

TITLE 25                   HEALTH SERVICES  
PART 1                     DEPARTMENT OF STATE HEALTH SERVICES  
CHAPTER 265            GENERAL SANITATION  
SUBCHAPTER K         ARTIFICIAL SWIMMING LAGOONS

§265.151. General Provisions.

(a) Scope and purpose. This subchapter addresses minimum standards for the design and construction of artificial swimming lagoons. The rules in this subchapter establish minimum operating standards for artificial swimming lagoons to ensure proper filtration, chemical balance, and maintenance of the water for the safety of users, and to reduce to a practical minimum the possibility of drowning or injury to users. This subchapter implements Texas Health and Safety Code, §341.064(g) authorized by Texas Health and Safety Code, §341.002, and the rules are considered good public health engineering practices.

(b) Application of the rules. This subchapter applies to all artificial swimming lagoons, regardless of the date of construction, unless otherwise specified.

(c) Date of construction. The date of construction of the artificial swimming lagoon is the date that a building permit for construction is issued or, if no building permit is required, the date that excavation or electrical service begins, whichever is earlier, in which case the artificial swimming lagoon owner or operator must produce adequate written documentation of that fact.

(d) Local regulatory authority. A local regulatory authority that has jurisdiction for the regulation of the artificial swimming lagoon may adopt standards equivalent to or more stringent than this subchapter, with the exception of a department-approved alternate method of disinfectant, that are in accordance with good public health engineering and safety practices.

(e) Effective date. The effective date of this subchapter is March 1, 2020.

§265.152. Definitions.

The following words and terms, when used in this subchapter, have the following meanings, unless the context clearly indicates otherwise.

(1) AED--Automated External Defibrillator. A device that automatically diagnoses the life-threatening cardiac arrhythmias of ventricular fibrillation and pulseless ventricular tachycardia, and is able to treat those conditions by application of electricity which stops the arrhythmia, allowing the heart to re-establish an effective rhythm.

(2) Alternative communication system--Devices that alert multiple on-site staff when activated, such as pager systems, radios, or walkie-talkie communication systems. Used to notify either on-site emergency medical services (EMS), on-site

medical staff, or on-site certified staff such as lifeguards, or a commercial emergency monitoring service.

(3) Alternative method of disinfectant--A method of disinfection required to be approved by the department.

(4) ANSI--American National Standards Institute.

(5) APSP--Association of Pool and Spa Professionals.

(6) ARC--American Red Cross.

(7) Artificial swimming lagoon (lagoon)--An artificial body of water used for recreational purposes with more than 20,000 square feet of surface area, an artificial liner, and a method of disinfectant. The term does not include a body of water open to the public that continuously recirculates water from a spring or a pool. The term "lagoon" used in this subchapter means "artificial swimming lagoon."

(8) Artificial swimming lagoon yard--An area that has an enclosure that contains the lagoon.

(9) ASME--American Society of Mechanical Engineers.

(10) ASPSA--American Swimming Pool and Spa Association.

(11) Australian standard AS 4663-2013--A method to measure the slip resistance of pedestrian surfaces.

(12) Backflow prevention device--A device designed to prevent a physical connection between a potable water system and a non-potable source such as the lagoon, or a physical connection between the lagoon and a sanitary sewer or wastewater disposal system.

(13) Bonded--Permanent joining of metallic parts to form an electrically conductive path that ensures electrical continuity and the capacity to conduct safely any current likely to be imposed to minimize the risk of electrocution.

(14) Broken stripe--A horizontal stripe that is at least 1-inch wide with uniform breaks in the stripe, with the breaks totaling not more than 75% of the length of the stripe and stripe breaks.

(15) BVM--Bag-Valve Mask. A handheld device used to provide positive pressure ventilation to persons who are not breathing adequately. Also known by its proprietary name, Ambu bag.

(16) Chemical feeder--A mechanical or electronic device for applying chemicals into the lagoon.

(17) Circulation equipment--Mechanical components that are part of a circulation system on the lagoon. Circulation equipment includes pumps, hair and lint strainers, filters, valves, gauges, meters, heaters, surface skimmers, inlet/outlet fittings, and chemical feeding devices.

(18) Cross-connection control device--A device that is designed to prevent a physical connection between a potable water system and a non-potable source such as the lagoon, or a physical connection between the lagoon and a sanitary sewer or wastewater disposal system. (See paragraph (12) of this section "Backflow prevention device.")

