OREGON HEALTH AUTHORITY

Oregon Public Aquatic Facility Rules

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OAR 333-062 – Aquatic Facility Operations and Maintenance

Public Pool Program
Food, Pool & Lodging Health and Safety Program

Oregon Public Aquatic Facility Rules
OAR 333-062

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1.0 Glossary of Abbreviations [Deleted]

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2.0 Glossary of Terms

“Accessible Route” means access/egress standards as defined by 2010 ADA Standards for Accessible Design.

“Activity Pool” *See “Pool.”*

"Approved" means approved in writing by the Oregon Health Authority (Authority).

“Aquatic Facility” means a physical place that contains one or more aquatic venues and support infrastructure.

“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 public is exposed to water intended for recreational or therapeutic purpose and where the primary intended use is not watering livestock, irrigation, water storage, fishing, or habitat for aquatic life. 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)*, waterslide landing pools, spray pads, and other interactive water venues.

- **"General-Use"** means any aquatic venue other than a limited-use aquatic venue. Aquatic venues operated in conjunction with a companion facility but not limited to use of the residents, patrons or members of the companion facility are general-use aquatic venues.
- **“Increased Risk Aquatic Venue”** means an aquatic venue which due to its intrinsic characteristics and intended users has a greater likelihood of affecting the health of the bathers of that venue by being at increased risk for microbial contamination *(e.g., by children ages less than 5 years)* 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 and other aquatic venues designed for children ages less than 5 years as well as therapy pools.
- **“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 play features and devices. A lazy river may also be referred to as a tubing pool, leisure river, leisure pool or a current channel.
- **“Limited-Use"** means any aquatic venue located at and operated in connection with a companion facility such as a residential housing facility having five or more living units, travelers' accommodations, mobile home park, recreation park, boarding school, organizational camp, dude ranch, club or association where use of the aquatic venue is limited to residents, patrons or members of the companion facility.
- **“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 usually drained and refilled after each use. It may include, but is not limited to, hydrotherapy, air induction bubbles, and recirculation.
- **“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 rules and is designed specifically for sporting or recreational purposes. **“Aquatic Venue”** does not include:
    - A basin that is drained and refilled with potable water between each use and does not have a recirculation system with filtration and sanitizing equipment,
    - A private aquatic venue onboard a watercraft,
    - A floatation tank, or
    - A therapy pool.

"Athletic club" means a facility constructed to provide athletic or physical conditioning for its members, guests or patrons. It includes but is not limited to racquetball clubs, health spas and fitness facilities.

“Authority” means the Oregon Health Authority or Authority Having Jurisdiction.

“Authority Having Jurisdiction” *(AHJ)* means the Oregon Health Authority, Local Public Health Authority, or an agency, organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, installations, or procedures.

"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.
"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 deter direct access from one point to another.
"Bather" means a person at an aquatic venue who has contact with water either through spray or partial or total immersion. The term bather as defined, also includes staff members, and refers to those users who can be exposed to contaminated water as well as potentially contaminate the water.
"Bather Count" means the number of bathers in an aquatic venue at any given time.
"Bather Load Capacity", *see Maximum Bather Load*
"Bathhouse", *see Hygiene Facility*
"Best Practice" means a technique or methodology that, through experience and research, has been proven to reliably lead to a desired result.
"Body of Water" *(per NEC, q.v.)* means any aquatic venue holding standing water, whether permanent or storable.
"Breakpoint Chlorination" means the conversion of inorganic chloramine compounds to nitrogen gas by reaction with Free Available Chlorine. 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 10 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."
"Builder" means a person who, in the pursuit of an independent business, undertakes, or offers to undertake, or submits a bid, to construct, alter, repair, or improve any aquatic venue and its appurtenances.
"Bulkhead" means a movable partition that physically separates a pool into multiple sections.
"Certified, Listed, and Labeled" means equipment, materials, products, or services included in a list published by an ANSI—accredited certification organization where said equipment, material, product, or service is evaluated against specific criteria and whose listing either states that it meets identified standards or has been tested and found suitable for a specified purpose. In sections of this code where equipment, materials, products, or services are referred to with terms such as "approved", "verified", or similar terms to a referenced standard, these terms also mean "certified, listed, and labeled.
"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.
"Chlorine" means an element that at room temperature and pressure is a heavy greenish yellow gas with a characteristic penetrating and irritating smell; it is extremely toxic. It can be compressed in liquid form and stored in heavy steel tanks. When mixed with water, chlorine gas forms hypochlorous acid *(HOCl)*, the primary chlorine-based disinfecting agent, hypochlorite ion, and hydrochloric acid. HOCl dissociation to hypochlorite ion is highly pH dependent. Chlorine is a general term used which refers to HOCl 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, oxidized form. In contrast, chloride ion *(Cl^-)* is in the -1 oxidation state, which is the inert, reduced state. Available Chlorine is subdivided into Free Available Chlorine and Combined Available Chlorine. Pool chemicals containing Available Chlorine are both oxidizers and disinfectants. Elemental chlorine *(Cl_2)* is defined as containing 100% available chlorine. The concentration of Available Chlorine in water is normally reported as ppm (*mg/L*) "as Cl_2", that is, the concentration is measured on a Cl_2 basis, regardless of the source of the Available Chlorine.

- **"Combined Available Chlorine" or "Combined Chlorine" or "CAC" or "CC"** means the concentration of available chlorine present in the form of inorganic or organic chloramines. Combined available chlorine is less reactive than free available chlorine and organic chloramines are generally less reactive oxidizers than the inorganic chloramines. Combined chlorine is determined by taking the difference between the Total Chlorine *(TC)* and DPD-FC concentrations. CC = TC – DPD-FC.
- "**Cyanurate-bound available chlorine**" or "**CBC**" means the concentration of available chlorine that is bound to cyanurate.
- **"DPD Free Chlorine" or "DPD-FC"** means the FC *("free chlorine")* concentration from DPD-based test methods. The DPD-based test result for FC includes cyanurate-bound available chlorine as well as HOCl and OCl^-, that is, DPD-FC = FAC CBC. The terms DPD-FC and FAC would be interchangeable only in the absence of cyanuric acid.
- **"Free Available Chlorine" or "FAC" or "Free Chlorine Residual"** means the portion of the total available chlorine that is not "combined chlorine" or "cyanurate-bound available chlorine" and is primarily present as hypochlorous acid *(HOCl)* or hypochlorite ion *(OCl^-)*. Molecular chlorine *(Cl_2)*, trichloride *(Cl_3^-)*, and chlorine monoxide *(Cl_2O)* are also present at very low concentrations, depending on chlorine ion concentration, and these compounds are also counted as free available chlorine. The pH of the water determines the relative amounts of HOCl and OCl^-. HOCl is a very effective biocide and is the active biocide in pool water. OCl^- is also a biocide but acts more slowly than HOCl. Thus, chlorine is a more effective biocide at low pH than at high pH. A free chlorine residual must be maintained for adequate disinfection.
- **"Total Available Chlorine"** means the "TC" concentration from DPD-based test methods with iodide reagent added. All forms of available chlorine which react with iodide are measured as Total Available Chlorine *(TC)*.

"Circulation Path" 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.
"Cleansing Shower" *See "Shower."*
"Code" means a systematic statement of a body of law, especially one given statutory force.
"Combustion Device" means any appliance or equipment using fire. These include, but may not be limited to, gas or oil furnaces, boilers, pool heaters, domestic water heaters, etc.
"Construction Joint" means a watertight joint provided to facilitate stopping places in the construction process. Construction joints also serve as contraction joints which control cracking.
"Contaminant" means a substance that soils, stains, corrupts, or infects another substance by contact or association.
"Contamination Response Plan" means a plan for handling contamination from formed-stool, diarrheal-stool, vomit, and blood.
"Corrosive Material" means pool chemicals, fertilizers, cleaning chemicals, oxidizing cleaning materials, salt, de-icing chemicals, other corrosive or oxidizing materials, pesticides, and such other materials which may cause injury to people or damage to the building, air-handling equipment, electrical equipment, safety equipment, or fire-suppression equipment, whether by direct contact or by contact via fumes or vapors, whether in original form or in a foreseeably likely decomposition, pyrolysis, or polymerization form. Refer to labels and SDSs.
"Crack" means any and all breaks in the structural shell of a pool vessel or deck.
"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 Inactivation 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 inactivation 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 dry deck, perimeter deck, and pool deck.

(A) **"Dry Deck"** means all pedestrian surface areas within the enclosure not subject to frequent splashing or constant wet foot traffic. The dry deck is not perimeter deck or pool deck, which connects the pool to adjacent amenities, entrances, and exits. Landscape areas are not included in this definition.

(B) **"Perimeter Deck"** means the hardscape surface area immediately adjacent to and within 4 feet *(1.2 m)* of the water's edge.

(C) **Pool Deck"** means surface areas serving the aquatic venue, beyond perimeter deck, which is expected to be regularly trafficked and made wet by bathers.

"Design Professional" means a person who is registered or licensed to practice their respective design profession as defined by the local, state, territorial, federal, and tribal laws governing professional practice within the jurisdiction where the project is to be constructed.

"Diaper-Changing Station" means a hygiene station that includes a diaper-changing unit, handwashing sink, soap and dispenser, a means for drying hands, trash receptacle, and disinfectant products to clean after use.

"Diaper-Changing Unit" means a diaper-changing surface that is part of a diaper-changing station.

"Dichloramine" means a disinfection byproduct 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.

"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., ultraviolet radiation)* can be used.

"Disinfection Byproduct" *(DBP)* 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, water supply)*.

"Diving Pool" *See "Pool."*

"Drop Slide" *See "Slide."*

"Dry Deck" *See "Deck."*

"Electrical Interlock System" means a control mechanism that automatically disables pool equipment operation components like pumps, heaters and chemical feeders during pump failure, inadequate flow, or electrical faults to ensure safety.

"Emergency Action Plan" *(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 effectively prevent unpermitted, uncontrolled, and unfettered access. It is designed to resist climbing and to prevent passage through it and under it. Enclosure can apply to aquatic facilities or aquatic venues.

"EPA Registered" means all products regulated and registered under the Federal Insecticide, Fungicide, and Rodenticide Act *(FIFRA)* by the EPA.

"Equipment Room or Area" 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.

"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 a pool vessel used to relieve flexural stresses due to movement caused by thermal expansion/contraction.

"Fixture" *See "Plumbing Fixture"* or *"Hygiene Fixture."*

"Floatation Tank" *(a.k.a. Float Tank, Float Room/Pod/Spa/Chamber, Isolation Tank, or Sensory Deprivation Tank)* means a tub that contains a saturated solution of magnesium sulfate having a specific gravity of 1.23 to 1.3, provides a light and sound reduced environment, and is maintained at a temperature of approximately 92–96°F /33.3–35.6°C.

"Floatation Tank Solution" means a saturated solution of magnesium sulfate having a specific gravity of 1.23 to 1.3.

"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 Bath" means standing water in which bathers or aquatics staff rinse their feet.
"Free Chlorine Residual" or "Free Available Chlorine" *See "Chlorine.*
"Ground-Fault Circuit Interrupter" *(GFCI)* means a device for protection of personnel that de-energizes an electrical circuit or portion thereof in the event of excessive ground current.
"Handwashing Station" means a location which has a handwashing sink, adjacent soap with dispenser, hand drying device or paper towels and dispenser, and trash receptacle.
"Hygiene Facility" means an enclosed structure that may contain a toilet, shower, diaper-changing unit, handwashing station, and dressing capabilities serving bathers and patrons at an aquatic facility. Also referred to as a bathhouse.
"Hygiene Fixtures" means all components necessary for hygiene facilities including plumbing fixtures, diaper- changing stations, handwashing stations, trashcans, soap dispensers, paper towel dispensers or hand dryers, and toilet paper dispensers.
"Hyperchlorination" means the intentional and specific raising of chlorine levels for a prolonged period of time to inactivate pathogens following a fecal or vomit release in an aquatic venue.
"Imminent Health Hazard" means a substantial threat or danger to health that is considered to exist when there is evidence sufficient to show that a product, practice, circumstance, or event creates a situation that requires immediate correction or cessation of operation to prevent injury based on the number of potential injuries and the nature, severity, and duration of the anticipated injury or illness.
"Increased Risk Aquatic Venue" *See "Aquatic Venue."*
"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 Oregon Structural Specialty Code (OSSC). Indoor Aquatic Facility does not include equipment, chemical storage, or bather hygiene rooms or any other rooms with a direct opening to the aquatic facility. Otherwise known as a natatorium.
"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. They are often also referred to as "vanishing edges," "negative edges," or "zero edges."
"Inlet" means wall or floor fittings where treated water is returned to the pool.
"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 and spray pads. For the purposes of these rules, only those designed to recirculate water and intended for public use and recreation shall be regulated.
"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 a pool where the perimeter is completely surrounded by the pool water and the top is above the surface of the pool.
"**Landing Pool**" *See "Pool."*
"Lazy River" *See "Aquatic Venue."*
"Lifeguard Supervisor" means an individual responsible for the oversight of lifeguard performance and emergency response at an aquatic facility, who has successfully completed a lifeguard supervisor training course that meets the requirements of this code, and who holds a valid certificate for such training.
"mg/L" means milligrams per liter and is the equivalent metric measure to parts per million *(ppm)*.
"Maximum Bather Load" means the maximum number of bathers allowed in the pool at any given time, as determined by the available pool space, water circulation, and safety standards. It is calculated based on the size of the pool and applicable code requirements to ensure safe usage, proper water quality, and effective emergency response capabilities.

“Monitoring” means 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 a pool floor whose depth varies through the use of controls.
“No Diving Marker” means a sign with the words “No Diving” and the universal international symbol for “No Diving” pictured as an image of a diver with a red circle with a slash through it.
“Noise Criterion” means the single number rating that is somewhat sensitive to the relative loudness and speech interference properties of a given noise spectrum. The method consists of a family of criterion curves extending from 63 to 8,000 Hz and a tangency rating procedure. The criterion curves define the limits of octave band spectra that must not be exceeded to meet occupant acceptance in certain spaces.
“Non-Substantial Alteration” means any minor modification, repair, or maintenance work that does not significantly change the aquatic venue’s core structure, operational systems, or capacity.
“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.
“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.
“Oxidation Reduction Potential” *(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 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.
“Peninsula / 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 a weir or trough around the perimeter of a pool that is used to skim the surface of the water and return the water to the treatment system.
"Person" includes, in addition to the definition of “person” in ORS 174.100, municipalities, recreation districts, counties and state agencies, instrumentalities, or builder.
“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 hypochlorous acid *(HOCl)* 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; for example: toilets, urinals, showers, and hose bibs.
“Pool” means a subset of aquatic venues designed to have recirculated standing water that is chemically treated 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.
- **“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.
- **“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 general play intent for wave pools.
- **“Therapy Pool”** means a pool used exclusively for aquatic therapy, physical therapy, 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 wading and intended for use by young children where the depth does not exceed 2 feet (0.6 m).
- **“Wave Pool”** means any pool designed to simulate breaking or cyclic waves for purposes of general play. A wave pool is not the same as a surf pool, which generates 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 general play intent for wave pools.

“Pool Deck” See “Deck.”
“Pool Slide” *See “Slide.”*
"Private Swimming Pool" means any aquatic venue owned by no more than four individuals, either jointly, individually or through association, incorporation or otherwise, and operated and maintained in conjunction with a companion residential housing facility having no more than four living units, for the use of the occupants thereof and their personal friends only. Private swimming pools shall not be subject to the provisions of these rules.
“Public Water Systems” means water systems including community water systems, non-transient/non-community water systems, or transient non-community water systems with exceptions as noted by AHJ and EPA.
“Qualified Lifeguard” means an individual who has successfully completed a Council for Model Aquatic Health Code-certified lifeguard training program or equivalent approved by the Authority, 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.
“Qualified Operator” means a person performing the duties of the responsible supervisor, and responsible for providing direction and training to non-certified responsible supervisors and other pool personnel in regard to pool maintenance and operation. This person shall be certified by an organization providing training in pool safety, maintenance and operation recognized by the Division. Such courses and organizations include the Certified Pool Operator Program, by the Pool and Hot Tub Alliance, and the Aquatic Facility Operator Program, by the National Recreation and Parks Association, or equivalent, as determined by the Authority.
“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.
“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.
“Reduction Equivalent Dose *(RED)* Bias” 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 Supervisor” means an individual onsite that is responsible for water treatment operations when a “qualified operator” is not onsite at an aquatic facility.
“Rinse Shower” *See “Shower.”*
“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.
"Rope and Float Line" means a continuous line not less than 1/4" *(6 mm)* in diameter and that is supported by buoys spaced no more than 5 feet apart to provide a visual and physical separation of the pool areas.

"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 shall follow. These plans include training, emergency response, and operations procedures.
"Safety Team" means any employee of the aquatic facility with job responsibilities related to the aquatic facility's emergency action plan.
"Safety Vacuum Release System" *(SVRS)* means as defined in 15 USC 8002 (5) "a vacuum release system capable of providing vacuum release at a suction outlet caused by a high vacuum occurrence due to a suction outlet flow blockage." A SVRS may be a mechanical device installed on the exposed single main suction pipe before a filtration or feature pump or an electrical device located as an attachment to the filtration or feature pump control system or is integral with the filtration or feature pump or motor itself.
"Sanitize" means reducing the level of microbes to that considered safe by public health standards.
"Saturation Index" means a mathematical representation or scale representing the ability of water to deposit calcium carbonate, or dissolve metal, concrete, or grout.
"Secondary Treatment" 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.
"Shower" means a device that sprays water on the body.

- **"Cleansing Shower"** means a shower located within a hygiene facility using 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 byproducts.

"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.
"Skimmer Pool" *See "Pool."*
"Skimmer System" means periodic locations along the top of the pool wall for removal of water from the pool's surface for treatment.
"Slide" means an aquatic feature where users 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 in 16 CFR Part 1207 or is similar in construction to a playground slide used to allow users to slide from an elevated height to a pool. They shall include children's slides and all other non- flume slides that are mounted on the pool deck or within the basin of a pool.
- **"Waterslide"** means a slide that runs into a landing pool or runout through a fabricated channel with flowing water.
- "**Waterpark slide**" means a slide at an aquatic venue, which has a length of at least 20 feet (6.1m), not including the platform.

"Slip Resistant" means surfaces shall have a minimum dynamic coefficient of friction at least equal to the requirements of ANSI A137.1 and A326.3 for that installation as measured by the DCOF AcuTest.
"Spa" *See "Aquatic Venue."*
"Special Use Aquatic Venue" *See "Aquatic Venue."*
"Stadium Seating" means an area of high-occupancy seating provided above the pool level for observation.

