need to have gaps no bigger than two inches as opposed to four inches. This is consistent with the NAC. (2-1004.2 D)
- Under Wading Pools and Child Amusement Lagoons, added that features and devices installed shall be smooth, easily cleanable and of durable design intended for such use. This came directly out of NAC 444. (2-1008.1 C)
- Added a section prohibiting underwater lights in wading pools or child amusement lagoons. If someone really wants to put in underwater lights in that type of a venue, it could still be handled through the waiver process. (2-1008.2)
- Party Pools and Spas section has been completely removed. (2-1009)

SECTION 3 – Facility Operation and Maintenance

3-1 – Operating Permits

No public comments.

3-2 – Aquatic Facility Operation and Maintenance

No public comments.

- Corrected cross referencing.

3-3 – Aquatic Venue Structure

Pooneh Melton (Aria)- *Sorry I wasn't at the last two sessions so I just want to get clarification on 3-407.1 Decks, bathers shall not eat while in or partially in aquatic venue water except in designated areas located at least four feet from the water's edge. Beverages in a covered container may be consumed while in or partially in the aquatic venue. Can you just clarify for me what that would mean because I'm trying to get ready for next season so I understand policies and procedures?*

Jacque Raiche-Curl (SNHD) – *Absolutely and I even had my examples ready; we just weren't there yet so let me just double-check that's the next section. It is. Okay. So due to the request of industry during the last set of public workshops, we modified this section 3-407.1 B to beverages in a durable container may be consumed while in or partially in an aquatic venue. So if you've got a cup like this that I can crush with my hand that is not a durable container. It's also not water resistant. If you've got a container like this It does not have to be this durable by the way but something that you can't crush. That would be acceptable. If you have a, let's pretend that this is water and not tea. If you have a water bottle and it contains water, we are going to leave*

that alone because it is just water. But if you have other types of beverages like margaritas or other yummy things, sweet sugary drinks, things like that, you don't want that in your pool so it needs to be something that. This would be a fine material. I know you can crush it but it's not flimsy. Okay. You know if you dropped it in the water and it's covered, it's going to float.

***Pooneh Melton (Aria)** - Okay.*

***Jacque Raiche-Curl (SNHD)** – You are looking for something that will hold up a little bit and decrease the likelihood of actual contamination of your pool.*

***Pooneh Melton (Aria)** – Okay so plastic is fine as long as it's somewhat. I mean obviously plastic, that can be crushed by the right person.*

***Jacque Raiche-Curl (SNHD)** – Unless it's actually a decent bottle but you know like some of the water bottles that they make today are really, really thin plastic. I wouldn't put anything in those except for water.*

***Pooneh Melton (Aria)** – How about like with, because here it doesn't say anything about straws, so obviously with a lid but I just want to make sure that straws are cause they have to be able to drink it if they're in the water.*

***Jacque Raiche-Curl (SNHD)** – Right. No, straws are fine.*

***Pooneh Melton (Aria)** – Okay and then*

***Paul Klouse (SNHD)** – That wasn't our intent.*

***Jacque Raiche-Curl (SNHD)** – But you want to be careful on the kinds of straws that you use too. I mean just consider the stuff that gets thrown into your skimmers and goes through your circulation systems too.*

***Pooneh Melton (Aria)** – Okay and how about, I would presume beer cans are crushable and their openings aren't really covered but I just want to understand that portion. And then also, they have aluminum bottles that have, those are a lot harder to crush but then again their openings are much bigger at than the beer can openings so just trying to get clarification on that. Sorry.*

Jacque Raiche-Curl (SNHD) *– I don't know that we have really thought that through to that extent but*
Paul Klouse (SNHD) *– That's been something that's been acceptable for the pool deck but not necessarily in or partially in as this particular regulation directs.*

Pooneh Melton (Aria) *– Okay, so that's what I want to get clarification on. Alright. Thank you very much.*

3-4 – Indoor/Outdoor Environment

- Added in the statement, 'Beverages in a durable covered container may be consumed while in or partially in the aquatic venue.' For clarification, a container that can be crushed in your hand is not considered a durable container. Something you can't crush with your hand would be considered durable and would be fine. No one will make a comment if water in a water bottle is being used either as long as it's just water. Your mixed drinks, drinks with a lot of sugar content, and alcohol that can impair your water chemistry need to be in a durable container. (3-407.1 B)

3-5 – Recirculation and Water Treatment

No public comments.