(19) DCOF--Dynamic coefficient of friction. A measurement of frictional resistance of a surface one pushes against when already in motion.

(20) DCOF AcuTest--A test used to evaluate the slip resistance or DCOF of a tile surface under known conditions using a standardized sensor prepared according to a specific protocol.

(21) Deck--An area immediately adjacent to or attached to the lagoon that is specifically constructed or installed for sitting, standing, or walking and may include the coping. The term does not include a sandy beach area adjacent to a zero-entry access area.

(22) Deep area--A water level in the lagoon that is over five feet in depth.

(23) Department--The Texas Department of State Health Services.

(24) Depth--Vertical distance measured at three feet from the lagoon wall or barrier from the bottom of the lagoon to the design water level.

(25) Design water level--

(A) For a skimmer system, the midpoint of the operating range of the skimmers.

(B) For a gutter or overflow system, the top of the overflow rim of the gutter or overflow system.

(26) Disinfectant--Energy, chemicals, or a combination of both used to kill undesirable or pathogenic (disease causing) organisms and having a measurable residual or level adequate to make the desired kill.

(27) Diving board--A recreational mechanism for entering the lagoon, consisting of a semi-rigid board that derives its elasticity through the use of a fulcrum mounted below the board.

(28) DPD--A chemical testing reagent (N, N-Diethyl-P-Phenylenediamine). It is used to measure the levels of free chlorine or bromine in water by yielding a series of colors ranging from light pink to dark red.

(29) Facility--The lagoon, and restrooms, dressing rooms, equipment rooms, decks or walkways, beach entries, enclosure and other appurtenances directly serving the lagoon.

(30) Filter--A device that removes undissolved particles from water by recirculating the water through a porous substance (filter media or element).

(31) Filter media--A finely graded material (for example, sand, diatomaceous earth, polyester fabric, or anthracite) that removes filterable particles from the water.

(32) FINA--Fédération Internationale de Natation. The organization that administers international competition in aquatic sports.

(33) Licensed engineer--A person licensed to engage in the practice of engineering in the State of Texas in accordance with the Texas Engineering Practice Act, Texas Occupations Code, Chapter 1001, and related rules.

(34) Licensed master electrician--An individual, licensed as a master electrician, who on behalf of an electrical contractor, electrical sign contractor, or employing governmental entity, performs electrical work in accordance with the Texas Electrical Safety and Licensing Act, Texas Occupations Code, Chapter 1305, and related rules.

(35) Lifeguard--An expert swimmer who supervises the safety and rescue of swimmers, surfers, and other water sports participants and who has successfully completed and holds a current ARC certificate or the equivalent certification from and an aquatic safety organization, which includes training in cardiopulmonary resuscitation for adults, infants, and children, use of an AED, use of a BVM, and first aid.

(36) Local regulatory authority--A county, municipality, or other political subdivision of the state.

(37) Motorboat--Any vessel propelled or designed to be propelled by machinery, whether or not the machinery is permanently or temporarily affixed or is the principal source of propulsion. (See paragraph (64) of this section "Vessel.")

(38) Non-swimming area--A section of a lagoon used by vessels or motorboats, or for other aquatic activities such as surfing and wakeboarding.

(39) NSF--NSF International.

(40) NSF 50 or NSF/ANSI Standard 50--Standard establishing minimum requirements for materials, design, construction, and performance of equipment commonly included in the water circulation systems of residential and public swimming pools, spas, or hot tubs.

(41) NSF 60 or NSF/ANSI Standard 60--Standard covering drinking water treatment chemicals and establishing criteria for promoting sanitation and protection of public health in relation to drinking water.

(42) ORP--Oxidation Reduction Potential. The potential level of oxidation-reduction produced by strong oxidizing (sanitizing) agents in a water solution. Oxidation level is measured in millivolts by an ORP meter.

(43) Overflow system--Overflows, surface skimmers, and surface water collection systems of various design and manufacture for removal of surface water from the lagoon.

(44) pH--A value expressing the relative acidic or basic tendencies of a substance such as water on a scale from 0 to 14 with 7.0 being neutral, values less than 7.0 being acidic, and values greater than 7.0 being basic.

(45) PHTA--Pool and Hot Tub Alliance, formally APSP and National Swimming Pool Foundation.

(46) Pump--A mechanical device that causes hydraulic flow and pressure for filtration, heating, and circulation of the water in the lagoon.

(47) Regulatory authority--A federal or state agency or a local regulatory authority.