“Standard” means something established by authority, custom, or general consent as a model or example.
“Storage” means the condition of remaining in one space for 1 hour or more. Materials in a closed pipe or tube awaiting transfer to another location shall not be considered to be stored.
“Structural Crack” means a break or split in the pool surface that weakens the structural integrity of the vessel.
“Substantial Alteration” means any major renovation, construction, or modification that significantly impacts the pool's structural, mechanical, or operational systems.
“Superchlorination” means the addition of large quantities of chlorine-based chemicals to kill algae, destroy odors, or improve the ability to maintain a disinfectant residual.
“Supplemental Treatment” 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.”*
“SVRS” *See “Safety Vacuum Release System.”*
*“***Swimming Pool” See** *“Pool.”*
“Therapy Pool” *See “Pool.”*
“Toe Ledge” See “*Underwater Ledge*.”
“Total Bromine” means the amount of bromine in the 1 oxidation state, which is the reactive, oxidized form. Commercially available test kits are not capable of distinguishing free bromine *(Br_2, HOBr, OBr^-)* from combined bromine *(bromamines)*. The bromine value specified in test results is the concentration of total bromine.
“Trichloramine” means a disinfection byproduct 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.
“Trihalomethanes” *(THM)* means chemical compounds in which three of the four hydrogen atoms of methane *(CH_4)* are replaced by halogen atoms. Trihalomethanes are environmental pollutants, and many are considered carcinogenic.
“Tripping Hazard” means any condition or object within or around the aquatic venue that poses a risk of causing a person to lose their balance, stumble, or fall. This includes, but is not limited to, uneven surfaces, protruding objects, and improperly secured or misplaced pool equipment.
"Turnover" or "Turnover Rate" or “Turnover Time” means the period of time, usually expressed in hours, required to circulate a volume of water equal to the capacity of the aquatic venue.
“Underwater Bench” means a submerged seat with or without hydrotherapy jets.
“Underwater Ledge” or “Underwater Toe Ledge” means a continuous step in the pool wall that allows swimmers to rest by standing without treading water.
“Underwater Shelf” means a shallow, flat area within a pool that extends horizontally from the pool wall. It is designed to be submerged in water, typically with a depth of 8 to 24 inches, providing a shallow space for lounging, play, or easy entry into the pool. Also referred to as a tanning ledge, sun shelf, or Baja shelf.
“UV Transmissivity” means the percentage measurement of ultraviolet light able to pass through a solution.
"Variance" means written permission from the Authority for an aquatic venue to be operated when it does not comply with all the applicable rules for aquatic venues.
“Wading Pool” *See “Pool.”*
“Waterslide” *See “Slide.”*
“Water Quality Testing Device” *(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.
“Water Replenishment System” means a way to remove water from the pool as needed and replace with make- up water to maintain water quality.
“Wave Pools” *See “Pool.”*

“Wing Wall / Peninsula” *See “Peninsula / Wing Wall.”*
“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.

3.0 Cited Standards and Laws [Deleted]

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5.0 Aquatic Facility Operation and Maintenance

The provisions of Chapter 5 apply to all AQUATIC FACILITIES covered by this CODE regardless of when constructed, unless otherwise noted.

Note: Section numbers with superscript "A" (e.g., 5.0A) denote a corresponding discussion in the Annex to the Model Aquatic Health Code.

5.1 Operating Permits

5.1.1 Owner Responsibilities

5.1.1.1 Permit to Operate Required Prior to opening to the public, the AQUATIC FACILITY owner shall apply to the AHJ for a permit to operate.

5.1.1.2 Separate A separate permit is required for each newly constructed or SUBSTANTIALLY ALTERED AQUATIC VENUE at an existing AQUATIC FACILITY.

5.1.1.3 Prior to Issuance Before a permit to operate is issued, the following procedures shall be completed:

1) 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 this CODE, and
2) The AHJ has approved the AQUATIC FACILITY to be open to the public.

5.1.1.4 Permit Details The permit to operate shall:

1) Be issued in the name of the owner,
2) List all AQUATIC VENUES included under the permit, and
3) Specify the period of time approved by the AHJ.

5.1.1.5 Permit Expiration Permits to operate shall terminate according to the AHJ schedule.

5.1.1.6 Permit Renewal The AQUATIC FACILITY owner shall renew the permit to operate prior to the scheduled expiration of an existing permit to operate an AQUATIC FACILITY.

5.1.1.7 Permit Denial The permit to operate may be withheld, revoked, or denied by the AHJ for noncompliance of the AQUATIC FACILITY with the requirements of this CODE.

5.1.1.8 Owner Responsibilities The owner of an AQUATIC FACILITY is responsible for the facility being operated, maintained, and managed in accordance with the requirements of this CODE.

5.1.2 Operating Permits

5.1.2.1 Permit Location The permit to operate shall be posted at the AQUATIC FACILITY in a location conspicuous to the public.

5.1.2.2 Operating Without a Permit Operation of an AQUATIC FACILITY or newly constructed or SUBSTANTIALLY ALTERED AQUATIC VENUE without a permit to operate shall be prohibited.

5.1.2.3 Required Closure The AHJ may order a newly constructed or SUBSTANTIALLY ALTERED AQUATIC VENUE without a permit to operate to close until the AQUATIC FACILITY has obtained a permit to operate.

5.2 Inspections

5.2.1 Preoperational Inspections

5.2.1.1 Terms of Operation The AQUATIC FACILITY may not be placed in operation until an inspection approved by the AHJ shows compliance with the requirements of this CODE or the AHJ approves opening for operation.

5.2.2 Exemptions [Deleted]

5.2.3[A] Variances [Deleted]

5.3 Equipment Standards [N/A]

5.4 Aquatic Facility and Venue Operation and Maintenance

5.4.1 Closure and Reopening

5.4.1.1[A] Closure If an AQUATIC VENUE is not open to the public, the following conditions shall be met to protect health and SAFETY:

5.4.1.1.1 Aquatic Venues With an Enclosure

Where the AQUATIC VENUE has an ENCLOSURE enclosing it per 4.8.6:

1) The water shall be recirculated and treated to meet the criteria of this CODE; or
2) The water shall be drained; and
3) Access to the AQUATIC VENUE shall be restricted and routine checks of the integrity of the AQUATIC VENUE ENCLOSURE shall be made.

5.4.1.1.2 Aquatic Venues Without an Enclosure but Open to the Public Where the AQUATIC VENUE does not have an ENCLOSURE enclosing it per 4.8.6 and other parts of the AQUATIC FACILITY are open to the public:

1) The water shall be recirculated and treated to meet the criteria of this CODE and the AQUATIC VENUE shall be staffed to keep BATHERS out;
2) The water shall be drained, and the AQUATIC VENUE shall be staffed to keep BATHERS out;
3) A temporary ENCLOSURE for the AQUATIC VENUE shall be installed to keep bathers out, and routine checks of the integrity of the temporary AQUATIC VENUE ENCLOSURE shall be made; or
4) An approved safety cover that is CERTIFIED, LISTED, AND LABELED to ASTM F1346-91 by an ANSI- accredited certification organization shall be installed, and routine checks of the integrity of the safety cover shall be made.

5.4.1.1.3 Aquatic Venues Without an Enclosure and Closed to the Public Where the aquatic venue does not have an enclosure enclosing it per 4.8.6, and the aquatic facility is closed to the public, one of the following options must be followed:

1) The water shall be recirculated and treated to meet the criteria of this CODE and all play equipment turned off;
2) The water shall be drained;

5.4.1.2[A] Reopening An owner or operator of a closed AQUATIC VENUE shall verify that the AQUATIC VENUE meets all applicable criteria of this CODE before reopening the AQUATIC VENUE. If the AHJ was present during the initial closure, the AHJ shall verify that the AQUATIC VENUE meets all applicable criteria of this code before reopening the AQUATIC VENUE.

5.4.2[A] Preventive Maintenance Plan

5.4.2.1 Written Plan

5.4.2.1.1 Preventive Maintenance Plan Available A written comprehensive preventive maintenance plan for each AQUATIC VENUE shall be available at the AQUATIC FACILITY.

5.4.2.1.2 Contents 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.

5.4.2.2[A] Facility Documentation

5.4.2.2.1 Original Plans and Specifications Available A paper or digital copy of the approved plans and specifications for each AQUATIC VENUE constructed after the adoption of this CODE shall be available at the AQUATIC FACILITY.

5.4.2.2.2 Equipment Inventory A comprehensive inventory of all mechanical equipment associated with each AQUATIC VENUE shall be available at the AQUATIC FACILITY.

5.4.2.2.3 Inventory Details 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.

5.4.2.2.4 Equipment Manuals A paper or digital copy of the operation manuals for all mechanical equipment associated with each AQUATIC VENUE shall be available at the AQUATIC FACILITY.

5.4.2.2.4.1 ***No Manual*** If no manufacturer's operation manual is available, then the AQUATIC FACILITY shall create a written document that outlines STANDARD operating procedures for maintaining and operating the piece of equipment.

5.4.3 General Operations [N/A]

5.4.3.1 Maximum Bather Load The MAXIMUM BATHER LOAD per 4.1.2.3.5 shall not be exceeded.

5.5 Aquatic Venue Structure

5.5.1 Shape [N/A]

5.5.2 Access Ladders

5.5.2.1 Securely Anchored Ladders, grab rails, and handrails shall be securely anchored.

5.5.3 Color and Finish [N/A]

5.5.4 Walls [N/A]

5.5.5[A] Depth Markings

5.5.5.1 Depth Markers Depth markers shall be provided in locations in accordance with 4.5.19 and maintained.

5.5.5.2 No Diving Markers NO DIVING MARKERS shall be provided in accordance with 4.5.19 and maintained.

5.5.5.3 Ropes and Float Lines ROPES AND FLOAT LINES shall be installed as required in 4.5.19.5.3, 4.12.2.5.2, 4.12.2.10.4.1, and 4.12.3.2.6.

5.5.6[A] Pool Shell Maintenance

5.5.6.1 Cracking

5.5.6.1.1 Repaired CRACKS shall be part of the daily inspection process and be repaired when they change sufficiently to increase the potential for:

1) Leakage,
2) Trips or falls,
3) Lacerations, or
4) Impact the ability to properly clean and maintain the AQUATIC VENUE area.

5.5.6.1.2 Document Cracks Surface CRACKS under 1/8 inch *(3.2 mm)* wide shall be documented and MONITORED for any movement or change including opening, closing, and/or lengthening.

5.5.6.1.3 Sharp Edges Any sharp edges shall be removed or repaired.

5.6 Indoor / Outdoor Environment

5.6.1 Lighting

5.6.1.1 Lighting Maintained

5.6.1.1.1[A] Light Levels 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 4.6.1.

5.6.1.1.2[A] Main Drain Visible The AQUATIC VENUE shall not be open if light levels are such that the main drain is not visible from poolside.

5.6.1.1.2.1 With an Enclosure The AQUATIC FACILITY may remain open for other events if the closed AQUATIC VENUE has an ENCLOSURE.
5.6.1.1.3[A] Underwater Lighting Underwater lights, where provided, shall be operational and maintained as designed.
5.6.1.1.3.1 Ground-Fault Circuit Interrupter All underwater lighting shall be GFCI protected.
5.6.1.1.3.2 Unprotected Light Circuit Operation of an unprotected underwater light circuit shall be prohibited.
5.6.1.1.4 Cracked Lenses CRACKED lenses that are physically intact on lights shall be replaced before the AQUATIC VENUE reopens to BATHERS.
5.6.1.1.5 Intact Lenses The AQUATIC VENUE shall be immediately closed if CRACKED lenses are not intact and the lenses shall be replaced before reopening.
5.6.1.2[A] Glare
5.6.1.2.1[A] Assessments The AQUATIC FACILITY owner shall ensure that glare conditions are assessed to determine if the AQUATIC VENUE bottom and objects in the POOL are clearly visible throughout operating hours.
5.6.1.2.1.1[A] Lifeguard Positions If the AQUATIC VENUE requires lifeguards, the AQUATIC FACILITY owner shall ensure that glare conditions are assessed from each lifeguard position as identified in the zone of PATRON surveillance to determine if the AQUATIC VENUE bottom and objects in the POOL are clearly visible to QUALIFIED LIFEGUARD staff throughout operating hours per 6.3.3.1.1.
5.6.1.2.2 Reduction Windows and lighting equipment shall be adjusted, if possible, to minimize glare and excessive reflection on the water surface.
5.6.1.3 Night Swimming Night swimming shall be prohibited unless required light levels in accordance with 4.6.1 are provided.
5.6.1.3.1 Hours Night swimming shall be considered one half hour before sunset to one half hour after sunrise.
5.6.1.4 Emergency Lighting Emergency lighting shall be tested and maintained according to manufacturer's recommendations.

5.6.2[A] Indoor Aquatic Facility Ventilation [Deleted]

5.6.3 Indoor / Outdoor Aquatic Facility Electrical Systems and Components
5.6.3.1[A] Electrical Repairs
5.6.3.1.1 Code Compliance Repairs or alterations to electrical equipment and associated equipment shall preserve compliance with the NEC or with all applicable local, state, territorial, federal, and tribal laws.
5.6.3.1.2 Immediately Repaired All defects in the electrical system shall be immediately repaired.
5.6.3.1.3 Wiring Electrical wiring, whether permanent or temporary, shall comply with the NEC and all applicable local, state, territorial, federal, and tribal laws.
5.6.3.2[A] Electrical Receptacles
5.6.3.2.1 New Receptacles The installation of new electrical receptacles shall be subject to all applicable local, state, territorial, federal, and tribal laws.
5.6.3.2.2 Repairs Repairs or maintenance to existing receptacles shall maintain compliance with all applicable local, state, territorial, federal, and tribal laws.
5.6.3.2.3 Replacement Replacement receptacles shall be of the same type as the previous ones *(e.g., grounding-type receptacles shall be replaced only by grounding-type receptacles)*, with all grounding conductors connected and proper wiring polarity preserved.
5.6.3.2.4 Substitutions Where the original type of receptacle is no longer available, a replacement and installation shall be in accordance with all applicable local, state, territorial, federal, and tribal laws.
5.6.3.3[A] Ground-Fault Circuit Interrupter
5.6.3.3.1 Manufacturer's Recommendations Where receptacles are required to be protected by GFCI devices, the GFCI devices shall be tested following the manufacturer's recommendations.

5.6.3.3.2 Testing Required GFCI devices shall be tested as part of scheduled maintenance on the first day of operation, and monthly thereafter, until the BODY OF WATER is drained and the equipment is prepared for STORAGE.

5.6.3.4[A] Grounding

5.6.3.4.1 Maintenance and Repair Maintenance or repair of electrical circuits or devices shall preserve grounding compliance with the NEC and all applicable local, state, territorial, federal, and tribal laws.

5.6.3.4.2 Grounding Conductors Grounding conductors that have been disconnected shall be re-inspected as required by the local building CODE authority prior to AQUATIC VENUE being used by BATHERS.

5.6.3.4.3 Damaged Conductors Damaged grounding conductors and grounding electrodes shall be repaired immediately.

5.6.3.4.4 Damaged Conductor Repair Damaged grounding conductors or grounding electrodes associated with recirculation or DISINFECTION equipment or with underwater lighting systems shall be repaired by a qualified person who has the proper and/or necessary skills, training, or credentials to carry out the task.

5.6.3.4.5 Public Access The public shall not have access to the AQUATIC VENUE until such grounding conductors or grounding electrodes are repaired.

5.6.3.4.6 Venue Closure The AQUATIC VENUE with damaged grounding conductors or grounding electrodes, that are associated with recirculation or DISINFECTION equipment or with underwater lighting systems, shall be closed until repairs are completed and then the AHJ inspects and approves.

5.6.3.5 Bonding

5.6.3.5.1 Code Compliance Maintenance or repair of all metallic equipment, electrical circuits or devices, or reinforced concrete structures shall preserve bonding compliance with the NEC and all applicable local, state, territorial, federal, and tribal laws.

5.6.3.5.2 Bonding Conductors Bonding conductors shall not be disconnected except where they will be immediately reconnected.

5.6.3.5.3 Disconnected Conductors The AQUATIC VENUE shall not be used by BATHERS while bonding conductors are disconnected.

5.6.3.5.4 Removable Covers Removable covers protecting bonding conductors *(e.g., at ladders)*, shall be kept in place except during bonding conductor inspections, repair, or replacement.

5.6.3.5.5 Scheduled Maintenance Bonding conductors, where accessible, shall be inspected visually every 6 months or whenever disrupted or impacted by site construction or other related events.

5.6.3.5.6 Corrosion Bonding conductors and any associated clamps shall not be extensively corroded.

5.6.3.5.7 Continuity Continuity of the bonding system associated with RECIRCULATION SYSTEM or DISINFECTION equipment or with underwater lighting systems shall be inspected by the AHJ following installation and any major construction around the AQUATIC FACILITY.

5.6.3.6 Extension Cords

5.6.3.6.1 Extension Cords and Temporary Connectors

Extension cords shall only be used temporarily for the duration of a swimming competition or sporting event, remodeling, maintenance, or repair of buildings, structures, or equipment with similar purposes. Extension cords and temporary power connectors shall not be used as a substitute for permanent wiring.

5.6.3.6.2 Minimum Distance from Water All parts of an extension cord shall be restrained at a minimum of 6 feet *(1.8 m)* away when measured along the shortest possible path from a BODY OF WATER during times when the AQUATIC FACILITY is open.

5.6.3.6.3[A] Exception An extension cord may be used within 6 feet *(1.8 m)* of the nearest edge of a BODY OF WATER if a permanent wall exists between the BODY OF WATER and the extension cord.

5.6.3.6.4 GFCI Protection The circuit supplying an extension cord shall be protected by a GFCI device when the extension cord is to be used within 6 feet *(1.8 m)* of a BODY OF WATER.

5.6.3.6.5 Code Compliance An extension cord incorporating a GFCI device may be used if that is acceptable under all applicable local, state, territorial, federal, and tribal laws.

5.6.3.6.6[A] Compliance The use of extension cords shall comply with 29 CFR 1910.304.

5.6.3.7 Portable Electric Devices Portable line-powered electrical devices, such as radios or drills, shall not be used within 6 feet *(1.8 m)* horizontally of the nearest inner edge of a BODY OF WATER, unless connected to a GFCI-protected circuit.
5.6.3.8[A] Communication Devices and Dispatch Systems The maintenance and repair of Communication Devices and Dispatch Systems shall preserve compliance with the NEC.

5.6.4 Facility Heating

5.6.4.1 Facility Heating

5.6.4.1.1[A] Maintenance and Repair Maintenance, repairs, and alterations to facility-heating equipment shall preserve compliance with applicable CODES.
5.6.4.1.2[A] Defects Defects in the AQUATIC FACILITY heating equipment shall be immediately repaired.
5.6.4.1.3[A] Temperature Air temperature of an INDOOR AQUATIC FACILITY shall be controlled to the original specifications or in the absence of such, maintain the dew point of the INTERIOR SPACE less than the dew point of the interior walls at all times so as to prevent damage to structural members and to prevent biological growth on walls.
5.6.4.1.4 Combustion Device Items shall not be stored within the COMBUSTION DEVICE manufacturer's specified minimum clearance distance.
5.6.4.2 Water Heating Maintenance, repairs, and alterations to POOL-water heating equipment shall preserve compliance with applicable CODES.

5.6.5 First Aid Room [N/A]

5.6.6 Emergency Exit

5.6.6.1 Exit Routes Emergency exit routes shall be established for both INDOOR AQUATIC FACILITIES and outdoor AQUATIC FACILITIES and be maintained so that they are well lit, unobstructed, and accessible at all times. Emergency exits shall be clearly marked in accordance with 4.6.6.

5.6.7 Plumbing

5.6.7.1[A] Water Supply

5.6.7.1.1 Water Pressure All plumbing shall be maintained in good repair with no leaks or discharge.
5.6.7.1.2 Availability Potable water shall be available at all times to PATRONS.
5.6.7.1.3 Cross-Connection Control Water introduced into the POOL, either directly or to the RECIRCULATION SYSTEM, shall be supplied through an air gap or by another method which will prevent BACKFLOW and back-siphonage.

5.6.7.2 Drinking Fountains

5.6.7.2.1 Good Repair Drinking fountains shall be in good repair.
5.6.7.2.2 Clean Drinking fountains shall be clean.
5.6.7.2.3 Catch Basin Drinking fountains shall be adjusted so that water does not go outside the catch basin.
5.6.7.2.4 Contamination Drinking fountains shall provide an angled jet of water and be adjusted so that the water does not fall back into the drinking water stream.
5.6.7.2.5 Water Pressure Drinking fountains shall have sufficient water pressure to allow correct adjustment.