- Changed 'after' to 'following' to clean up wording for stabilized chlorine products. (3-503.1 C 3)
- Cross referencing was fixed.
- Added additional requirements for compressed chlorine gas. Those all came directly out of the NAC. They only apply to one facility in all of Clark County and they are not here. (3-503.1)
- Under Chlorine Dioxide, added clarification. There was confusion last time about this applying to all water systems for some of the resorts. This section is only referring to that process with your recirculation system, not with your entire property. (3-503.3 C 1)
- Under Feed Equipment, added 'five years following the implementation date.' This matches Section 2. (3-503.5 A)
- Same thing with the automated controllers. An automated controller shall be required within two years following the implementation date of these regulations for increased risk aquatic venues and five years for all other aquatic venues. Increased risk aquatic venues are defined in Section 2 as well as in the definition section. Its venues intended to be used by children under the age of five or anyone health compromised persons. (3-503.7 B)
- Under Sample Collection, we realized that we went into a lot of detail on how you actually test the chemicals in your pool. If you are a certified operator, you would know how to properly test the chemicals in your pool so this section was removed. (3-504)
- Under Water Clarity, we are going by the same standard that we use today with the main suction outlet pattern that will be the determining factor on whether your pool meets water clarity

standards. Otherwise, the alternative is for everybody to install a 4x4 dart tile marker at the bottom of all their pools. (3-506)

- Added a section for Water Supply and Disposal. It came to our attention that we addressed all of the factors in Section 2 but that only applies to new construction. It was completely eliminated from existing facilities so it's basically a cross reference to that other section. Sump pits for your waste water would only be for new construction but all other requirements about your indirect connection to plumbing still apply to existing facilities including your cross connection control, appropriate air gaps, having an approved water supply that meets drinking water standards, and your waste needs to go to sewer. (3-507)

3-6 – Decks and Equipment

No public comments.

- Changed wording on UV protection for lifeguards. Overhead protection needs to be provided so they can remain alert and not be sitting in direct sunlight where their attention span is going to start to wonder. With sun exposure, we need to look more at is that sun exposure causing glare that is going to inhibit their visual acuity in monitory those bathers. Those are the areas we are concerned with. (3-603.5 B)
- Added the dimensions for reaching pole. This is in the section above where you don't have lifeguards. We wanted to make sure we had the same dimensions for a reaching pole in either situation. (3-603.7 H)

3-7 – Chemical Storage and Use

No public comments.

3-8 – Hygiene Facilities

No public comments.

- Corrected the cross reference. (3-801.6 D)

3-9 – Special Use Aquatic Venues and Features

No public comments.

- Party pools and spas section was completely removed. (3-907)
- Corrected the cross reference. (3-907.5)

SECTION 4 – Policies and Management

4-1 – Qualified Operator Requirement

No public comments.

4-2 – Lifeguard Training

No public comments.

- Added attendant and attendant qualifications because the NAC allows for the use of attendants for monitoring flume exits and entrances. It's a lesser requirement; they do still have to have appropriate certifications with CPR and first aid but it's not a full lifeguard qualifications. We didn't want to eliminate the opportunity for facilities to use attendants when they have a number of those types of applications. All of this came directly out of NAC 444. (2-201)

4-3 – Facility Staffing

No public comments.