(48) Rescue tube--A piece of lifesaving equipment that is an essential part of the equipment that must be carried by lifeguards and that is used to make water rescue easier by helping help support the victim's and rescuer's weight.

(49) Return inlet or inlet--Aperture or fitting through which the water under positive pressure returns into the lagoon.

(50) Ring buoy--A ring-shaped floating buoy capable of supporting a user.

(51) Rope and float line--A continuous line that is not less than 1/4-inch in diameter and that is supported by buoys and attached to sides of the lagoon to separate swimming areas from non-swimming areas of the lagoon.

(52) Secchi disk--An eight-inch diameter disk with alternating black and white quadrants that is lowered in the water column and is used to measure water turbidity and clarity.

(53) Self-closing and self-latching device--A mechanism on a gate that enables a gate to automatically fully close and latch without human or electrical power.

(54) Service animal--A canine that is specially trained or equipped to help a person with a disability and that is used by a person with a disability in accordance with the Texas Human Resources Code, Chapter 121. An animal of any other species, whether wild or domestic, trained or untrained, is not considered a service animal.

(55) Slide--A recreational feature with a flow of water and an inclined flume or channel by which a rider is conveyed downward into the lagoon.

(56) Slip resistant--A surface that has been treated or constructed to significantly reduce the chance of slipping.

(57) Steps, recessed steps, ladders, and recessed treads--A lagoon entry and exit that may be used separately or in conjunction with one another.

(58) Suction outlet--A fitting, fitting assembly, cover or grate, and related components that provide a localized low-pressure area for the transfer of water from the lagoon.

(59) Surf lagoon--A lagoon in which waves are generated and 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 lagoons.

(60) Swimming area--A section of a lagoon used for swimming, wading, or other activities involving contact with or immersion in water.

(61) TCEQ--Texas Commission on Environmental Quality.

(62) UL--An independent testing laboratory (formerly Underwriters Laboratories).

(63) User load--The number of persons in the swimming areas of the lagoon at any given moment or during any stated period of time.

(64) Vessel--Any watercraft, including surfboards, paddleboards, and wakeboards, other than a seaplane on water, used or capable of being used for transportation on water. (See paragraph (37) of this section "Motorboat.")

(65) VGBA--The Virginia Graeme Baker Pool and Spa Safety Act. A federal law that requires all public pools and spas to be fitted with suction outlets that meet the ASME/ANSI A112.19.8 standard.

(66) Wading only areas--Wading only areas of the lagoon that are intended for use by non-swimmers or for non-swimming activities.

(67) Wastewater disposal system--A plumbing system used to dispose of backwash or other water from the lagoon or from dressing rooms and other facilities associated with the lagoon.

(68) Water lounge or shelf--A horizontal area of the lagoon that adjoins the lagoon wall at a depth of 2 inches to 10 inches and is used for seating and play.

#### §265.153. Plans, Permits, and Instructions.

(a) Licensed Engineer required. Lagoons constructed on or after the effective date of this subchapter shall be planned and designed by a licensed engineer. The licensed engineer shall provide necessary observation of construction work to certify that the project was completed in accordance with engineering documents.

(b) Plans and permits. The department may review plans for the lagoon to ensure compliance with the rules in this subchapter. The lagoon shall comply with any regulatory authority permit requirements. Regardless of whether a regulatory authority requires plans or permits, the lagoon shall be designed, constructed, and operated in compliance with this subchapter.

(c) Operational instructions. Upon completion of construction, the owner shall obtain complete written operational instructions for the lagoon that include procedures for filtration, backwash, cleaning, operation of all chemical feed devices, and general maintenance. In addition, the builder shall label all valves and exposed piping, including normal operating pressures and pressure differential that indicate the need for cleaning.

#### §265.154. General Construction and Design.

(a) Non-toxic and sound materials. Lagoons and all appurtenances shall be constructed of materials that:

- (1) are nontoxic to humans and the environment;
- (2) are impervious and enduring;
- (3) will withstand design stresses; and

(4) will provide a watertight structure with a smooth, easily cleanable surface without cracks or joints that are not watertight and easily cleanable.

(b) NSF 50. For lagoons constructed on or after the effective date of this subchapter, pumps, filters, skimmers, chemical feeders, and other equipment that falls within NSF/ANSI Standard 50 shall meet the standard as confirmed by a testing laboratory. Conformity with the NSF 50 shall be evidenced by the listing or labeling of such equipment by such a laboratory or by separate documentation.

(c) Prohibition of earth material.