5.6.7.3[A] Wastewater

5.6.7.3.1 Wastewater Disposal AQUATIC VENUE wastewater, including backwash water and cartridge cleaning water, shall be disposed of in accordance with all applicable local, state, territorial, federal, and tribal laws.
5.6.7.3.2 Drainage Wastewater and backwash water shall not be returned to an AQUATIC VENUE or the AQUATIC FACILITY'S water treatment system.

5.6.7.3.3 Drain Line 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.

5.6.7.3.4 No Standing Water Discharge water shall not create any standing water, a nuisance, offensive odors, stagnant wet areas, or an environment for the breeding of insects.

5.6.7.4[A] Water Replenishment

5.6.7.4.1 Volume Removal of water from the POOL and replacement with make-up water shall be performed as needed to maintain water quality.

5.6.7.4.2 Discharged A volume of water totaling at least 4 gallons *(15 L)* per BATHER per day per AQUATIC VENUE shall be either:

1) Discharged from the system, or
2) Treated with an alternate system meeting the requirements of 4.7.4 and reused.

5.6.7.4.2.1 Backwash Water The required volume of water to be discharged may include backwash water.

5.6.7.4.3 Multi-System Facilities In multi-RECIRCULATION SYSTEM facilities, water replenishment shall be proportional to the number of BATHERS in each system.

5.6.8 Solid Waste Management

5.6.8.1 Storage Receptacles

5.6.8.1.1 Good Repair and Clean Outside waste and recycling containers shall be maintained in good repair and clean condition.

5.6.8.1.2 Storage Areas Outside waste and recycling STORAGE areas shall be maintained in good repair and clean condition.

5.6.8.2 Disposal

5.6.8.2.1 Frequency Solid waste and recycled materials shall be removed at a frequency to prevent attracting vectors or causing odor.

5.6.8.2.2 Code Compliance Solid waste and recycled materials shall be disposed of in compliance with all applicable local, state, territorial, federal, and tribal laws.

5.6.9 Decks

5.6.9.1 Food Preparation and Consumption

5.6.9.1.1 Preparation Food preparation and cooking shall only be permitted in designated areas as specified in this CODE.

5.6.9.1.2[A] Eating and Drinking BATHERS shall not eat or drink while in or partially in the AQUATIC VENUE water except in designated areas.

5.6.9.1.2.1 Swim-Up Bars Swim-up bars are not allowed.

5.6.9.2[A] Glass

5.6.9.2.1 Containers Glass food and beverage containers shall be prohibited in PATRON areas of AQUATIC FACILITIES.

5.6.9.2.2 Furniture Glass furniture shall not be used in an AQUATIC FACILITY.

5.6.9.3 Deck Maintenance

5.6.9.3.1[A] Free From Obstructions The PERIMETER DECK shall be maintained free from obstructions, including PATRON seating, to preserve space required for lifesaving and rescue.

5.6.9.3.2 Diaper Changing Diaper changing shall only be done in the HYGIENE FACILITY or at a designated DIAPER- CHANGING STATION.

5.6.9.3.2.1 Prohibited Diaper changing shall be prohibited on the DECK.

5.6.9.3.3[A] Vermin DECK areas shall be cleaned daily and kept free of debris, vermin, and vermin harborage.

5.6.9.3.4[A] Original Design DECK surfaces shall be maintained to their original design slope and integrity.

5.6.9.3.4.1[A] Crack Repair CRACKS in the DECK shall be part of the daily inspection process and be repaired when they change sufficiently to increase the potential for:

1) Trips or falls,
2) Lacerations, or
3) Impacting the ability to properly clean and maintain the DECK area.

5.6.9.3.5 Standing Water DECK areas shall be free from standing water.

5.6.9.3.6 Drains DECK drains shall be cleaned and maintained to prevent blockage and pooling of water.

5.6.9.3.7 Wet Areas Wet areas shall not have absorbent materials that cannot be removed for cleaning and DISINFECTION daily.

5.6.9.3.8 Circulation Path [Deleted]

5.6.10 Aquatic Facility Maintenance

All appurtenances, features, signage, and safety and other equipment and systems required by this CODE shall be provided and maintained.

5.6.10.1[A] Diving Boards and Platforms

5.6.10.1.1 Slip Resistant Finish The finish and profile of surfaces of diving boards and platforms shall be maintained to prevent slips, trips, and falls.

5.6.10.1.2 Loose Bolts and Cracked Boards Diving boards shall be inspected daily for CRACKS and loose bolts with CRACKED boards removed and loose bolts tightened immediately.

5.6.10.2 Steps and Guardrails

5.6.10.2.1 Immovable Steps and guardrails shall be secured so as not to move during use.

5.6.10.2.2 Maintenance The profile and surface of steps shall be maintained to reduce the likelihood of slips and falls.

5.6.10.3[A] Starting Platforms The profile and surface of starting platform steps shall be in good repair to prevent slips, trips, falls, and pinch hazards.

5.6.10.3.1 Starting Platform Use Deterrence Starting platform use by unqualified BATHERS shall be prohibited and prohibition shall be communicated by signage, covers, or other BARRIERS or deterrents.

5.6.10.4 Aquatic Features

5.6.10.4.1 Maintenance AQUATIC FEATURES shall be maintained and operated to manufacturer's/designer's specifications.

5.6.10.4.2 Slime and Biofilm Slime and biofilm layers shall be removed on all accessible AQUATIC FEATURE surfaces.

5.6.10.4.3 Flow Rates AQUATIC FEATURE water flow rates shall be checked to be within designer or manufacturer's specifications prior to opening to the public.

5.6.10.4.4 Disinfectant Where AQUATIC FEATURE plumbing lines are susceptible to holding stagnant water, AQUATIC FEATURE pumps shall be started with sufficient time prior to opening to flush such plumbing lines with treated water.

5.6.10.4.4.1 Water Testing The water shall be tested to verify the disinfectant in the water is within the parameters specified in 5.7.3.1.1.2.

5.6.10.5[A] Fencing, Enclosures, and Barriers

5.6.10.5.1 Maintenance Required fencing, ENCLOSURES, BARRIERS, and gates shall be maintained at all times.

5.6.10.5.2 Tested Daily Gates, locks, and associated alarms, if required, shall be tested daily prior to opening.

5.6.10.6[A] Aquatic Facility Cleaning

5.6.10.6.1 Cleaning The AQUATIC VENUE shall be kept clean of debris, organic materials, and slime/biofilm in accessible areas in the water and on surfaces.

5.6.10.6.2 Vacuuming Vacuuming shall only be done when the AQUATIC VENUE is closed.

5.6.10.6.3 Port Openings Vacuum port openings shall be covered with an approved device cover when not in use.

5.6.10.6.3.1 *Damaged* POOLS with missing or damaged vacuum port openings shall be closed and repairs made before reopening.

5.7 Recirculation and Water Treatment

5.7.1 Recirculation Systems and Equipment

5.7.1.1[A] General

5.7.1.1.1 Continuous Operation All components of the filtration and RECIRCULATION SYSTEMS shall be kept in continuous operation 24 hours per day.

5.7.1.1.1.1 Reduced Flowrates The system flowrate shall not be reduced more than 25% lower than the minimum design requirements and only reduced when the POOL is unoccupied during posted closure hours of the AQUATIC VENUE.

5.7.1.1.1.1.1 System Design The flow turndown system shall be designed as specified in 4.7.1.10.5.1–4.7.1.10.5.2.

5.7.1.1.1.1.2 Water Clarity The system flowrate shall be based on ensuring the minimum water clarity required under 5.7.6 is met before opening to the public.

5.7.1.1.1.2 Disinfectant Concentration The turndown system shall be required to maintain required disinfectant concentration and pH at all times.

5.7.1.1.2 Flow Flow through the various components of a RECIRCULATION SYSTEM shall be balanced according to the provisions outlined in 5.7.1 to maximize the water clarity and SAFETY of a POOL.

5.7.1.1.3[A] Gutter / Skimmer Pools For gutter or SKIMMER POOLS with main drains, the required recirculation flow shall be the total design recirculation flow rate divided as follows during normal operation:

1) At least 80% of the total design recirculation flow rate through the Perimeter Overflow System, and
2) No greater than 20% of the total design recirculation flow rate through the main drain.

5.7.1.2 Combined Venue Treatment Each individual AQUATIC VENUE in a combined treatment system shall meet required TURNOVER TIMES specified in 5.7.1.9 and achieve all water quality criteria *(including, but not limited to, pH, disinfectant concentration, and water clarity/turbidity)*.

5.7.1.3[A] Inlets 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.

5.7.1.4 Surface Skimming Devices

5.7.1.4.1 Perimeter Overflow The Perimeter Overflow System shall be kept clean and free of debris that may restrict flow.

5.7.1.4.2 Automatic Fill System 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.

5.7.1.4.3 Skimmer Water Levels The water levels shall be maintained near the middle of the SKIMMER openings.

5.7.1.4.4 Flow The flow through each SKIMMER shall be adjusted to maintain skimming action that will remove all floating matter from the surface of the water.

5.7.1.4.5 Strainer Baskets The strainer baskets for SKIMMERS shall be cleaned as necessary to maintain proper skimming.

5.7.1.4.6 Weirs Weirs shall remain in place and in working condition at all times.

5.7.1.4.6.1 Broken or Missing Weirs Broken or missing SKIMMER weirs shall be replaced immediately.

5.7.1.5 Submerged Drains/Suction Outlet Covers or Gratings

5.7.1.5.1 Replaced Loose, broken, or missing suction outlet covers and sumps shall be secured or replaced immediately and installed in accordance with the manufacturer's requirements. For replacements, specifications and certificate of compliance shall be submitted to the AHJ.

5.7.1.5.1.1 Closed AQUATIC VENUES shall be closed until the required repairs can be completed.

5.7.1.5.1.2 Close/Open Procedures AQUATIC FACILITIES shall follow procedures for closing and reopening whenever required as outlined in 5.4.1.

5.7.1.5.2 Documentation The manufacturer's documentation on all outlet covers and sumps shall be made part of the permanent records of the AQUATIC FACILITY.

5.7.1.6[A] Piping Piping shall be marked in accordance with 4.9.1.5.1 and 4.9.1.5.2.

5.7.1.7 Strainers & Pumps Strainers shall be in place and cleaned as required to maintain pump performance.

5.7.1.8[A] Flow Meters Flow meters in accordance with 4.7.1.9.1 shall be provided and maintained in proper working order.

5.7.1.9 Flow Rates / Turnovers

5.7.1.9.1 New Construction or Substantially Altered Venues AQUATIC VENUES constructed or substantially altered after the adoption of this CODE shall be operated at the designed flow rate to provide the required TURNOVER RATE 24-hours per day except as allowed in 4.7.1.10.

5.7.1.9.2 Construction Before Adoption of this Code AQUATIC VENUES constructed before the adoption of this CODE shall be operated 24 hours per day at their designed flow rate.

5.7.2 Filtration

5.7.2.1 General

5.7.2.1.1 Certified, Listed, and Labeled Filters and filter media shall be CERTIFIED, LISTED, AND LABELED to NSF/ANSI 50 by an ANSI-accredited certification organization.

5.7.2.1.2 Cleaned Filters shall be backwashed, cleaned, and maintained according to the manufacturer's instructions and in accordance with all applicable local, state, territorial, federal, and tribal laws. Cleaning of cartridge filters on the deck is prohibited.

5.7.2.2 Granular Media Filters

5.7.2.2.1 Filtration Rates High-rate granular media filters shall be operated at no more than 18 GPM per square foot of filter media or that rate approved by the manufacturer for that particular filter, whichever is less. Pools constructed prior to May1, 1986, may continue to use filters sized at 20 GPM per square foot of filter media until replaced.

5.7.2.2.1.1 Less than Fifteen Inch Bed Depth When a bed depth is less than 15 inches *(38.1 cm)*, filters shall operate at no more than 12 GPM per square foot *(29.3 m/h)*. Bed depth shall be measured from the top of the filter media to the top of the openings in the laterals (or underdrain system).

5.7.2.2.2 Backwashing Rates The granular media filter system shall be backwashed at a rate of at least 15 GPM per square foot *(36.7 m/h)* of filter bed surface area unless explicitly prohibited by the filter manufacturer and/or approved at an alternate rate as specified in the NSF/ANSI 50 listing as per 4.7.2.2.3.2.

5.7.2.2.3 Clear Water Backwashing should be continued until the water leaving the filter is clear.

5.7.2.2.4[A] Backwashing Frequency Backwashing of each filter shall be performed at a differential pressure increase over the initial clean filter pressure, as recommended by the filter manufacturer, unless the system can no longer achieve the design flow rate.

5.7.2.2.4.1[A] Backwash Scheduling Backwashes shall be scheduled to take place when the AQUATIC VENUE is closed for BATHER use.

5.7.2.2.4.1.1 Backwashing Without Bathers Present BATHERS shall not be permitted to reenter the AQUATIC VENUE until the RESPONSIBLE SUPERVISOR or QUALIFIED OPERATOR ensures that the recirculation pump and chemical feeders have restarted and run for a minimum of 5 minutes following completion of backwashing.

5.7.2.2.4.1.2 Backwashing With Bathers Present A filter may be backwashed while BATHERS are in the AQUATIC VENUE if all of the following criteria are met:

1) Multiple filters are used;
2) The filter to be backwashed can be isolated from the remaining RECIRCULATION SYSTEM and filters;
3) The recirculation and filtration system still continues to run as per this CODE;
4) The chemical feed lines inject at a point where chemicals enter the RECIRCULATION SYSTEM after the isolated filter and where they can mix as needed; and

5) The filtrate from the newly backwashed filter is diverted to a waste line for a time sufficient to pass one filter volume of water through the filter.

5.7.2.2.5 Filter Media Inspections Sand or other granular media shall be inspected for proper depth and cleanliness at least one time per year, replacing the media when necessary to restore depth or cleanliness.

5.7.2.2.6 Vacuum Sand Filters The manual air release valve of the filter shall be opened as necessary to remove any air that collects inside of the filter as well as following each backwash.

5.7.2.2.7[A] Filtration Enhancing Products Products used to enhance filter performance shall be used according to manufacturers' recommendations.

5.7.2.3 Precoat Filters

5.7.2.3.1 Appropriate The appropriate media type and quantity as recommended by the filter manufacturer shall be used.

5.7.2.3.2[A] Return to the Aquatic Venue Precoating of the filters shall be required in closed loop *(precoat)* mode to minimize the potential for media or debris to be returned to the POOL.

5.7.2.3.3[A] Operation Filter operation shall be per manufacturer's instructions.

5.7.2.3.3.1 Uninterrupted Flow Flow through the filter shall not be interrupted when switching from precoat mode to filtration mode unless the filters are CERTIFIED, LISTED, AND LABELED to NSF/ANSI 50 by an ANSI-accredited certification organization to return water to the POOL during the precoat process.

5.7.2.3.3.1.1 Flow Interruption When a flow interruption occurs on precoat filters not designed to bump, the media shall be backwashed out of the filter and a new precoat established according to the manufacturer's recommendations prior to BATHERS reentering the POOL.

5.7.2.3.3.2 Maximum Precoat Media Load Systems designed to flow to waste while precoating shall use the maximum recommended precoat media load permitted by the filter manufacturer to account for media lost to the waste stream during precoating.

5.7.2.3.4[A] Cleaning Backwashing or cleaning of filters shall be performed at a differential pressure increase over the initial clean filter pressure as recommended by the filter manufacturer unless the system can no longer achieve the design flow rate.

5.7.2.3.5 Continuous Feed Equipment Continuous filter media feed equipment tank agitators shall run continuously.

5.7.2.3.5.1 Batch Application Filter media feed may also be performed via batch application.

5.7.2.3.6[A] Bumping Bumping a precoat filter shall be performed in accordance with the manufacturer's recommendations.

5.7.2.3.7[A] Filter Media

5.7.2.3.7.1[A] Diatomaceous Earth Diatomaceous earth *(DE)*, when used, shall be added to precoat filters in the amount recommended by the filter manufacturer.

5.7.2.3.7.2 Perlite Perlite, when used, shall be added to precoat filters in the amount recommended by the filter manufacturer and in accordance with the specifications for the filter listing and labeling to NSF/ANSI 50 by an ANSI-accredited certification organization.

5.7.2.4 Cartridge Filters

5.7.2.4.1[A] Approved Cartridge filters shall be operated in accordance with the filter manufacturer's recommendation and be CERTIFIED, LISTED, AND LABELED to NSF/ANSI 50 by an ANSI-accredited certification organization.

5.7.2.4.2[A] Filtration Rates The maximum operating filtration rate for any surface-type cartridge filter shall not:

1) Exceed the lesser of either the manufacturer's recommended filtration rate or 0.375 GPM per square foot *(0.26 L/s/m2)* or
2) Drop below the design flow rate required to achieve the TURNOVER RATE for the AQUATIC VENUE.

5.7.2.4.3[A] Filter Elements Active filter cartridges shall be exchanged with clean filter cartridges at a differential pressure increase over the initial clean filter pressure as recommended by the filter manufacturer unless the system can no longer achieve the design flow rate.

5.7.2.4.3.1[A] Cleaning Procedure The filter housing and filter cartridge shall be cleaned per manufacturer's recommendation and comply with applicable local, state, territorial, federal, and tribal laws. Cleaning of cartridge filters on the deck is prohibited.

5.7.2.4.3.1.1 No Manufacturer Procedure If there is no established manufacturer cleaning procedure, then filters shall be cleaned per 5.7.2.4.3.2 and 5.7.2.4.3.3.

5.7.2.4.3.2 Filter Housing Cleaning The following procedures shall be implemented to clean the filter housing when no manufacturer instructions are established:

1) Drain filter housing to waste;
2) Remove the filter cartridges from the housing;
3) Clean the inside of the filter housing with a brush and mild detergent to remove biofilms and algae;
4) Rinse thoroughly; and
5) Mist the filter housing walls with CHLORINE bleach at a 1:10 dilution.

5.7.2.4.3.3 Filter Cartridge Cleaning The following procedures shall be implemented to clean the filter cartridge when no manufacturer instructions are established.

5.7.2.4.3.3.1 Rinse Thoroughly The cartridge shall be rinsed thoroughly with a spray nozzle.

5.7.2.4.3.3.2[A] Pressure Washer A pressure washer shall not be used to clean cartridge filters.

5.7.2.4.3.3.3 Degrease Cartridge filters shall be degreased each time they are cleaned per the procedures outlined in this section.

5.7.2.4.3.3.4 Soak The cartridge shall be soaked overnight in one of the following solutions:

1) A cartridge filter cleaner/degreaser per instructions on product label,
2) A solution of water with 1 cup (*240 mL*) of tri-sodium phosphate *(TSP)* per 5 gallons *(18.9 L)* of water, or
3) One cup *(240 mL)* of automatic dishwashing detergent per 5 gallons *(18.9 L)* of water.

5.7.2.4.3.3.5 Acid Muriatic acid or products with acid in them shall never be used prior to degreasing.

5.7.2.4.3.3.6 Rinse The filter cartridge shall be removed from the degreaser solution and rinsed thoroughly.

5.7.2.4.3.3.7 Sanitize The filter cartridge shall be SANITIZED by soaking for 1 hour in a bleach solution made by mixing 1 quart (*950 mL*) of household bleach per 5 gallons *(18.9 L)* of water.