- Added that at least one lifeguard will be required for every 2,000 square feet or major fraction thereof. That came directly out the NAC. If somebody would like to use fewer lifeguards, they would need to use an independent lifeguard auditing entity to provide documentation supporting the reduction of lifeguards needed to properly patrol the area. (4-303.2 A)
- Removed the ten minute break requirement and included that station rotation would be included in that breaking up of tasks. However, during our November 18 workshop, there was further concern about this. The comment received was that we needed more than just a quick move to the next station to break that train. We don't want someone sitting in the hot sun all day without a mental break so they can remain focused. We are going to consider some new wording on this with a time associated with it. Let Ms. Raiche-Curl know if anyone has suggestions on how to get that intent clearly worded. She would appreciate any input that can be provided. (4-303.3 C 1)
- Under Attendant Staff, added that attendants must have a method of communication between the entry attendant and the runout attendant. That came directly from NAC 444 so they are able to stop the slide action if something happens at the end. (4-304.4)

4-4 – Facility Management

- Under Monitoring and Testing Records, there seemed to be confusion on using a guest sign in book to track attendance at pools were attendance is not ordinarily recorded so we are taking that part out. It's just going to say the daily attendance at an aquatic facility does need to be records. Each operator for the venues can decide how they wish to do that. It's not a new requirement; the NAC currently requires that daily attendance be monitored and logged. (4-401.4 K 1)

- We realized that we left out the no smoking requirement. The NAC states very clearly that you cannot have smoking in a pool enclosure so we added that into the signage requirements. (4-402.2)
- Under Hours of Operation, added the requirement that aquatic facilities without compliant lighting must limit hours of operation from dawn to dusk. This came directly out of NAC 444. (4-402.2 D 5)
- Corrected cross reference. (4-402.2 F 1)

4-5 – Fecal/Vomit/Blood Contamination Response

No public comments.

- Changed wording for clarity. (4-502.2 A)

4-6 – Additional Requirements for Special Use Aquatic Venues

- The entire section was removed.

SECTION 5 – Compliance and Enforcement

5-1 – Provision for Conditions Not Addressed in These Regulations

No public comments.

5-2 – Prerequisites for Operation

No public comments.

5-3 – Waivers

No public comments.

Jacque Raiche-Curl (SNHD) *– For those of you who didn't attend the previous two workshops this round, you noticed that we removed all of the references to the pool party section. The way that we'll be handling that because the function of a pool party isn't going to go away. We recognized through the public comment section in the last set of workshops that there is a variety of what we would consider pool parties. Those venues that increase the volume of bathers within their pools from what it was originally designed for but we also recognize that there are a number of ways to cope with that change. By having a waiver, it allows each facility to come up with their own plans, many of which have already been implemented into those venues where they can document what they want to do. I want to change my bathing capacity from this number to this number and this is what we are going to do in response to that change so maybe they installed more filtration already. Maybe they have increased their turnover rate. Maybe they have a secondary disinfection. Whatever it is; it could be other things. Maybe they've come up with something I haven't thought of but they are going to document that. We are going to*

determine if they are doing what they said that they're doing and if it's effective and they can operate without any imminent health hazards then that's the ultimate goal. The waivers, we will have a timeframe for those waivers to be developed and submitted. It's not going to be immediate where the regulations get adopted in January and by March we expect to have all those waivers in place. There will be a timeframe established and we will be working with industry to have a smooth transition into that.

5-4 - Responsibilities

No public comments.

5-5 – Enforcement, Inspections

No public comments.

5-6 – Imminent Health Hazards

No public comments.

- Modified wording to add clarification. (5-601.1)

5-7 – Issuing Report and Obtaining Acknowledgment of Receipt

No public comments.

5-8 – Summary Suspension, Reinstatement and Revocation

No public comments.

5-9 – Suspension or Revocation of Qualified Operator or Pool Company Registration

No public comments.

5-10 – Notice and Service of Notice

No public comments.

5-11 – Abandonment Process

No public comments.

5-12 – Public Information

No public comments.

5-13 – Severability Clause

No public comments.

GENERAL PUBLIC COMMENTS PERIOD (2):
No public comments.

ADJOURNMENT:
Ms. Raiche-Curl thanked everyone for their participation and adjourned the meeting at 2:54 p.m.

Heather Hanoff

Heather Hanoff, Administrative Secretary

12-14-16

Date

Public comments are verbatim and italicized.