5.7.2.4.3.3.8 Rinse After soaking for 1 hour, the SANITIZED filter cartridge shall be removed and rinsed thoroughly.

5.7.3[A] Water Treatment Chemicals and Systems

Treatment chemicals shall be CERTIFIED, LISTED, AND LABELED to either NSF/ANSI 50 or NSF/ANSI 60 by an ANSI-accredited certification organization, and/or have an EPA FIFRA registration and be used only in accordance with the manufacturer's instructions.

5.7.3.1 Primary Disinfectants Only the primary disinfectants outlined in 5.7.3 shall be acceptable for use in AQUATIC VENUES.

5.7.3.1.1[A] Chlorine (Hypochlorites)

5.7.3.1.1.1 EPA Registered Only CHLORINE products that are EPA REGISTERED for use as SANITIZERS or disinfectants in AQUATIC VENUES or SPAS in the United States shall be permitted.

5.7.3.1.1.2[A] Minimum DPD-FC Concentrations Minimum DPD-FC concentrations shall be maintained at all times in all areas as follows in 5.7.3.1.1.2.1 to 5.7.3.1.1.2.3.

5.7.3.1.1.2.1 Not Using Cyanuric Acid AQUATIC VENUES ***not*** using CYA shall maintain a minimum DPD-FC concentration of 1.0 ppm *(mg/L)*.

5.7.3.1.1.2.2 Using Cyanuric Acid AQUATIC VENUES using CYA shall maintain a minimum DPD-FC concentration of 2.0 ppm *(mg/L)*.

5.7.3.1.1.2.3 Spas SPAS shall maintain a minimum DPD-FC concentration of 3.0 ppm *(mg/L)*.

5.7.3.1.1.3 Stagnant Water Lines [Deleted]

5.7.3.1.1.4 Consistent with Label Instructions DPD-FC concentrations shall be consistent with label instructions.

5.7.3.1.1.5[A] Maximum DPD-FC Concentrations Maximum DPD-FC concentrations shall not exceed 10.0 ppm *(mg/L)* at any time the AQUATIC VENUE is open to BATHERS.

5.7.3.1.2 Bromine

5.7.3.1.2.1[A] EPA Registered Only bromine products that are EPA REGISTERED for use as SANITIZERS o in AQUATIC VENUES or SPAS in the United States shall be permitted.

5.7.3.1.2.1.1 Disinfectants Bromine-based disinfectants may be applied to AQUATIC VENUES and SPAS through the addition of an organic bromine compound (1,3-Dibromo-5,5- dimethylhydantoin (DBDMH) or 1-bromo-3-chloro-5,5-dimethylhydantoin (BCDMH)).

5.7.3.1.2.2[A] Minimum Bromine Concentrations Minimum bromine concentrations shall be maintained at all times in all areas as follows:

1) All AQUATIC VENUES: 3.0 ppm *(mg/L),* and
2) SPAS: 4.00 ppm *(mg/L)*.

5.7.3.1.2.3[A] Maximum Bromine Concentrations The maximum bromine concentration shall not exceed 8.0 ppm *(mg/L)* at any time the AQUATIC VENUE is open to BATHERS.

5.7.3.1.3 Stabilizers CYA or stabilized CHLORINE products shall be CERTIFIED, LISTED, AND LABELED to either NSF/ANSI 50 or NSF/ANSI 60 by an ANSI-accredited certification organization, and/or have an EPA FIFRA registration.

5.7.3.1.3.1[A] Cyanuric Acid CYA or stabilized CHLORINE products shall ***not*** be used in indoor AQUATIC VENUES for all new construction, SUBSTANTIAL ALTERATIONS, or DISINFECTION equipment replacements at the following:

1) SPAS and
2) Indoor pools.

5.7.3.1.3.1.1 Replacement Times These AQUATIC VENUES shall no longer use CYA or stabilized CHLORINE products no later than 4 years after adoption of this CODE.

5.7.3.1.3.2 Aquatic Venues The CYA level at all AQUATIC VENUES shall remain at or below 90 ppm *(mg/L)*.

5.7.3.1.4 [A] Compressed Chlorine Gas As per 4.7.3.2.4.1, use of compressed CHLORINE gas shall be prohibited for new construction and after SUBSTANTIAL ALTERATION to existing AQUATIC FACILITIES.

5.7.3.1.4.1 Safety Requirements Facilities using compressed CHLORINE gas shall provide SAFETY precautions per the following subsections.

5.7.3.1.4.1.1 Separate Enclosure 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.

5.7.3.1.4.1.1.1 Door The chlorinators and any cylinders containing CHLORINE gas used therewith shall be housed in an ENCLOSURE with a door so installed as to prevent gas leakage and equipped with an inspection window.

5.7.3.1.4.1.2 Secured CHLORINE cylinders shall be secured from falling.

5.7.3.1.4.1.3 Cylinders in Use Cylinders in use shall be secured on a suitable platform scale.

5.7.3.1.4.1.4 Vent to Exterior A separate vent opening to the exterior shall be provided.

5.7.3.1.4.1.5 Fan An electric motor-driven fan shall take suction from near the floor level of the ENCLOSURE and discharge at a suitable point to the exterior above the ground level.

5.7.3.1.4.1.5.1 Fan Switch The fan switch shall be able to be operated from outside of the ENCLOSURE.

5.7.3.1.4.1.6 Trained Operator Any person who operates such chlorinating equipment shall be trained in its use.

5.7.3.1.4.1.7 Stop Use Facilities shall stop the use of CHLORINE gas if specific safety equipment and training requirements, along with all applicable local, state, territorial, federal, and tribal laws, cannot be met.

5.7.3.1.5[A] Salt Electrolytic Chlorine Generators, Brine Electrolytic Chlorine or Bromine Generators

5.7.3.1.5.1 Pool Grade Salt Only POOL grade salt that has been CERTIFIED, LISTED, AND LABELED to either NSF/ANSI 50 or NSF/ANSI 60 by an ANSI-accredited certification organization, and/or have an EPA FIFRA registration shall be used.

5.7.3.1.5.2 Maintained The saline content of the POOL water shall be maintained in the required range specified by the manufacturer.

5.7.3.1.5.3 Cleaning Cleaning of electrolytic plates shall be performed as recommended by the manufacturer.

5.7.3.1.5.4 Corrosion Protection Corrosion protection systems shall be maintained in the POOL basin.

5.7.3.2[A] Secondary or Supplemental Treatment Systems

5.7.3.2.1 Ultraviolet Light

5.7.3.2.1.1 Operate with Recirculation System UV systems shall only operate while the RECIRCULATION SYSTEM is operating.

5.7.3.2.1.1.1 Response to Interruption in Operation Any interruptions in UV system operations that are triggered by an interlock per 4.7.3.2.5.6.2 shall be evaluated as possible evidence for low flow state of the AQUATIC VENUE pumps, prompting BATHER evacuation according to 5.7.3.5.1.2.1 and BATHER reentry according to 5.7.3.5.1.2.2.

5.7.3.2.1.2[A] Log Inactivation Secondary 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.

5.7.3.2.1.3 Free Available Chlorine and Bromine Levels Use of UV does not modify any other water quality requirements.

5.7.3.2.1.4[A] Calibrated Sensors UV sensors shall be calibrated at a frequency in accordance with manufacturer recommendations.

5.7.3.2.1.5 Records Records of calibration shall be maintained by the facility.

5.7.3.2.2 Ozone

5.7.3.2.2.1 Log Inactivation Ozone systems shall be operated and maintained according to the manufacturer's instructions to maintain the required design performance.

5.7.3.2.2.2 Residual Ozone Concentration Residual ozone concentration in the AQUATIC VENUE water shall remain below 0.1 ppm *(mg/L)*.

5.7.3.2.2.3 Free Available Chlorine and Bromine Levels Use of ozone does not modify any other water quality requirements.

5.7.3.2.2.4 Standard Operating Manual 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.

5.7.3.2.2.5 Employees Trained All employees shall be properly trained in the operation and maintenance of the equipment.

5.7.3.2.2.6 Response to Interruption in Operation Any interruptions in ozone system operations that are triggered by an interlock per 4.7.3.2.5.6.2 shall be evaluated as possible evidence for low flow state of the AQUATIC VENUE pumps, prompting BATHER evacuation according to 5.7.3.5.1.2.1 and BATHER reentry according to 5.7.3.5.1.2.2.

5.7.3.2.3[A] Copper / Silver Ions

5.7.3.2.3.1 EPA Registered Only those systems that are EPA REGISTERED for use as SANITIZERS or disinfectants in AQUATIC VENUES or SPAS in the United States are permitted.

5.7.3.2.3.2 Concentrations Copper and silver concentrations shall not exceed 1.3 ppm *(mg/L)* for copper and 0.10 ppm *(mg/L)* for silver for use as disinfectants in AQUATIC VENUES and SPAS in the United States.

5.7.3.2.3.3 DPD-FC and Bromine Concentration Levels DPD-FC or bromine concentrations shall be maintained in accordance with 5.7.3.1.1 or 5.7.3.1.2, respectively.

5.7.3.3[A] Other Sanitizers, Disinfectants, or Chemicals Other SANITIZERS, disinfectants, or chemicals used shall:

1) Be EPA REGISTERED under FIFRA if they are pesticides as defined by EPA,
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 this CODE.

5.7.3.3.1[A] Chlorine Dioxide CHLORINE dioxide shall only be used for remediation for water quality issues when the AQUATIC VENUE is closed and BATHERS are not present.

5.7.3.3.1.1 Safety Considerations SAFETY training and SAFETY precautions related to use of CHLORINE dioxide shall be in place.

5.7.3.3.2[A] Clarifiers, Flocculants, Defoamers Clarifiers, flocculants, and defoamers shall be used per manufacturer's instructions.

5.7.3.3.2.1 Certified, Listed, and Labeled Clarifiers, flocculants, and defoamers shall be CERTIFIED, LISTED, AND LABELED to either NSF/ANSI 50 or NSF/ANSI 60 by an ANSI-accredited certification organization, and/or have an EPA FIFRA registration.

5.7.3.4[A] pH

5.7.3.4.1 pH Range The pH of the water shall be maintained at 7.0 - 7.8.

5.7.3.4.2 Approved Substances 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.

5.7.3.4.2.1 Certified, Listed, and Labeled Chemicals used for pH adjustment shall be CERTIFIED, LISTED, AND LABELED to either NSF/ANSI 50 or NSF/ANSI 60 by an ANSI-accredited certification organization, and/or have an EPA FIFRA registration.

5.7.3.5[A] Feed Equipment

5.7.3.5.1 Acceptable Chemical Delivery Acceptable disinfectant and pH control chemicals shall be delivered through an automatic chemical feed system upon adoption of this CODE.

5.7.3.5.1.1 Dedicated and Labeled Components All chemical feed system components shall be dedicated to a single chemical and clearly labeled to prevent the introduction of incompatible chemicals.

5.7.3.5.1.2[A] Installed and Interlocked For all new or SUBSTANTIALLY ALTERED AQUATIC VENUES, chemical feed system components shall be installed and interlocked so the chemical feeder cannot operate when the RECIRCULATION SYSTEM is in low or no flow circumstances as per 4.7.3.2.1.3.

5.7.3.5.1.2.1 Response to Alarm and Bather Evacuation When the interlock is activated stopping flow from chemical feeders per 4.7.3.2.1.3 and 5.7.3.5.1.3, or the water recirculation pump is stopped manually or unexpectedly for any reason and duration, including power outages, all BATHERS shall be evacuated from the AQUATIC VENUE until manual evaluation of the cause for interlock activation or recirculation pump interruption is completed by the RESPONSIBLE SUPERVISOR or QUALIFIED OPERATOR.

5.7.3.5.1.2.2[A] Bather Reentry BATHERS shall not be permitted to reenter the AQUATIC VENUE until the RESPONSIBLE SUPERVISOR or QUALIFIED OPERATOR has successfully understood the cause of the interlock activation and/or recirculation pump interruption and has manually overridden the interlock for restart of the recirculation pump and chemical feeder, and UV or ozone system, if applicable, for 5minutes following the restart of these systems.

5.7.3.5.1.3 Fail Proof Safety Features 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.

5.7.3.5.1.4 Maintained All chemical feed equipment shall be maintained in good working condition.

5.7.3.5.1.4.1 Challenge Testing The system and its components shall be tested on a regular basis to confirm that all SAFETY features are functioning correctly.

5.7.3.5.1.4.1.1 Once Monthly or Specified by Manufacturer Unless specified otherwise by the device manufacturer, once monthly challenge testing of the chemical feeder interlock system shall be conducted by turning off recirculation pump flow to the chemical feeder and ensuring triggered shutoff of chemical feeder occurs via electrical interlock with flow meter/flow switch, paddle wheel, or other device being used to assess flow to chemical feeder.

5.7.3.5.1.4.1.2 Following Confirmation Following confirmation of triggered shutoff, recirculation flow shall immediately be restarted.

5.7.3.5.1.5 Insufficient Size/Capacity If it is determined that the chemical feed system is incapable of maintaining the minimum required disinfectant level at all times in accordance with these rules, additional capacity shall be designed and installed per4.7.3.2.2.

5.7.3.5.2 Chemical Feeders Chemical feeders shall be installed such that they are not over chemical storage containers, other feeders, or electrical equipment.

5.7.3.5.3 Dry Chemical Feeders Chemicals shall be kept dry to avoid clumping and potential feeder plugging for mechanical gate or rotating screw feeders.

5.7.3.5.3.1 Cleaned and Lubricated The feeder mechanism shall be cleaned and lubricated to maintain a reliable feed system.

5.7.3.5.4 Venturi Inlet Adequate pressure shall be maintained at the venturi INLET to create the vacuum needed to draw the chemical into the RECIRCULATION SYSTEM.
5.7.3.5.5 Erosion Feeders Erosion feeders shall only have chemicals added that are approved by the manufacturer.
5.7.3.5.5.1 Opened A feeder shall only be opened after the internal pressure is relieved by a bleed valve.
5.7.3.5.5.2 Maintained Erosion feeders shall be maintained according to the manufacturer's instructions.
5.7.3.5.6 Liquid Solution Feeders For liquid solution feeders, spare feeder tubes *(or tubing)* shall be maintained onsite for peristaltic pumps.
5.7.3.5.7 Checked Daily All chemical tubing, connections, support, and double containment piping shall be checked on a daily basis for leaks.
5.7.3.5.7.1 Routed All chemical tubing that runs through areas where staff work shall be routed in PVC piping to support the tubing and to prevent leaks.
5.7.3.5.7.1.1 Size The double containment PVC pipe shall be of sufficient size to allow for easy replacement of tubing.
5.7.3.5.7.1.2 Turns Any necessary turns in the piping shall be designed so as to prevent kinking of the tubing.
5.7.3.5.8 Gas Feed Systems The Chlorine Institute Pamphlet 82 requirements for safe STORAGE and use of CHLORINE gas shall be followed.
5.7.3.5.9 Carbon Dioxide Carbon dioxide feed shall be permitted to reduce pH.
5.7.3.5.9.1 Controlled Carbon dioxide feed shall be controlled using a gas regulator.
5.7.3.5.9.2 Alarm Monitor CO_2/O_2 monitor and alarm shall be maintained in working condition.
5.7.3.5.9.3 Forced Ventilation Carbon dioxide is heavier than air, so forced ventilation shall be maintained in the STORAGE room.
5.7.3.6 Testing for Water Circulation and Quality
5.7.3.6.1 Water Quality Testing Devices Available WQTDs for the measurement of disinfectant residual, pH, alkalinity, CYA *(if used)*, and temperature, at a minimum, shall be available onsite.
5.7.3.6.1.1 Expiration Dates WQTDs utilizing reagents shall be checked for expiration at every use and the date recorded.
5.7.3.6.2 Store WQTDs shall be stored in accordance with manufacturer's instructions.
5.7.3.6.3 Temperature Chemical testing reagents shall be maintained at proper manufacturer specified temperatures.
5.7.3.6.4 Calibration WQTDs that require calibration shall be calibrated in accordance with manufacturer's instructions and the date of calibration recorded.
5.7.3.7 Automated Controllers and Equipment Monitoring
5.7.3.7.1 Use of Controller An AUTOMATED CONTROLLER capable of measuring the disinfectant residual *(DPD-FC or bromine)* or surrogate such as ORP shall be used to maintain the disinfectant residual in AQUATIC VENUES as outlined in 4.7.3.2.8.
5.7.3.7.1.1 Installed An AUTOMATED CONTROLLER shall be required or all newly constructed AQUATIC VENUES or at the time of a SUBSTANTIAL ALTERATION of the disinfection system.
5.7.3.7.1.2 Interlocked AUTOMATED CONTROLLERS shall be interlocked per 4.7.3.2.1.3.
5.7.3.7.2 Sampling The sample line for all probes shall be upstream from all primary, SECONDARY and SUPPLEMENTAL TREATMENT injection ports or devices.
5.7.3.7.3 Monitor AUTOMATED CONTROLLERS shall be MONITORED in person by visual observation at the start of the operating day to ensure proper functioning.
5.7.3.7.4 Activities MONITORING shall include activities recommended by manufacturers, including but not limited to alerts and leaks.
5.7.3.7.5 Replacement Parts Only manufacturer-approved OEM replacement parts shall be used.
5.7.3.7.6 Calibration AUTOMATED CONTROLLERS shall be calibrated per manufacturer directions.
5.7.3.7.7[A] Ozone System When an ozone system is utilized as a SECONDARY TREATMENT, the system shall be MONITORED and data recorded at a frequency consistent with Table 5.7.3.7.7.

Table 5.7.3.7.7: Ozone System Monitoring Frequency

Parameter	Monitoring Frequency	Recording Frequency
ORP	Continuous	Every 4 hours
Control System Indicating Ozone Being Created	Continuous	Every 4 Hours
Operational Indicators in Range	Continuous	Every 4 hours
Ozone Within 6 inches of Aquatic Venue Water Surface	Annual	Annual

5.7.3.7.7.1 Other Testing At the time the ozone generating equipment is installed, again after 24 hours of operation, and annually thereafter, the air space within 6 inches of the AQUATIC VENUE water shall be tested to determine compliance of less than 0.1 ppm *(mg/L)* gaseous ozone.
5.7.3.7.7.1.1 Results Results of the test shall be maintained onsite for review by the AHJ.
5.7.3.7.8[A] UV Systems When a UV system is utilized as a SECONDARY TREATMENT, the system shall be MONITORED and data recorded at a frequency consistent with Table 5.7.3.7.8.

Table 5.7.3.7.8: UV System Monitoring and Calibration Frequency

Parameter	Monitoring Frequency	Recording Frequency
Flow Rate Monitoring	Continuous	Every 4 Hours
Intensity Monitoring	Continuous	Every 4 Hours
Water Temperature Monitoring *(Medium Pressure)*	Continuous	Daily
Set Point for Intensity Monitoring	Continuous	Daily
UV Lamp On/Off Cycle Monitoring	Continuous	Weekly *(Total Cycles/Week)*
Iron, Calcium Hardness Monitoring	Weekly *(If Fouling is Prevalent)*	Weekly
Calibration of UVT Analyzer *(if used)*	Per Manufacturer's Requirements	At Time of Calibration
Calibration of Intensity	Per Manufacturer's Requirements	At Time of Calibration
Calibration of Flow Meter	Per Manufacturer's Requirements	At Time of Calibration

5.7.3.7.9 UV Alarm Testing and Maintenance The automated UV shut-down alarm required in 4.7.3.3.3.6 shall be tested weekly and maintained as needed.

5.7.4 Water Sample Collection and Testing

5.7.4.1 Sample Collection The QUALIFIED OPERATOR shall ensure a water sample is acquired for testing from the in-line sample port when available as per 5.7.5.
5.7.4.1.1 Same Volume If an AQUATIC VENUE has more than one RECIRCULATION SYSTEM, the same sample volume shall be collected from each in-line sample port and tested separately.
5.7.4.1.2 No Port If no in-line sample port is available, the QUALIFIED OPERATOR shall ensure water samples from the AQUATIC VENUE are acquired according to 5.7.4.3.
5.7.4.2 Routine Samples If 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.
5.7.4.2.1 Midday Collection Daily bulk water samples shall be collected in the middle of the AQUATIC VENUE operational day, according to the procedures in 5.7.4.3.

5.7.4.2.2 Compared 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.

5.7.4.3[A] Bulk Water Sample The QUALIFIED OPERATOR shall ensure the following procedure is used for acquiring a water sample from bulk water of the POOL.

5.7.4.3.1 Obtain Sample All samples shall be obtained from a location with the following qualities:

1) At least 18 inches *(45.7 cm)* below the surface of the water,
2) A water depth of 3–4 feet *(91.4 cm to 1.2 m)* when available, and
3) A location between water INLETS.

5.7.4.3.2 Rotate Sampling locations shall rotate around the shallow end of the POOL.

5.7.4.3.3 Deepest Area The QUALIFIED OPERATOR shall ensure a sample includes a deep end sample from the AQUATIC VENUE in the water sampling rotation once per week.

5.7.4.4[A] Aquatic Venue Water Chemical Balance

5.7.4.4.1[A] Total Alkalinity Total alkalinity shall be maintained in the range of 60 to 180 ppm *(mg/L)*.

5.7.4.4.2[A] Combined Chlorine (Chloramines) The owner shall ensure the AQUATIC FACILITY takes action to reduce the level of COMBINED CHLORINE (chloramines) in the water when the level exceeds 0.4 ppm *(mg/L)*. Such actions may include but are not limited to:

1) Superchlorination,
2) Water exchange, or
3) PATRON adherence to appropriate BATHER hygiene practices.

5.7.4.4.3[A] Calcium Hardness Calcium hardness shall not exceed 2500 ppm *(mg/L)*.

5.7.4.4.4[A] Algaecides 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 EPA and applicable state agency.

5.7.4.5[A] Source (Fill) Water The owner of a public AQUATIC VENUE, public SPA, or SPECIAL USE AQUATIC VENUE shall ensure that the water supply for the facility meets one of the following requirements:

1) The water comes from a PUBLIC WATER SYSTEM as defined by the applicable rules of the AHJ in which the facility is located;
2) The water meets the requirements of the AHJ for PUBLIC WATER SYSTEMS; or
3) The AHJ has approved an alternative water source for use in the AQUATIC FACILITY.

5.7.4.6[A] Water Balance for Aquatic Venues AQUATIC VENUE water shall be chemically balanced.

5.7.4.7[A] Water Temperature

5.7.4.7.1 Minimize Risk and Protect Safety Water temperatures shall be considered and planned for based on risk, SAFETY, priority facility usage, and age of participants, while managing water quality concerns.

5.7.4.7.2[A] Maximum Temperature The maximum temperature for an AQUATIC VENUE is 104º F *(40°C)*.

5.7.5[A] Water Quality Chemical Testing Frequency

5.7.5.1[A] Chemical Parameters DPD-FC, COMBINED AVAILABLE CHLORINE (CAC), or TOTAL BROMINE *(TB)*, and pH shall be tested and recorded at all AQUATIC VENUES prior to opening each day.

5.7.5.2 Manual Disinfectant Feed System For all AQUATIC VENUES using a manual disinfectant feed system that delivers disinfectant via a flow through erosion feeder or metering pump without an AUTOMATED CONTROLLER, DPD-FC or bromine and pH shall be tested prior to opening to the public and every 4 hours while open to the public or every hour if the pool is outdoors and cyanuric acid is not used.

5.7.5.3 Automatic Disinfectant Feed System For all AQUATIC VENUES using an automated disinfectant feed system, DPD-FC (or TB) and pH shall be tested and recorded prior to opening and every 4 hours while open to the public.

5.7.5.4 In-Line ORP Readings In-line ORP readings, if such systems are installed, shall be recorded at the same time the DPD-FC (or TB) and pH tests are performed.

5.7.5.5 Total Alkalinity Total Alkalinity *(TA)* shall be tested weekly and recorded at all AQUATIC VENUES.

5.7.5.6 Calcium Hardness Calcium hardness shall be tested monthly and recorded at all AQUATIC VENUES.
5.7.5.7 Cyanuric Acid CYA shall be tested monthly and recorded at all AQUATIC VENUES utilizing CYA.
5.7.5.7.1 Tested CYA shall be tested 24 hours after the addition of CYA to the AQUATIC VENUE and recorded.
5.7.5.7.2 Stabilized Chlorine If AQUATIC VENUES utilize stabilized CHLORINE as its primary disinfectant, the operator shall measure CYA concentrations weekly or more frequently as necessary to ensure compliance with 5.7.3.
5.7.5.8 Saturation Index The SATURATION INDEX shall be checked monthly.
5.7.5.9 Total Dissolved Solids TDS shall be tested quarterly at all AQUATIC VENUES.
5.7.5.10 Water Temperature For heated AQUATIC VENUES, water temperature shall be recorded at the same time the DPD-FC (or TB*)* and pH tests are performed.
5.7.5.11 Salt If in-line electrolytic chlorinators are used, salt levels shall be tested at least weekly or per manufacturer's instructions.
5.7.5.12 Copper/Silver Systems Copper and silver shall be tested daily at all AQUATIC VENUES utilizing copper/silver systems as a SUPPLEMENTAL TREATMENT system.

5.7.6[A] Water Clarity
5.7.6.1 Water Clarity The water in an AQUATIC VENUE shall be sufficiently clear such that the bottom is visible while the water is static at all times the AQUATIC VENUE is open or available for use.
5.7.6.1.1 Reference Tile The reference tile required in 4.5.1.2.1 through 4.5.1.2.4 shall be used to observe water clarity.
5.7.6.1.2 No Reference Tile In the absence of a reference tile or suction outlet, an alternate means of achieving the goal of observing the bottom of the pool may be permitted.
5.7.6.2 Visible This reference point shall be visible at all times at any point on the DECK up to 30 feet *(9.1 m)* away in a direct line of sight from the tile or main drain.
5.7.6.2.1 Spas For SPAS, this test shall be performed when the water is in a non-turbulent state and bubbles have been allowed to dissipate.

5.8 Decks and Equipment
5.8.1[A] Deck Areas
5.8.1.1 Cross-Connection Control
5.8.1.1.1 Deck Drains BACKFLOW prevention devices shall be in good working order and shall be tested as required by the AHJ.
5.8.1.2 Materials / Slip Resistant
5.8.1.2.1 Clean and Good Repair Surfaces shall be clean and in good repair.
5.8.1.2.2 Risk Management The finish and profile of DECK surfaces shall be maintained to prevent slips and falls.
5.8.1.2.3[A] Tripping Hazards Tripping hazards shall be avoided.
5.8.1.2.3.1 Protect If tripping hazards are present, they shall be repaired or promptly barricaded to protect PATRONS/employees.
5.8.1.3 Deck Size/Width The PERIMETER DECK shall be maintained clear of obstructions for at least a 4 foot *(1.2 m)* width around the entire POOL unless otherwise allowed by this CODE.

5.8.2 Diving Boards and Platforms [N/A]

5.8.3[A] Starting Platforms
5.8.3.1 Competitive Training and Competition Starting platforms shall only be used for competitive swimming and training.

5.8.3.1.1 Supervision Starting platforms shall only be used under the direct supervision of a coach or instructor.
5.8.3.1.2 Removed or Restricted 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.

5.8.4 Pool Slides [N/A]

5.8.5 Lifeguard- and Safety-Related Equipment

5.8.5.1[A] Equipment Inspection and Maintenance AQUATIC FACILITIES shall not be open to users unless the equipment listed under 5.8.5 is present and in a safe and working condition.

5.8.5.2 Safety Equipment Required at All Aquatic Facilities

5.8.5.2.1 Emergency Communication Equipment

5.8.5.2.1.1[A] Functioning Communication Equipment The AQUATIC FACILITY shall have equipment for staff to communicate in cases of emergency.

5.8.5.2.1.2 [A] Hard-Wired Telephone for 911 Call 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.

5.8.5.2.1.3 Conspicuous and Easily Accessible The telephone or communication system or device shall be conspicuously provided and accessible to AQUATIC VENUE users such that it can be reached immediately.

5.8.5.2.1.4 [A] Alternate Communication Systems Alternate functional systems, devices, or communication processes are allowed with AHJ approval in situations when a hardwired telephone is not logistically sound, and an alternate means of communication is available. AQUATIC FACILITIES using mobile devices as alternate communication systems must:

1) Ensure the mobile device is plugged into a charger at the end of each day or whenever it is not in use to guarantee full battery.
2) Use alerts or check the battery percentage regularly to ensure the mobile device is always at least 80% charged.
3) Conduct a weekly test to make sure the mobile device works properly, both for calls and signal reception.
4) Check the mobile device's signal reception regularly to ensure it has adequate coverage in the pool area. In case of poor reception, consider using a signal booster or alternative communication methods.
5) Have a backup plan in case the mobile device has no signal, such as a secondary landline or a two-way radio.
6) Assign responsibility to a specific person to verify the mobile device's readiness at the beginning and end of each shift.
7) Maintain a written checklist for staff to verify the mobile device's readiness at the beginning and end of each shift.

5.8.5.2.2 First Aid Equipment

5.8.5.2.2.1[A] Location for First Aid GENERAL USE AQUATIC FACILITIES shall have designated locations for emergency and first aid equipment.

5.8.5.2.2.2 [A] First Aid Supplies An adequate supply of first aid supplies shall be continuously stocked and include, at a minimum, as follows:

1) A first aid guide,
2) Absorbent compress,
3) Adhesive bandages,
4) Adhesive tape,
5) Sterile pads,
6) Disposable gloves,
7) Scissors,
8) Sterile rolled gauze bandage,

9) Emergency blanket,
10) Resuscitation mask with one-way valve, and
11) Blood-borne pathogen spill kit.

5.8.5.2.2.3 Automatic External Defibrillators (AED) All general-use pools, and pools at health clubs serving 100 patrons or more a day, must provide an AED on-site and accessible for use.

1) The AED must be maintained, inspected and serviced, including the battery and electrodes according to the guidelines set forth by the manufacturer.
2) There must be a sufficient number of employees, including all lifeguards, trained in the use of the AED so that there is one on-site whenever the pool is open.
3) The AED must be stored in a location from which the AED is accessible and can be quickly retrieved. 4) Signage must be provided that indicates the location of the AED.
5) A policy must be developed for the use of the AED, including the need to contact 911 as soon as possible after identifying the incident. This policy should be made available to facility staff and must be posted with the AED.

5.8.5.2.3 Signage

5.8.5.2.3.1 [A] Sign Indicating First Aid Location 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.

5.8.5.2.3.2[A] Emergency Dialing Instructions A permanent sign providing emergency dialing directions and the AQUATIC FACILITY address shall be posted and maintained at the emergency telephone, system, or device.

5.8.5.2.3.3[A] Management Contact Info At LIMITED USE AQUATIC FACILITIES, a permanent sign shall be conspicuously posted and maintained displaying contact information for emergency personnel and AQUATIC FACILITY management.

5.8.5.2.3.4[A] Hours of Operation A sign shall be posted stating the following:

1) The operating hours of the AQUATIC FACILITY and
2) Unauthorized use of the AQUATIC FACILITY outside of these hours is prohibited.

5.8.5.3 Safety Equipment Required at Facilities with Lifeguards

5.8.5.3.1[A] UV Protection for Chairs and Stands Lifeguards and lifeguard positions must be provided protection from UV radiation exposure.

5.8.5.3.2[A] Backboard At least one backboard constructed of material easily SANITIZED/disinfected shall be provided.

5.8.5.3.2.1 Backboard Number and Location The number and location of backboards shall be sufficient to affect a 2-minute response time to the location of the incident.

5.8.5.3.2.2 Backboard Components The backboard shall be equipped with a head immobilizer and sufficient straps to immobilize a person to the backboard.

5.8.5.3.3[A] Rescue Tube Immediately Available Each QUALIFIED LIFEGUARD conducting PATRON surveillance with the responsibility of in-water rescue in less than 3 feet *(0.9 m)* of water shall have a rescue tube immediately available for use.

5.8.5.3.4[A] Rescue Tube on Person Each QUALIFIED LIFEGUARD conducting PATRON surveillance in a water depth of 3 feet *(0.9 m)* or greater shall have a rescue tube on his/her person in a rescue ready position.

5.8.5.3.5[A] Identifying Uniform QUALIFIED LIFEGUARDS shall wear attire that readily identifies them as members of the AQUATIC FACILITY'S lifeguard staff.

5.8.5.3.6[A] Signal Device A whistle or other signaling device shall be worn by each QUALIFIED LIFEGUARD conducting PATRON surveillance for communicating to users and/or staff.

5.8.5.3.7[A] Sun Blocking Methods All AQUATIC FACILITIES where QUALIFIED LIFEGUARDS can be exposed to UV radiation shall train lifeguards about the use of protective clothing, hats, sun-blocking umbrellas, and sunscreen application and re-application using or exceeding SPF Level 15 to protect exposed skin areas.

5.8.5.3.7.1 Lifeguards Responsible QUALIFIED LIFEGUARDS are responsible for protecting themselves from UV radiation exposure and wearing appropriate sunglasses and sunscreen.
5.8.5.3.8[A] Polarized Sunglasses When glare impacts the ability to see below the water's surface, QUALIFIED LIFEGUARDS are recommended to wear polarized sunglasses while conducting BATHER surveillance.
5.8.5.3.9[A] Personal Protective Equipment Personal protective devices including a resuscitation mask with one-way valve and non-latex, non-powdered, one-use disposable gloves shall be worn in the form of a hip pack or attached to the rescue tube of all QUALIFIED LIFEGUARDS on-duty.
5.8.5.3.10[A] Rescue Throwing Device AQUATIC FACILITIES with one QUALIFIED LIFEGUARD shall provide and maintain a U.S. Coast Guard-approved aquatic rescue throwing device as per the specifications of 5.8.5.4.1.
5.8.5.3.1[A] Reaching Pole AQUATIC FACILITIES with one QUALIFIED LIFEGUARD shall provide and maintain a reaching pole as per the specifications of 5.8.5.4.2.
5.8.5.4 Safety Equipment and Signage Required at Facilities without Lifeguards
5.8.5.4.1[A] Throwing Device AQUATIC VENUES whose depth exceeds 2 feet *(61.0 cm)* of standing water shall provide and maintain a U.S. Coast Guard-approved aquatic rescue throwing device, with at least a quarter-inch *(6.3 mm)* thick rope whose length is 50 feet *(15.2 m)* or 1.5 times the width of the POOL, whichever is less.
5.8.5.4.1.1 Throwing Device Location The rescue throwing device shall be located in the immediate vicinity to the AQUATIC VENUE and be accessible to BATHERS.
5.8.5.4.2[A] Reaching Pole AQUATIC VENUES whose depth exceeds 2 feet *(61 cm)* of standing water shall provide and maintain a reaching pole of 12 feet *(3.7 m)*–16 feet *(4.9 m)* in length, non-telescopic, light in weight, and with a securely attached Shepherd's Crook with an aperture of at least 18 inches *(45.7 cm)*.
5.8.5.4.2.1 Reaching Pole Location The reaching pole shall be located in the immediate vicinity to the AQUATIC VENUE and be accessible to BATHERS and PATRONS.
5.8.5.4.2.2 Non-Conductive Material Reaching poles provided by the AQUATIC FACILITY after the adoption date of this CODE shall be of non-conductive material.
5.8.5.4.3[A] CPR Posters CPR posters that are up to date with latest CPR programs and protocols shall be posted conspicuously at all times.
5.8.5.4.4[A] Imminent Health Hazard Sign A sign shall be posted outlining the IMMINENT HEALTH HAZARDS, which require AQUATIC VENUE or AQUATIC FACILITY closure as defined in this CODE per 6.6.3.1 and a telephone number to report problems to the owner/operator.
5.8.5.4.5[A] Additional Signage For any AQUATIC VENUE with standing water, a sign shall be posted signifying a QUALIFIED LIFEGUARD is not on duty and that the following rules apply:

1) Persons under the age of 14 years cannot be in the AQUATIC VENUE without direct supervision by a person aged 18 years or older; and
2) Youth and childcare groups are not allowed without a QUALIFIED LIFEGUARD providing PATRON surveillance.

5.8.6 Barriers and Enclosures

5.8.6.1 General Requirements All required ENCLOSURES shall be maintained to prevent unauthorized entry to the protected space.
5.8.6.2 Construction Requirements (N/A)
5.8.6.3 Gates and Doors
5.8.6.3.1 Self-Closing and Latching All primary public access gates or doors serving as part of an ENCLOSURE shall have functional self-closing and self-latching closures.. **5.8.6.3.1.1 Exception** Gates or doors used solely for after-hours maintenance shall remain locked at all times when not in use by staff.
5.8.6.3.1.2 Propping Open Required self-closing and self-latching gates or doors with staff at the entry point may be maintained in the open position when the AQUATIC VENUE is open and staffed as required.
5.8.6.3.1.3 Locked Gates or doors must be locked when the AQUATIC VENUE is closed.

5.9[A] Filter/Equipment Room

5.9.1 Chemical Storage

5.9.1.1[A] Code Compliance Chemical storage shall be in compliance with all applicable local, state, territorial, federal, and tribal laws.

5.9.1.2[A] OSHA and EPA [Deleted]

5.9.1.3[A] Safety Data Sheets For each chemical, STORAGE, handling, and use of the chemical shall be in compliance with the manufacturer's SDS and labels.

5.9.1.4 Access Prevention AQUATIC VENUE chemicals shall be stored to prevent access by unauthorized individuals.

5.9.1.5[A] Protected AQUATIC VENUE chemicals shall be stored so that they are protected from getting wet.

5.9.1.6[A] No Mixing AQUATIC VENUE chemicals shall be stored so that if the packages were to leak, no mixing of incompatible materials would occur.

5.9.1.6.1 Safety Data Sheets Consulted SDS shall be consulted for incompatibilities.

5.9.1.7[A] Ignition Sources Possible ignition sources, including but not limited to gasoline, diesel, natural gas, or gas-powered equipment such as lawn mowers, motors, grills, POOL heaters, or portable stoves shall not be stored or installed in the CHEMICAL STORAGE SPACE.

5.9.1.8 Smoking Smoking shall be prohibited in the CHEMICAL STORAGE SPACE.

5.9.1.9[A] Lighting Lighting shall be at minimum 30 footcandles *(323 lux)* to allow operators to read labels on containers throughout the CHEMICAL STORAGE SPACE and pump room.

5.9.1.10[A] Personal Protective Equipment PPE shall be available as indicated on the chemical SDSs.

5.9.1.11 Storage Chemicals shall be stored away from direct sunlight, temperature extremes, and high humidity.

5.9.1.12 Single Container A single container of a particular chemical that has been opened and that is currently in use in the pump room may be kept in a staging area of the pump room only if the chemical*(s)* will be protected from exposure to heat and moisture.

5.9.1.13 Separate The CHEMICAL STORAGE SPACE shall be separate from the equipment room.

5.9.1.13.1 Waiver For AQUATIC FACILITIES that do not currently have a CHEMICAL STORAGE SPACE separate from the EQUIPMENT ROOM, this requirement may be waived at the discretion of the local public health and/or fire officials if the chemicals are protected from exposure to heat and moisture and no IMMINENT HEALTH HAZARDS or SAFETY threats are identified.

5.9.1.14 Warning Signs Warning signs in compliance with NFPA or HMIS ratings shall be posted on CHEMICAL STORAGE SPACE doors.

5.9.2 Chemical Handling

5.9.2.1 Identity 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 or EPA materials labeling requirements.

5.9.2.1.1 Labeling All AQUATIC VENUE chemical containers shall be labeled according to OSHA or EPA materials labeling requirements.

5.9.2.2 NSF Standard The chemical equipment used in controlling the quality of water shall be CERTIFIED, LISTED, AND LABELED to NSF/ANSI50 by an ANSI-accredited certification organization and used only in accordance with the manufacturer's instructions.

5.9.2.3 Measuring Devices Chemicals shall be measured using a dedicated measuring device where applicable.

5.9.2.3.1 Clean and Dry 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.

5.9.2.4 Chemical Addition Methods

5.9.2.4.1 Automatically Introduced DISINFECTION and pH control chemicals shall be automatically introduced through the RECIRCULATION SYSTEM for new and SUBSTANTIALLY ALTERED AQUATIC VENUES.

5.9.2.4.1.1 Manual Addition SUPERCHLORINATION or shock chemicals and other POOL chemicals other than DISINFECTION and pH control may be added manually to the POOL.
5.9.2.4.1.2 Absence of Bathers Chemicals added manually directly into the AQUATIC VENUE shall only be introduced in the absence of BATHERS.
5.9.2.4.2 Safety Requirements Treatment chemicals shall be added in strict adherence to the manufacturer's use instructions to ensure levels in the water are safe for human exposure. Refer to5.7.3.
5.9.2.4.2.1 Diluted Whenever required by the manufacturer, chemicals shall be diluted *(or mixed with water)* prior to application and as per the manufacturer's directions.
5.9.2.4.2.2 Added Chemicals shall be added to water when diluting as opposed to adding water to a concentrated chemical.
5.9.2.4.2.3 Mixed Each chemical shall be mixed in a separate, labeled container.
5.9.2.4.2.3.1 Never Mixed Together Two or more chemicals shall never be mixed in the same dilution water.

5.10 Hygiene Facilities

5.10.1 General [N/A]

5.10.2 Location [N/A]

5.10.3 Bathhouse Design [N/A]

5.10.4 Plumbing Fixture Requirements

5.10.4.1 [A] General Requirements

5.10.4.1.1 Cleaned and Sanitized HYGIENE FACILITY FIXTURES, dressing area FIXTURES, and furniture shall be cleaned and SANITIZED daily with an EPA–REGISTERED product, and more often if necessary, to provide a clean and sanitary environment.
5.10.4.1.2 Mold and Mildew HYGIENE FACILITY floors, walls, and ceilings shall be kept clean and free of visible mold and mildew.
5.10.4.1.3 Hand Wash Station HANDWASHING STATIONS shall include the following items:

1) Hand wash sink,
2) Adjacent soap with dispenser,
3) Hand drying device or paper towels and dispenser, and
4) Trash receptacle.

5.10.4.2 Cleansing Showers

5.10.4.2.1 Cleaned and Sanitized CLEANSING SHOWERS shall be cleaned and SANITIZED daily with an EPA–REGISTERED product, and more often, if necessary, to provide a clean and sanitary environment.

5.10.4.3 [A] Rinse Showers

5.10.4.3.1 Cleaned RINSE SHOWERS shall be cleaned daily and more often, if necessary, with an EPA–REGISTERED product and more often if necessary to provide a clean and sanitary environment.
5.10.4.3.2 Easy Access RINSE SHOWERS shall be easily accessible.
5.10.4.3.3 Not Blocked Equipment and furniture on the DECK shall not block access to RINSE SHOWERS.
5.10.4.3.4 No Soap Soap dispensers and soap shall be prohibited at RINSE SHOWERS.

5.10.4.4 All Showers [N/A]

5.10.4.5 [A] Diaper-Changing Stations

DIAPER-CHANGING STATIONS are required in all new and SUBSTANTIALLY ALTERED AQUATIC FACILITIES upon adoption of this CODE per 4.10.4.5.1.
5.10.4.5.1 Hand Wash Sink Installed and Operational The adjacent handwashing sink shall be installed and operational.
5.10.4.5.2 Cleaned DIAPER-CHANGING STATIONS shall be cleaned and disinfected daily and more often if necessary to provide a clean and sanitary environment.
5.10.4.5.2.1 Maintained They shall be maintained in good condition and free of visible contamination.

5.10.4.5.3 Disinfectant EPA–REGISTERED disinfectant shall be provided in the form of either of the following:

1) A solution in a spray dispenser with paper towels and dispenser, or
2) Wipes contained within a dispenser.

5.10.4.5.3.1 Covers If disposable DIAPER-CHANGING UNIT covers are provided in addition to disinfectant, they shall cover the DIAPER-CHANGING UNIT surface during use and keep the unit in clean condition.

5.10.4.5.4 Portable Handwashing Station [Deleted]

5.10.4.6 [A] Non-Plumbing Fixture Requirements

5.10.4.6.1 Paper Towels If paper towels are used for hand drying, a dispenser and paper towels shall be provided for use at HANDWASHING STATIONS.

5.10.4.6.2 Soap Soap dispensers shall be provided at HANDWASHING STATIONS and CLEANSING SHOWERS and shall be kept full of liquid or granular soap.

5.10.4.6.2.1 Bar Soap Bar soap shall be prohibited.

5.10.4.6.3 Trash A minimum of one hands-free trash receptacle shall be provided in areas adjacent to handwashing sinks.

5.10.4.6.3.1 Trash Emptying Trash receptacles shall be emptied daily and more often if necessary to provide a clean and sanitary environment.

5.10.4.6.4 Floor Coverings Non-permanent floor coverings *(including but not limited to mats and racks)* shall be removable and maintained in accordance with 5.10.4.1.1.

5.10.4.6.4.1 Wood Wooden racks, duckboards, and wooden mats shall be prohibited on HYGIENE FACILITY and dressing area flooring.

5.10.4.7 Sharps [Deleted]

5.10.5 Provision of Suits, Towels, and Shared Equipment

5.10.5.1 [A] Towels All towels provided by the AQUATIC FACILITY shall be washed with detergent in warm water, rinsed, and thoroughly dried at the warmest temperature listed on the fabric label after each use.

5.10.5.2 Suits Any attire provided by the AQUATIC FACILITY shall be washed in accordance with the fabric label or manufacturer's instructions.

5.10.5.3 Receptacles Non-absorbent, easily cleanable receptacles shall be provided for collection of used suits and towels.

5.10.5.4 [A] Shared Equipment Cleaned and Sanitized 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.

5.10.5.5 [A] Other Equipment 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.

5.10.5.6 Good Repair Shared equipment shall be maintained in good repair.

5.10.5.7 Used Equipment Used and un-SANITIZED shared equipment shall be kept separate from cleaned and SANITIZED shared equipment.

5.10.5.7.1 Receptacles Non-absorbent, easily cleanable receptacles shall be provided for collection of used shared equipment.

5.11 Water Supply / Wastewater Disposal [N/A]

5.12 Special Requirements for Specific Aquatic Venues

5.12.1 Spas

5.12.1.1 Required Operation Time SPA filtration systems shall be operated 24 hours per day except for periods of draining, filling, and maintenance.

5.12.1.2 [A] Drainage and Replacement SPAS shall be drained, cleaned, scrubbed, and water replaced as calculated in 5.12.1.2.1 or as needed to maintain water clarity and quality

5.12.1.2.1 Calculated Spa pools shall be drained and refilled with fresh water at least once every 30 days.
5.12.1.3 Scrubbed SPA surfaces, including interior of SKIMMERS, shall be scrubbed or wiped down prior to refill.

5.12.2 A Waterslides and Landing Pools
5.12.2.1 Signage Warning signs shall be posted in accordance with manufacturer's recommendations.

5.12.3 Wave Pools
5.12.3.1 [A] Life Jackets U.S. Coast Guard-approved life jackets that are properly sized and fitted shall be provided free and shall be available at, or adjacent to, the AQUATIC VENUE.

5.12.4 Therapy Pools [N/A]

5.12.5 Lazy Rivers [N/A]

5.12.6 Moveable Floors
5.12.6.1 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 4 feet *(1.2 m)*. Use may only occur as per 5.6.10.3.
5.12.6.2 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 4.8.2.1.1.

5.12.7 Bulkheads
5.12.7.1 Open Area If a BULKHEAD is operated with an open area underneath, no one shall be allowed to swim beneath the BULKHEAD.
5.12.7.2 Bulkhead Travel The BULKHEAD position shall be maintained such that it cannot encroach on any required clearances of other features such as diving boards.

5.12.8 Interactive Water Play Aquatic Venues
5.12.8.1 Cracks 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.
5.12.8.2 Cleaning When cleaning the INTERACTIVE WATER PLAY AQUATIC VENUE CONTAMINANTS shall be removed or washed to the sanitary sewer.
5.12.8.2.1 No Sanitary Sewer Drain Available If no sanitary sewer drain is available then debris shall be washed/rinsed to the nearest DECK drain or removed in a manner that prevents CONTAMINANTS from reentering the INTERACTIVE WATER PLAY AQUATIC VENUE.

5.12.9 Wading Pools [N/A]

5.12.10 Other Aquatic Venues [N/A]

6.0 Policies and Management

The provisions of Chapter 6 shall apply to all AQUATIC FACILITIES covered by this CODE regardless of when constructed, unless otherwise noted.

Note: Section numbers with superscript "A" (e.g., 6.0A) denote a corresponding discussion in the Annex to the Model Aquatic Health Code.

6.0.1[A] Staff Training All QUALIFIED OPERATORS, RESPONSIBLE SUPERVISORS, maintenance staff, QUALIFIED LIFEGUARD staff, or any others who are involved in the STORAGE, use, or handling of chemicals shall receive training prior to access of chemicals and receive at least an annual review of procedures thereafter for the following topics discussed in 6.0.1.1 to 6.0.1.5.

6.0.1.1 Storage and Handling Procedures for chemical storage and handling outlined in this CODE.

6.0.1.2 Personal Protective Equipment Procedures STANDARD precautions, PPE, and other measures to minimize exposure to chemicals as required by OSHA. This shall include staff training in PPE and respiratory protective devices when required.

6.0.1.3 Spill Procedures Spill Procedures and Emergency Response outlined in this CODE.

6.0.1.4 OSHA Requirements Federal OSHA Requirements: Hazard Communication Standard *(Employee Right-to-Know)* and SDS. Know the location and availability of STANDARD and the written program.

6.0.1.5 Chemical and Safety Data Sheets Lists Know workplace chemicals list and SDS.

6.0.1.6 Training Plan Employers shall have a training plan in place and implement training for employees on chemicals used at the AQUATIC FACILITY before their first assignment and whenever a new hazard is introduced into the work area.

6.0.1.6.1[A] Training Topics The training shall include at a minimum:

1) How to recognize and avoid chemical hazards,
2) The physical and health hazards of chemicals used at the facility,
3) How to detect the presence or release of a hazardous chemical,
4) Required PPE necessary to avoid the hazards,
5) Use of PPE,
6) Chemical spill response, and
7) How to read and understand the chemical labels or other forms of warning including SDS sheets.

6.0.1.7 Training Records Records of all training shall be recorded and maintained on file.

6.0.1.8[A] Body Fluid Exposure 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.

6.0.1.9 Exposure Control Program Employers shall have an Exposure Control Program for bloodborne pathogens as required by OSHA 29 CFR 1910.1030.

6.0.1.10 Personal Protective Equipment Provided and Disposed PPE shall be provided, properly stored, and properly disposed.

6.1 Qualified Operator Training

6.1.1[A] Qualified Operator Qualifications and Certification for General Use Aquatic Venues

6.1.1.1 Qualifications A QUALIFIED OPERATOR of an AQUATIC FACILITY shall have completed an operator training course that is recognized by the AHJ. "Certified Operator" means a person performing the duties of the responsible supervisor, and responsible for providing direction and training to non-certified responsible supervisors and other pool personnel in regard to pool maintenance and operation.

6.1.1.2 Training Documentation A QUALIFIED OPERATOR shall have a current certificate or written documentation acceptable to the AHJ showing completion of an operator training course.

6.1.1.2.1 Certificate Available Originals or copies of such certificate or documentation shall be available onsite for inspection by the AHJ for each QUALIFIED OPERATOR employed at or contracted by the site, as specified in this CODE.
6.1.1.2.2 Originals Originals shall be made available upon request by the AHJ.

6.1.2[A] Essential Topics in Qualified Operator Training Courses [Deleted]

6.1.3 General Requirements for Operator Training Courses [Deleted]

6.2[A] Lifeguard Training

6.2.1[A] Lifeguard Qualifications A qualified lifeguard shall:

1) Have successfully completed an AHJ-recognized lifeguard training course offered by an AHJ-recognized training agency,
2) Possess a current certificate for such training,
3) Have met all pre-service requirements, and
4) Participate in continuing in-service training requirements of the AQUATIC FACILITY.

6.2.1.1 [A] Course Content [Deleted]
6.2.1.2 Lifeguard Training Delivery [Deleted]
6.2.1.3 Competency and Certification [Deleted]

6.2.2 Lifeguard Supervisor Training [Deleted]

6.3 Facility Staffing

6.3.1 Qualified Operator Requirements and Availability

6.3.1.1 Onsite Qualified Operator Requirements

6.3.1.1.1 At Adoption All public swimming pools serving or installed for the state or any political subdivision of the state, including a school district, municipality, or recreation district with 2000 square feet (185 m2) or more pool surface area in one or more pools must have at least one currently Certified Pool Operator, on staff. This person must be in a position with management responsibility for the way the pool is operated, including the authority to close the pool.
6.3.1.2.4 Onsite They All AQUATIC FACILITIES without a full time onsite QUALIFIED OPERATOR shall have a designated onsite RESPONSIBLE SUPERVISOR.
6.3.1.2.5[A] Onsite Responsible Supervisor Duties The designated onsite RESPONSIBLE SUPERVISOR shall:

1) Be capable of testing and recording the water quality parameters required by this CODE,
2) Know how to make adjustments, as needed, to maintain required water quality parameters required by this CODE,
3) Know general maintenance procedures as required by daily operational verifications or adjustments required by this CODE,
4) Know when the AQUATIC FACILITY or individual AQUATIC VENUE should be closed, and
5) Know how and when to contact the contracted off-site QUALIFIED OPERATOR.
6) For limited-use facilities, a responsible supervisor or individual appointed by the owner must observe all aquatic venues in person at least once every 4 hours during operating hours.

6.3.2 Aquatic Facilities Requiring Qualified Lifeguards AQUATIC VENUES with standing water and with any of the following conditions listed in 6.3.2.1 shall be required to have a lifeguard*(s)* sufficient to meet the requirements of section 6.3.3.1 conducting PATRON surveillance at all times the AQUATIC VENUE is open.

6.3.2.1 [A] List of Aquatic Facilities Requiring Qualified Lifeguards *Note: This list includes but shall not be limited to the following:*

1) Any AQUATIC VENUE while it is being used for the recreation of youth groups, including but not limited to childcare usage or school groups;
2) Any AQUATIC VENUE while it is being used for activities, including but not limited to, competitive swimming, or sports.
3) Any AQUATIC VENUE with a configuration in which any point on the AQUATIC VENUE surface exceeds 30 feet *(9.1 m)* from the nearest DECK;
4) Any AQUATIC VENUE with an induced current or wave action including but not limited to WAVE POOLS and LAZY RIVERS;
5) Waterslide landing pools;
6) 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 climbing walls. This includes POOL SLIDES that discharge into water depths deeper than five feet (1.5 m). Limited-use facilities with pool slide flumes that are 6 feet or less in height or drop slides that discharge from a height of 6 inches or less above the water, are exempted from this requirement; and
7) Any AQUATIC FACILITY that sells or serves alcohol within the ENCLOSURE, during the periods when alcohol is sold or served.
8) All GENERAL-USE AQUATIC VENUES.

6.3.3[A] Safety Plan All GENERAL-USE AQUATIC FACILITIES and LIMITED-USE AQUATIC FACILITIES that require QUALIFIED LIFEGUARDS shall create and implement a SAFETY PLAN to include, but not be limited to the following elements:

1) Staffing plan,
2) EAP,
3) Biohazard action plan,
4) Pre-service training plan, and
5) In-service training plan.

6.3.3.1 [A] Code Compliance Staff Plan Staffing plans shall designate person(s) as members of the SAFETY TEAM and person(s) for the following responsibilities:

1) Identifying and communicating health and SAFETY hazards;
2) Mitigating health and SAFETY hazards and closing the facility, if needed;
3) Interfacing with the AHJ related to the requirements of this CODE;
4) Maintaining water quality and, if required, air quality;
5) Enforcing the AQUATIC FACILITY rules and regulations;
6) Responding to reported emergencies;
7) Supervising the SAFETY TEAM;
8) Conducting pre-service evaluations; and
9) Conducting in-service training.

6.3.3.1.1[A] Zone of Patron Surveillance When QUALIFIED LIFEGUARDS are used, the staffing plan shall include diagrammed zones of PATRON surveillance for each AQUATIC VENUE such that:

1) The QUALIFIED LIFEGUARD is capable of viewing the entire area of the assigned zone of PATRON surveillance;
2) The QUALIFIED LIFEGUARD is able to reach the furthest extent of the assigned zone of PATRON surveillance within 20 seconds;
3) Identify whether the QUALIFIED LIFEGUARD is in an elevated stand, walking, in-water and/or other approved position;
4) Identifying any additional responsibilities for each zone; and

5) All areas of each AQUATIC VENUE are assigned a zone of PATRON surveillance.

6.3.3.1.2[A] Rotation Procedures When QUALIFIED LIFEGUARDS are used, the staffing plan shall include QUALIFIED LIFEGUARD rotation procedures such that:

1) Identifying all zones of PATRON surveillance responsibility at the AQUATIC FACILITY,

2) Operating in a manner so as to provide an alternation of tasks such that no QUALIFIED LIFEGUARD conducts PATRON surveillance activities for more than 60 continuous minutes, and

3) Have a practice of maintaining coverage of the zone of PATRON surveillance during the change of the QUALIFIED LIFEGUARD.

6.3.3.1.3 Alternation of Tasks Alternation of tasks may include any one of the following:

1) Change of zone of PATRON surveillance where the QUALIFIED LIFEGUARD must walk or be transported to another zone of PATRON surveillance.

2) Have a period of at least 10 minutes of non-PATRON surveillance activity such as taking a break, conducting maintenance, or conducting ride dispatch.

6.3.3.1.4 Supervision Protocols When QUALIFIED LIFEGUARDS are used, the staffing plan shall include lifeguard supervision protocols to achieve the requirements of 6.3.3.

6.3.3.2[A] Emergency Action Plan EAPs and operating procedures shall include but not be limited to:

1) Outline types of emergencies and IMMINENT HEALTH HAZARDS, as per 6.6.3;

2) Outline the methods of communication between responders, emergency services, and PATRONS;

3) Identify each anticipated responder;

4) Outline the tasks of each responder;

5) Identify required equipment for each task; and

6) Emergency closure requirements.

6.3.3.2.1[A] Coordination of Response When one or more QUALIFIED LIFEGUARDS are used, the SAFETY PLAN and the EAP shall identify the best means to provide additional persons to rapidly respond to the emergency to help the initial rescuer.

6.3.3.3 Pre-Service Requirements The Pre-Service Plan shall include:

1) Policies and procedure training specific to the AQUATIC FACILITY,

2) Demonstration of SAFETY TEAM skills specific to the AQUATIC FACILITY prior to assuming on-duty lifeguard responsibilities, and

3) Documentation of training.

6.3.3.3.1[A] Safety Team EAP Training Prior to active duty, all members of the SAFETY TEAM shall be trained on, and receive a copy of, and/or have a copy posted and always available of the specific policies and procedures for the following:

1) Staffing plan;

2) EAP;

3) Emergency closure; and

4) Fecal, vomit, or blood contamination on surfaces and in the water as outlined in 6.5.

6.3.3.3.2[A] Safety Team Skills Proficiency Prior to active duty, all members of the SAFETY TEAM shall demonstrate knowledge and skill competency specific to the AQUATIC FACILITY for the following criteria:

1) Understand their responsibilities and of others on the AQUATIC FACILITY SAFETY TEAM,

2) Ability to execute the EAP,

3) Know what conditions require closure of the facility, and

4) Know what actions to take in response to a fecal, vomit, or blood contamination on a surface and in the water as outlined in 6.5.

6.3.3.3.3[A] Qualified Lifeguard Emergency Action Plan Training When QUALIFIED LIFEGUARDS are used, they shall be trained on the EAP and receive a copy of or have a copy of the EAP posted and always available at the AQUATIC FACILITY, specifically including policies and procedures for the following:

1) Zone of PATRON surveillance plan,
2) Rotation plan,
3) Minimum staffing plan, and
4) Rescue / first aid response plan.

6.3.3.3.4[A] Qualified Lifeguard Skills Proficiency When QUALIFIED LIFEGUARDS are used, they shall demonstrate knowledge and skill competency specific to the AQUATIC FACILITY for the following criteria:

1) Ability to reach the bottom at the maximum water depth of the AQUATIC VENUE to be assigned;
2) Ability to identify all zones of BATHER surveillance responsibility to which they could be assigned;
3) Ability to recognize a victim in their assigned zone of BATHER surveillance;
4) Ability to reach the furthest edge of assigned zones of BATHER surveillance within 20 seconds;
5) Water rescue skills outlined in 6.2.1.1.2;
6) CPR/AED and first aid;
7) Ability to execute EAP;
8) Emergency closure issues; and
9) Fecal, vomit, or blood contamination incident response as outlined in 6.5.

6.3.3.5[A] AHJ Authority to Approve Safety Plan The AHJ shall have the authority, if they so choose, to require:

1) Submittal of the SAFETY PLAN for archiving and reference or
2) Submittal of the SAFETY PLAN for review and approval prior to opening to the public.

6.3.3.5.1[A] Safety Plan on File The SAFETY PLAN shall be kept on file at the AQUATIC FACILITY.

6.3.3.5.2[A] Safety Plan Implemented The elements detailed in the SAFETY PLAN shall be implemented and in evidence in the AQUATIC FACILITY operation and is subject to review for compliance by the AHJ at any time.

6.3.4 Staff Management

6.3.4.1 Staff Provided Prior to Aquatic Venue Use Prior to use of any AQUATIC VENUE, the AQUATIC FACILITY shall provide staff required per the provisions of the SAFETY PLAN as stated in 6.3.2.

6.3.4.2 Safety Team Responsibilities SAFETY TEAM responsibilities shall include but not be limited to:

1) Enforce the AQUATIC FACILITY rules and regulations by interfacing with PATRONS,
2) Respond to reported emergencies,
3) Identify health and SAFETY hazards and take action to mitigate or avoid the hazard,
4) Know where PPE is located and use it when required, and
5) Interface with the AHJ related to the requirements of this CODE.

6.3.4.3 Lifeguard Staff

6.3.4.3.1[A] Minimum Number of Lifeguards AQUATIC FACILITIES that require lifeguards must provide the minimum number of lifeguards during all hours of operation:

1) One lifeguard for every 40 patrons in the pool, or fraction thereof, shall be provided.
2) A pool operator may submit a lifeguard safety plan as an alternative to compliance with section (1) of this rule.

6.3.4.3.2[A] Lifeguard Responsibilities QUALIFIED LIFEGUARD responsibilities shall include but not be limited to:

1) MONITOR PATRONS within the zone of PATRON surveillance responsibility;
2) Enforce facility rules;
3) Respond to emergencies including water rescue, CPR, AED use if equipment is provided with established local protocols, 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 level of proficiency;
6) Wear the identifying uniform;

7) If needed for effective PATRON surveillance, wear corrective eyewear as necessary to correct poor vision and wear polarized sunglasses;
8) If exposed to UV, wear SPF 15 or greater UV protection; and
9)Know where PPE is located and use it when required.

6.3.4.3.3[A] Shallow Water Certified Lifeguards QUALIFIED LIFEGUARDS certified for shallow water depths shall not be assigned to a BODY OF WATER in which any part of the water's depth is greater than the depth for which they are certified.

6.3.4.3.4[A] Direct Surveillance QUALIFIED LIFEGUARDS assigned responsibilities for PATRON surveillance shall not be assigned other tasks that intrude on PATRON surveillance while performing those surveillance activities.

6.3.4.3.5[A] Distractions While conducting BATHER surveillance, QUALIFIED LIFEGUARDS shall not engage in social conversations or have on their person or lifeguard station, reading materials, cellular telephones, texting devices, music players, or other similar non-emergency electronic devices.

6.3.4.4 Supervisor Staff

6.3.4.4.1[A] Lifeguard Supervisor Required AQUATIC FACILITIES that are required to have two or more QUALIFIED LIFEGUARDS to satisfy Zone responsibilities per the Zone Plan of BATHER Surveillance in 6.3.3.1.1, shall have an additional person at the AQUATIC FACILITY during all hours of operation designated as the LIFEGUARD SUPERVISOR who meets the requirement of 6.2.2.

6.3.4.4.2[A] DesignatedSupervisor OneoftheQUALIFIEDLIFEGUARDSasper6.3.3.1.1 may be designated as the LIFEGUARD SUPERVISOR in addition to fulfilling the duties of QUALIFIED LIFEGUARD.

6.3.4.4.2.1 Lifeguard Supervisor Duties LIFEGUARD SUPERVISOR duties shall not interfere with the primary duty of PATRON surveillance.

6.3.4.4.3 Lifeguard Supervisor LIFEGUARD SUPERVISOR responsibilities shall include but not be limited to:

1) MONITOR performance of QUALIFIED LIFEGUARDS in their Zone of BATHER surveillance responsibility,
2) Make sure the rotation is conducted in accordance with the SAFETY 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 otherwise avoid the hazard, and
5) Make sure the required equipment per 5.8.5 is in place and in good condition.

6.3.4.5 Emergency Response and Communications Plans

6.3.4.5.1[A] Emergency Response and Communication Plan AQUATIC FACILITIES 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.

6.3.4.5.2 Emergency Action Plan A written EAP shall be developed, maintained, and updated as necessary for the AQUATIC FACILITY.

6.3.4.5.3 Annual Review and Update The EAP shall be reviewed with the AQUATIC FACILITY staff and management annually or more frequently as required when changes occur with the dates of the review recorded in the EAP.

6.3.4.5.4 Available for Inspection The written EAP shall be kept at the AQUATIC FACILITY and available for emergency personnel and/or AHJ upon request.

6.3.4.5.5[A] Training Documentation Documentation from employees trained in current EAP shall be available upon request.

6.3.4.5.6 Components 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 *(BVM, AED, if provided, backboard, etc.)*;
4) An emergency response plan for accidental chemical release; and
5) A fecal/vomit/blood CONTAMINATION RESPONSE PLANS as outlined in 6.5.1.

6.3.4.5.6.1 Accidental Chemical Release Plan The accidental chemical release plan shall include procedures for:

1) How to determine when professional hazardous materials (HAZMAT) response is needed,
2) How to obtain it,
3) Response and cleanup,
4) Provision for training staff in these procedures, and
5) A list of equipment and supplies for cleanup.

6.3.4.5.6.2 Remediation Supplies The availability of equipment and supplies for remediation procedures shall be verified by the operator at least weekly.

6.3.4.5.7 Facility Evacuation Plan A written Facility Evacuation Plan shall be developed and maintained for the facility.

6.3.4.5.7.1 Evacuation Plan Components 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.

6.3.4.5.8[A] Communication Plan A communication plan shall exist to facilitate activation of internal emergency response centers and/or community 911/EMS as necessary.

6.3.4.5.8.1 Communication Plan Components At a minimum, this plan shall include:

1) Provision and use of readily accessible, appropriate communication devices such as telephones, call boxes, and mobile devices;
2) Signage;
3) Procedures to be followed during staffed and unstaffed time periods;
4) Acceptable alternative communication during loss of power; and
5) Training of all personnel.

6.3.4.5.8.2[A] Notification Procedures The communication plan shall include a plan for notification to federal or tribal; state or territorial; and local agencies in case of a chemical spill that exceeds the EPA reportable quantity.

6.3.4.5.9[A] Inclement Weather Plan AQUATIC FACILITIES shall have a contingency/response plan for localized weather events that may affect their operation *(i.e., lightning, hurricanes, tornados, high winds, etc.)*.

6.3.4.5.9.1 Contingency Plan Contingency plans shall include training for employees, evacuation procedures, and determining when it is acceptable to reopen a facility for operation.

6.3.4.6[A] Remote Monitoring Systems

6.3.4.6.1[A] Lifeguard-Based Lifeguard-based remote SAFETY MONITORING systems shall not replace the need for QUALIFIED LIFEGUARDS.

6.3.4.6.1.1 No Substitute Remote SAFETY MONITORING systems may be used to aid the operation but not as a substitute for QUALIFIED LIFEGUARDS/SLIDE operators when critical areas such as blind spots in an AQUATIC VENUE or area of a SLIDE cannot be viewed by QUALIFIED LIFEGUARDS/SLIDE operators.

6.3.4.6.2[A] Operator-Based QUALIFIED OPERATOR-based remote water quality MONITORING systems shall not be a substitute for manual water quality testing of the AQUATIC VENUE.

6.3.4.6.3 Training When QUALIFIED 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.

6.3.4.7[A] Employee Illness and Injury Policy

6.3.4.7.1 Illness Policy Supervisors shall not permit employees who are ill with diarrhea to enter the water or perform in a QUALIFIED LIFEGUARD role.

6.3.4.7.2 Open Wounds Supervisors shall permit employees with open wounds in the water or in a QUALIFIED LIFEGUARD role only if they have healthcare provider approval or wear a waterproof, occlusive bandage to cover the wound.

6.4[A] Aquatic Facility Management

6.4.1 Operations

6.4.1.1 Operations Manual

6.4.1.1.1[A] Develop Each AQUATIC FACILITY shall develop an operations manual to keep at the AQUATIC FACILITY in printed or electronic formats.

6.4.1.1.2[A] Include 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/blood CONTAMINATION RESPONSE PLANS,
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.

6.4.1.2 Operation Records AQUATIC FACILITIES shall keep records pertaining to the operation, maintenance, and management of the AQUATIC FACILITY on a minimum schedule as prescribed under 6.4.1.2.

6.4.1.2.1 Record Maintenance AQUATIC FACILITY records shall be:

1) Kept for a minimum of 3 years and
2) Available upon request by the AHJ.

6.4.1.3 Safety and Maintenance Inspection and Recordkeeping The QUALIFIED OPERATOR or RESPONSIBLE SUPERVISOR shall ensure that SAFETY and preventive maintenance inspections are done at the AQUATIC FACILITY during seasons or periods when the AQUATIC FACILITY is open and that the results are recorded in a log or form maintained at the AQUATIC FACILITY.

6.4.1.3.1 Daily Inspection Items The QUALIFIED OPERATOR or RESPONSIBLE SUPERVISOR shall ensure that a daily AQUATIC FACILITY preventive maintenance inspection is done before opening and that it shall include:

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 as required by this CODE 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 TREATMENT and SUPPLEMENTAL TREATMENT 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 have been removed from accessible surfaces of AQUATIC VENUES, SLIDES, and other AQUATIC FEATURES;
12) Doors to nonpublic areas *such as CHEMICAL STORAGE SPACES and offices* are locked;
13) First aid supplies, if supplied, are stocked;
14) Emergency communication equipment and systems are operational;
15) Fecal/vomit/blood incident CONTAMINATION RESPONSE PLANS, materials, and equipment are available;
16) Water features and amenities are functioning in accordance with the manufacturer's recommendations;

17) Fencing/ENCLOSURES, gates, and self-latching or other locks are tested and are intact and functioning properly, and ENCLOSURES do not have nearby furniture to encourage climbing;
18) Drinking fountains, if required, are clean and in functional condition;
19) Electrical devices are in good working condition and meet the requirements specified in these rules;
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.

6.4.1.4[A] Illness and Injury Incident Reports

6.4.1.4.1 Incidents to Record The owner/operator shall ensure that a record is made of all injuries and illness incidents at the AQUATIC FACILITY which:

1) Result in death;
2) Require resuscitation, CPR, oxygen, or AED use to be initiated;
3) Require transportation or treatment of a PATRON to a medical facility; or
4) Results in a PATRON being diagnosed with a recreational water illness.

6.4.1.4.2 Info to Include Illness and injury incident report information shall include

1) Date,
2) Time,
3) Location,
4) Incident including type of illness or injury and cause or mechanism,
5) Names and addresses of the individuals involved,
6) Actions taken,
7) Equipment used, and
8) Outcome of the incident.

6.4.1.4.3[A] Notify the AHJ In addition to making such records, the owner/operator shall ensure that the AHJ is notified within 72 hours of the occurrence of an incident recorded in 6.4.1.4.1.

6.4.1.4.4[A] Lifeguard Rescue Records The owner/operator shall also record all lifeguard rescues where the QUALIFIED LIFEGUARD enters the water and activates the aquatic EAP.

6.4.1.4.4.1 Info to Include These records shall include the date, time, QUALIFIED LIFEGUARD, and PATRON names and reason the rescue was needed.

6.4.1.5 Chemical Inventory Log A chemical inventory log shall be maintained onsite to provide a list of chemicals used in the AQUATIC VENUE water and surrounding DECK that could result in water quality issues, chemical interactions, or PATRON exposure.

6.4.1.5.1 Expiration Dates These records shall include the expiration date for water quality chemical testing reagents.

6.4.1.6[A] Daily Water Monitoring and Testing Records Daily, or as often as required, MONITORING and testing records shall include, but are not limited to the following:

1) pH;
2) Disinfectant residuals;
3) COMBINED CHLORINE concentrations;
4) Operating pressures of water recirculation pumps and filters or the corresponding flow rate from flow meter readings;
5) CYA levels, if used;
6) Maintenance and malfunctioning of equipment, including dates and time of all equipment calibration including WQTDs;
7) Dates of challenge testing of the chemical feeder interlock system as outlined in 5.7.3.5.1.4.1;
8) If heated, AQUATIC VENUE water temperature;
9) The time of filter backwash or cleaning;
10) Calcium hardness;
11) Total alkalinity;
12) Saturation index;
13) Microbiological testing, if applicable, dates/times samples were taken and results;
14) Any equipment failure, power outage, or error resulting in the interruption of the circulation, filtration, or DISINFECTION systems for more than 1 hour;

15) The daily attendance at the AQUATIC FACILITY. In POOLS where attendance is not ordinarily recorded, a guest sign in book can be used to track attendance; and
16) SECONDARY TREATMENT as outlined in 5.7.3.7.7 and 5.7.3.7.8.

6.4.1.7 Staff Certifications on File The originals or copies of all required QUALIFIED LIFEGUARD, LIFEGUARD SUPERVISOR, or QUALIFIED OPERATOR certificates shall be maintained at the AQUATIC FACILITY and made available to AHJ, staff, and PATRONS upon request.

6.4.1.7.1 Multiple Facilities A copy of the original certificate shall be made available when employees work at multiple AQUATIC FACILITIES.

6.4.1.8[A] Bodily Fluids Remediation Log

6.4.1.8.1[A] Contamination Incidents 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.

6.4.1.8.2 Standard Operating Procedures The AQUATIC FACILITY'S STANDARD operating procedures for responding to these contamination incidents shall be readily available for review by the AHJ.

6.4.1.8.3 Required Information The log shall include the following information recorded at the time of the incident:

1) Person conducting response;
2) Qualified operator or onsite responsible supervisor on duty;
3) Date and time of incident response;
4) Specific area, if not in the water, contaminated by incident;
5) BATHER COUNT or reasonable approximation of the number of BATHERS in the AQUATIC VENUE at the time of incident *(if applicable)*;
6) Type and form of body fluid observed *(for example, diarrheal or formed stool, vomit, or blood)*;
7) Date and time when the area was closed;
8) Whether the POOL uses CHLORINE stabilizer and concentration at time of incident;
9) Residual disinfectant *(e.g., DPD-FC)* concentration and pH at the time of incident;
10) Remediation procedures used after the incident including contact time, if applicable;
11) Residual disinfectant *(e.g., DPD-FC)* concentration and pH 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.

6.4.2 Patron-Related Management Aspects

6.4.2.1 Bather Count

6.4.2.1.1[A] User Guidance AQUATIC FACILITIES shall have a plan in place to address fluctuations in BATHER occupancy to ensure proper maintenance and staffing.

6.4.2.1.2 Maximum Occupancy Such plans shall not exceed the maximum designed THEORETICAL PEAK OCCUPANCY for the individual AQUATIC VENUES or the AQUATIC FACILITY.

6.4.2.2[A] Signage

6.4.2.2.1 Facility Rules The operator shall post and enforce the AQUATIC FACILITY rules governing health, SAFETY, and sanitation. Pools with existing pool rule signs may wait to comply with the requirements of this rule until the signs are replaced, repaired or moved.

6.4.2.2.2 Lettering The lettering shall be legible and at least 1 inch *(25.4 mm or 3- point type)* high, unless otherwise noted, with a contrasting background.

6.4.2.2.3[A] Sign Messages Signage shall be placed in a conspicuous place at the entrance of 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, per 6.3.4.5.8;
2) Hours of operation;
3) MAXIMUM BATHER LOAD;
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 2 weeks;

6) SHOWER before entering the water;
7) No glass items in the AQUATIC VENUE or on the DECK;
8) Do not swallow or spit water;
9) Diaper changing on the DECK is prohibited;
10) No Diving, as applicable per 5.5.5;
11) Intentional hyperventilation or extended breath holding activities are dangerous and prohibited;
12) No animals in the AQUATIC VENUE and no animals on the DECK, except service animals, if applicable;
13) No rough play or running; and
14) Children under the age of 14 years must have direct supervision by a person aged 18 years or older.
15) BATHERS who are incontinent or not toilet trained must wear a swim diaper.
16) Immuno-compromised individuals should use caution when using a public AQUATIC VENUE.
17) No food or drink allowed in the pool.
18) No person under the influence of alcohol may use the pool.

6.4.2.2.3.1 Aquatic Facilities with Onsite Emergency Personnel 6.4.2.2.3 signage requirement number 1 may be amended to include onsite emergency staff contact information if emergency trained personnel are onsite so that the response would be faster than calling 911.

6.4.2.2.3.2 Diving Well AQUATIC FACILITIES with diving wells may amend signage requirement number 11 to read that diving is not allowed in all AQUATIC VENUES except for the diving well.

6.4.2.2.3.3 Posters Recreational water illness and injury prevention posters shall be posted conspicuously in the AQUATIC FACILITY at all times.

6.4.2.2.3.4 Unstaffed Aquatic Facilities without Lifeguards In addition to signage messages 1 through 18, unstaffed AQUATIC FACILITIES shall also include signage messages covering:
1) No Lifeguard on Duty (In letters at least 4 inches high); and
2) Hours of operation: AQUATIC FACILITY use prohibited at any other time.
3) Bring a Friend: Do not Swim Alone

6.4.2.2.3.4.1 Posters In AQUATIC FACILITIES not requiring lifeguards, CPR posters reflecting the latest STANDARDS shall be posted conspicuously at all times.

6.4.2.2.3.5 Multiple Aquatic Venues For AQUATIC FACILITIES with multiple AQUATIC VENUES, 6.4.2.2.3 signage item numbers 3 and, if applicable, number 10, or text complying with the intent of the information, shall be posted at the entrance to each AQUATIC VENUE except such posting is not required at WATERSLIDES.

6.4.2.2.3.6 Movable Bottom Floor Signage In addition to 6.4.2.2.3 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.

6.4.2.2.3.7[A] Spa Signs In addition to 6.4.2.2.3 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 (40°C);
2) Children under age 5 and people using alcohol or drugs that cause drowsiness shall not use spas;
3) Pregnant people and those with heart disease, high blood pressure or other health problems should not use spas without prior consultation with a healthcare provider;
4) Children under the age of 14 years must have direct supervision by a person aged 18 years or older; and
5) Use of the spa when alone is prohibited (if no lifeguards onsite).
6) Bathers should spend no more than 15 minutes in the spa at any one session.

6.4.2.2.3.8 Interactive Water Play Venue Signs

INTERACTIVE WATER PLAY VENUES shall have the following information or text complying with the intent of the information below. If the venue is without an enclosure, the warning signs must be placed on four sides or not more than 50 feet apart, whichever is less.

1) "WARNING: NO LIFEGUARD" in letters at least four inches (100 mm) high
2) Do not use the pool if you have had diarrhea in the last two weeks.
3) All persons, who are not toilet trained, must wear swim diapers.
4) Do not poop or pee in the water.
5) Do not swallow or spit water.
6) Do not leave children unsupervised.
7) If the operator does not provide direct supervision, add: "For emergency assistance please (insert contact 911, or other emergency assistance site staffed during all hours the wading pool is open)" and "Please contact (insert contact person or agency and phone number) with any concerns about this pool".

6.5[A] Fecal/Vomit/Blood Contamination Response

6.5.1[A] Contamination Response Plan

6.5.1.1 Contamination Response Plan 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.

6.5.1.2 Contamination Training For GENERAL USE AQUATIC FACILITIES the CONTAMINATION RESPONSE PLAN shall include procedures for response and cleanup, provisions for training staff in these procedures, and a list of equipment and supplies for cleanup.

6.5.1.2.1[A] Minimum A minimum of one person onsite while the AQUATIC FACILITY is open for use shall be:

1) Trained in the procedures for response to formed-stool contamination, diarrheal contamination, vomit contamination, and blood contamination and
2) Trained in PPE and other OSHA measures including the Bloodborne Pathogens Standard 29 CFR 1910.1030 to minimize exposure to bodily fluids that may be encountered as employees in an aquatic environment.

6.5.1.2.2 Informed Staff shall be informed of any updates to the response plan.

6.5.1.3 Equipment and Supply Verification [Deleted]

6.5.1.4 Plan Review The response plan shall be reviewed at least annually and updated as necessary.

6.5.1.5 Plan Availability The response plan shall be kept onsite and available for viewing by the AHJ.

6.5.2 Aquatic Venue Water Contamination Response

6.5.2.1 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.

6.5.2.1.1 Closure Includes This closure shall include the affected AQUATIC VENUE and other AQUATIC VENUES that share the same RECIRCULATION SYSTEM.

6.5.2.2 Physical Removal Contaminating material shall be removed *(e.g., using a net, scoop, or bucket)* and disposed of in a sanitary manner.

6.5.2.2.1 Clean / Disinfect Net or Scoop Fecal or vomit contamination of the item used to remove the contamination *(e.g., the net or bucket)* shall be removed by thorough cleaning followed by DISINFECTION *(e.g., after cleaning, leave the net, scoop, or bucket immersed in the POOL during the DISINFECTION procedure prescribed for formed-stool, diarrheal-stool, or vomit contamination, as appropriate)*.

6.5.2.2.2[A] No Vacuum Cleaners 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.

6.5.2.3[A] Treated AQUATIC VENUE water that has been contaminated by feces or vomit shall be treated as follows:

1) Check to ensure that the water's pH is 7.5 or lower and adjust if necessary;
2) Verify and maintain water temperature at 77°F *(25°C)* or higher, except for AQUATIC VENUES without heaters;

3) Operate the filtration/RECIRCULATION SYSTEM while the POOL reaches and maintains the proper DPD-FC concentration during the remediation process;
4) Test the FREE CHLORINE RESIDUAL at multiple sampling points to ensure the proper DPD-FC concentration is achieved throughout the POOL for the entire DISINFECTION time; and
5) Use only non-stabilized CHLORINE products to raise the DPD-FC concentrations during the remediation.

6.5.3 Aquatic Venue Water Contamination Disinfection

6.5.3.1[A] Formed-Stool Contamination Formed-stool contaminated water shall have the DPD-FC concentration checked and the DPD-FC concentration raised to 2.0 ppm (*mg/L*) *(if less than 2.0 ppm [mg/L])* and maintained for at least 25 minutes *(or an equivalent time and concentration to reach the CT INACTIVATION VALUE)* before reopening the AQUATIC VENUE.

6.5.3.1.1[A] Pools Containing Chlorine Stabilizers In AQUATIC VENUE water that contains CYA or a stabilized CHLORINE product, water shall be treated by doubling the inactivation time required under 6.5.3.1.

6.5.3.1.2 Measurement of Inactivation Time Measurement of the inactivation time required shall start when the AQUATIC VENUE reaches the intended DPD-FC concentration.

6.5.3.2[A] Diarrheal-Stool Contamination Diarrheal-stool contaminated water shall:

1) Check the DPD-FC concentration and then raise the DPD-FC concentration to 20.0 ppm (*mg/L*) and maintain for at least 12.75 hours (*or an equivalent time and concentration to reach the CT INACTIVATION VALUE*) before reopening the AQUATIC VENUE or
2) Circulate the water through a SECONDARY TREATMENT to theoretically reduce the number of *Cryptosporidium* OOCYSTS in the AQUATIC VENUE below one OOCYST/100 mL as outlined in 4.7.3.3.2.4.

6.5.3.2.1[A] Pools Containing Chlorine Stabilizers In AQUATIC VENUE water that contains CYA or a stabilized CHLORINE product, water shall be treated by:

1) HYPERCHLORINATION accomplished by:
   a. Following the preparatory guidance outlined in 6.5.2.3;
   b. Lowering the CYA concentration to less than or equal to 15 ppm (*mg/L*) by draining, if necessary;
   c. Raising the DPD-FC concentration to 20 ppm (*mg/L*) for at least 28 hours; 30 ppm (*mg/L*) for at least 18 hours; or 40 ppm (*mg/L*) for at least 8.5 hours, which is needed to reach the CT INACTIVATION VALUE; and
   d. Measuring the inactivation time required, which shall start when the AQUATIC VENUE reaches the intended DPD-FC concentration or;
2) Circulating the water through a SECONDARY TREATMENT to theoretically reduce the number of *Cryptosporidium* OOCYSTS in the AQUATIC VENUE below one OOCYST/100 mL as outlined in 4.7.3.3.2.4 or;
3) Draining the AQUATIC VENUE completely.

6.5.3.3[A] Vomit-Contamination Vomit-contaminated water shall have the DPD-FC concentration checked and the DPD-FC concentration raised to 2.0 ppm (*mg/L*) *(if less than 2.0 mg/L)* and maintained for at least 25 minutes (*or an equivalent time and concentration to reach the CT INACTIVATION VALUE*) before reopening the AQUATIC VENUE.

6.5.3.3.1 Pools Containing Chlorine Stabilizers In AQUATIC VENUE water that contains CYA or a stabilized CHLORINE product, water shall be treated by doubling the inactivation time required under 6.5.3.3.

6.5.3.3.2 Measurement of the Inactivation Time Measurement of the inactivation time required shall start when the AQUATIC VENUE reaches the intended DPD-FC concentration.

6.5.3.4[A] Blood-Contamination Blood contamination of a properly maintained AQUATIC VENUE'S water does not pose a public health risk to swimmers.

6.5.3.4.1 Operators Choose Treatment Method Operators may choose whether or not to close the AQUATIC VENUE and treat as a formed stool contamination as in 6.5.3.1 to satisfy PATRON concerns.

6.5.3.5[A] Procedures for Brominated Pools Formed-stool, diarrheal-stool, or vomit-contaminated water in a brominated AQUATIC VENUE shall have CHLORINE added to the AQUATIC VENUE in an amount that will increase the DPD-FC concentration to the level specified for the specific type of contamination for the specified time.

6.5.3.5.1 Bromine Residual The bromine residual shall be adjusted, if necessary, before reopening the AQUATIC VENUE.

6.5.3.6[A] *Legionella* Contamination

6.5.3.6.1 Remediation and Testing For remediation and testing of AQUATIC VENUES suspected of being contaminated with *Legionella* the QUALIFIED OPERATOR shall:

1) Close the SPA to BATHERS immediately, shut down the hydrotherapy jet system and circulation pumps, but do not drain the water.
2) Contact the AHJ for information about laboratory testing for *Legionella*. If the AHJ determines that laboratory testing is needed, they will take water and biofilm samples from the SPA tub, hydrotherapy jets, drain, and filters/filter media to test for *Legionella* before taking the steps below.
3) Proceed as directed below, or according to AHJ guidance, after samples have been taken. The SPA should not be reopened to BATHERS until all test results are negative for *Legionella*.
4) Scrub vigorously all SPA surfaces, skimming devices, circulation components with DPD-FC at a minimum concentration of 5 ppm (*mg/L*) to remove any biofilm or slime. After scrubbing, rinse the SPA with clean water and flush to waste.
5) Drain all water from the SPA. Dispose of the water to waste or as directed by the local regulatory authority.
6) Replace filters (for cartridge or DE filters) or filter media (for sand filters). Bag these filters and dispose as normal solid waste.
7) Inspect the SPA thoroughly for any broken or poorly functioning components such as valves, sensors, tubing, or disinfectant feeders. Make any needed repairs.
8) Refill the SPA with clean water.
9) Hyperchlorinate using 20 ppm (*mg/L*) DPD-FC. a.) Keep the hydrotherapy jet system off and let the hyperchlorinated water circulate for 1 hour in all of the components of the SPA including the compensation/surge tank, filter housing, and piping. b.) Turn on the hydrotherapy jet system to circulate the hyperchlorinated water for 9 additional hours. Ensure that 20 ppm (*mg/L*) of DPD-FC is maintained in the system for the entire 10 hours.
10) Flush the entire system to remove the hyperchlorinated water from all equipment prior to repeat sampling.
11) Take repeat samples for culture-based laboratory testing to confirm that *Legionella* has been eliminated. Water and biofilm samples should be taken from the SPA tub, hydrotherapy jet system, drain, filters/filter media, and any part of the SPA that originally tested positive for *Legionella*.
12) Keep the SPA closed to BATHERS until this repeat testing has confirmed the elimination of *Legionella*. If laboratory testing is positive for *Legionella*, repeat steps 4–11 until all testing is negative for *Legionella*. When all tests are negative, the SPA can be reopened to BATHERS.
13) Ensure that halogen (CHLORINE or bromine) concentration and pH meet applicable local, state, territorial, federal, and tribal laws before reopening the SPA to BATHERS. Maintain water quality according to local, state, territorial, federal, and tribal laws.
14) If the SPA is associated with an outbreak, the following continued laboratory testing schedule shall be conducted: conduct culture-based testing every 2 weeks for 3 months, then every month for 3 months to ensure complete elimination of *Legionella*. If at any time during this laboratory testing schedule *Legionella* is found, disinfect again and start the testing schedule over. For AQUATIC VENUES that continue to grow *Legionella*, consider hiring a consultant with expertise in *Legionella.*

6.5.4 Surface Contamination Cleaning and Disinfection

6.5.4.1[A] Limit Access 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.

6.5.4.2[A] Clean Surface 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.

6.5.4.3[A] Contaminant Removal and Disposal CONTAMINANT removed by cleaning shall be disposed of in a sanitary manner or as required by law.

6.5.4.4[A] Disinfect Surface Contaminated surfaces shall be disinfected with one of the following DISINFECTION solutions:

1) A 1:10 dilution of fresh household bleach with water, or
2) An equivalent EPA–REGISTERED disinfectant that has been approved for body fluids DISINFECTION.

6.5.4.5 Soak 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.

6.5.4.6 Remove Disinfectant shall be removed by cleaning and shall be disposed of in a sanitary manner or as required by the AHJ.

6.6 AHJ Inspections

6.6.1[A] Inspection Process

6.6.1.1 Inspection Authority The AHJ shall have the right to inspect or investigate the operation and management of an AQUATIC FACILITY.

6.6.1.2 Inspection Scope and Right Upon presenting proper identification, an authorized employee or agent of the AHJ shall have the right to and be permitted to enter any AQUATIC FACILITY or AQUATIC VENUE area, including the recirculation equipment and piping area, at any reasonable time for the purpose of inspecting the AQUATIC VENUE or AQUATIC FEATURES to do any of the following:

1) Inspect, investigate, or evaluate for compliance with this CODE;
2) Verify compliance with previously written violations;
3) Collect samples or specimens;
4) Examine, review, and copy relevant documents and records;
5) Obtain photographic or other evidence needed to enforce this CODE; or
6) Question any person.

6.6.1.3 Based on Risk [Deleted]

6.6.1.4 Inspection Interference It is a violation of this CODE for a person to interfere with, deny, or delay an inspection or investigation conducted by the AHJ.

6.6.2 Publication of Inspection Forms

6.6.2.1 Inspection Form Publication The AHJ may publish or post on the web or other source the reports of AQUATIC FACILITY inspections.

6.6.3 Imminent Health Hazards

6.6.3.1[A] Violations Requiring Immediate Correction or Closure The AHJ shall have the right to order immediate correction or order immediate POOL closure for any of the following IMMINENT HEALTH HAZARDS violations:

1) Failure to provide supervision and staffing of the AQUATIC FACILITY as prescribed in 6.3.4.1;
2) Failure to provide the minimum or exceeding the maximum disinfectant residual concentrations listed in 5.7.3.1;
3) AQUATIC VENUES using CHLORINE STABILIZERS where the CYA:DPD-FC ratio exceeds 45:1 or when CYA levels exceed 150 ppm.
4) pH below 7.0;
5) pH above 7.8;
6) Failure to continuously operate the AQUATIC VENUE filtration and DISINFECTION equipment when open for use;
7) Use of an unapproved or contaminated water supply source for potable water use;

8) Unprotected overhead electrical wires within 20 feet horizontally of the AQUATIC VENUE;
9) Non GFCI protected electrical receptacles within 20 feet of the inside wall of the AQUATIC VENUE or the presence of bare electrical wires and other electrical deficiencies;
5.7.2.2.4.1.2
11) Absence of all required lifesaving equipment on DECK;
12) AQUATIC VENUE bottom not visible;
13) Total absence of or improper depth markings at an AQUATIC VENUE;
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;
15) Failure to provide and maintain an ENCLOSURE to prevent unauthorized access to the AQUATIC FACILITY or AQUATIC VENUE when required;
16) Use of unapproved chemicals or the application of chemicals by unapproved methods to the AQUATIC VENUE water;
17) Broken, unsecured, or missing main drain grate or any submerged suction outlet grate in the AQUATIC VENUE;
18) Number of bathers/patrons exceeds the MAXIMUM BATHER LOAD;
19) Broken glass or sharp objects in AQUATIC VENUE or on DECK area; or
20) Any other item determined to be a public health hazard by the AHJ.

6.6.3.1.1 Low pH Violations If pH testing equipment does not measure below 7.0, pH must be at or below the lowest value of the test equipment.

6.6.3.1.2 High pH Violations If pH testing equipment does not measure above 7.8, pH must be at or above the highest value of the test equipment.

6.6.3.2 Required Closing An AQUATIC FACILITY owner, QUALIFIED OPERATOR, or RESPONSIBLE SUPERVISOR of an AQUATIC FACILITY or AHJ shall close an AQUATIC VENUE for any of the IMMINENT HEALTH HAZARDS in 6.6.3.1.

6.6.4 Enforcement [Deleted]

7.0 Special Venues [Deleted]

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OAR 333-062-0000 AQUATIC FACILITIES – OPERATION AND POLICIES

333-062-1005 Licensing

No person shall operate an AQUATIC VENUE, without:
(1) The AQUATIC VENUE having received a final construction inspection and approval from the AUTHORITY;
(2) Making application for a license to operate;
(3) Paying the license fee; and
(4) Securing a license from the AUTHORITY.
(5) Such license terminates and is renewable on December 31 of each year.

333-062-1010 Conditional Licenses

The AUTHORITY may issue conditional licenses in circumstances in which:
(1) There is substantial compliance with these rules;
(2) In which a written schedule for total compliance approved by the AUTHORITY is instituted and maintained; and
(3) Where in the judgment of the AUTHORITY, there will be no immediate threat to health and safety during the time in which to meet complete compliance. The AUTHORITY may also require special safeguards to be instituted and maintained as a condition of the conditional license.

333-062-1015 Maintenance and Modification

(1) All equipment of AQUATIC FACILITIES AND AQUATIC VENUES shall be operational and shall be kept in good repair. Such equipment shall be maintained in conformance with the original design or better.
(2) The structural components of all AQUATIC FACILITIES AND AQUATIC VENUES shall be maintained in good repair.

333-062-1020 Enforcement

(1) The AQUATIC VENUE license holder, operator, or responsible supervisor must permit the AUTHORITY to enter any AQUATIC VENUE, whenever the AQUATIC VENUE is open, or at any other reasonable time for the purpose of inspecting the AQUATIC VENUE OR FACILITY. The inspection may include, but is not limited to, the BATHHOUSE or HYGIENE FACILITIES, chemical storage, ENCLOSURE and security provisions, recirculation equipment, piping, ventilation, supervision areas, operations, AQUATIC VENUE records and files, to determine compliance with these rules.
(2) If upon inspection of an AQUATIC VENUE, the AUTHORITY finds that the AQUATIC VENUE is not designed, constructed, equipped, maintained or operated as required by these rules, or is found to be insanitary, unclean or dangerous to public health or safety, the AUTHORITY must notify the license holder, operator, or responsible supervisor in writing of the violations. The inspection report must specify the changes required to make the AQUATIC VENUE and its operation conform to the standards established in these rules and the time period within which to comply. If the violations pose an immediate danger to the public's health, the AUTHORITY may take action to close the AQUATIC VENUE in accordance with 333-062-1025 prior to notifying the license holder, operator, or responsible supervisor in writing of the violations.
(3) If the license holder does not correct the violations listed in the notice issued under section (2) within the specified time period, the AUTHORITY may issue a notice proposing to suspend or revoke the license to operate the AQUATIC VENUE in accordance with ORS chapter 183. A license holder shall have 21 days to request a hearing.

333-062-1025 Closure Criteria

(1) If one or more of the conditions outlined in subpart 6.6.3 is present at the AQUATIC VENUE or AQUATIC FACILITY, the AQUATIC VENUE license holder, operator or responsible supervisor must immediately close the AQUATIC VENUE until the situation is resolved.
(2) If an AQUATIC VENUE license holder, operator or responsible supervisor has not acted in accordance with section (1) of this rule, the AUTHORITY may issue an emergency suspension order and close an AQUATIC VENUE in accordance with ORS 183.430(2).