(1) Earth shall not be permitted as an interior finish in the lagoon. Clean sand or similar material if used in a beach environment:

(A) shall only be used over an impervious surface;

(B) shall be designed to perform in such an environment; and

(C) shall be controlled so as not to adversely affect the proper circulation, filtration, treatment system, maintenance, safety, sanitation, and operation of the lagoon.

(2) If sand or similar material is used in the lagoon, positive upflow circulation through the sand or other systems shall be provided as necessary to ensure that sanitary conditions are maintained at all times.

(d) Interior color. The color of the interior of the lagoon shall be white or a light enough color so that objects and users in the water shall be easily seen. The finish shall be at least 6.5 on the Munsell color value scale. An eight-inch black disk or a Secchi disk at the deepest point of the floor in a swimming area of the lagoon shall be clearly and immediately seen by an observer.

(e) Materials to withstand freezing temperatures. The lagoon liner or shell and appurtenances, piping, filter system, pump and motor, and other components shall be designed and constructed to facilitate protection from damage due to freezing.

(f) Surface water. The lagoon shall be designed such that surface water does not enter the lagoon.

(g) Interior surface footing. The surfaces within the lagoon intended to provide footing for users shall be slip-resistant to help reduce the chance for a fall. The roughness or irregularity of such surfaces shall not cause injury to feet during normal use.

(h) General shape. This subchapter is not intended to regulate the perimeter shape of the lagoon. It is the responsibility of the licensed engineer to take into account the effect a given shape of the lagoon will have on the health and safety of the users.

(i) Entanglement or entrapment avoidance. There shall be no protrusions, extensions, means of entanglement, or other obstructions in the lagoon that are likely to cause entrapment or injury of the user.

(j) Maximum users in swimming areas. Maximum user loading in a swimming area shall comply with the following:



(1) In an area of water depth 4 feet or less, the user load shall not exceed one user per 15 square feet of water surface.

(2) In an area of water depth greater than 4 feet, the user load shall not exceed one user per 25 square feet of water surface.

(3) The owner or operator shall be responsible for restricting usage so that the maximum capacity is not exceeded.

(k) Maximum users in non-swimming areas. The owner or operator shall determine the maximum user loading in a non-swimming area by considering the type of use in the non-swimming area and the presence of motorboats and vessels and shall post signs indicating the maximum number of users.

(l) Floor slopes. For the lagoon constructed on or after the effective date of this subchapter, floor slope in a swimming area shall comply with the following:

(1) For depths up to five feet, the slope shall be uniform and not exceed 1:10.

(2) For depths over five feet, the slope shall be uniform and not exceed 1:3.

(3) The slope may vary in limited areas where access for persons with disabilities has been provided.

(m) Underwater seat benches. An underwater seat bench shall:

(1) be constructed with slip-resistant materials;

(2) have a maximum seating width of 18 inches projecting from the wall at a depth not to exceed 20 inches below the design water level;

(3) be located fully outside of the required minimum diving water envelope if the lagoon is used for diving;

(4) be visually set apart and provided with a solid or broken stripe at least 1-inch wide on the top surface along the front leading edge of the bench; and

(A) the stripe shall be plainly visible to persons on the ground above the bench; and

(B) the stripe shall be a contrasting color to the background on which it is applied, and the color shall be permanent; and

(5) not be used as a required entry or exit access unless used in conjunction with steps.

(n) Water lounges. A water lounge shall:

(1) be a minimum of 20 inches wide and provide a minimum of 10 square feet of horizontal surface adjoining on the edge of the lagoon over a distance of not less than 3 feet;

(2) be horizontal and at a depth of 2 inches to 10 inches below the water surface;

(3) be visually set apart with a horizontal solid or broken stripe at least 1-inch wide on the top surface along the leading edge of horizontal surfaces of all edges not adjoining the lagoon wall; and

(A) the stripe shall be plainly visible to persons on the deck; and

(B) the stripe shall be contrasting color to the background on which it is applied, and the color shall be permanent;

(4) be located fully outside of the required minimum diving water envelope if the lagoon is intended for use with diving equipment;

(5) have a slip-resistant surface; and

(6) be located in water depth of 4 feet or less.

(o) Construction tolerances. For lagoons constructed on or after the effective date of this subchapter, construction tolerances shall be in accordance with the construction plan submitted by the licensed engineer.

#### §265.155. Decks, Entrances and Exits, Diving Facilities, Slides, and Other Aquatic Play Features.

(a) Access. Entrances and exits, including hand and grab rails, walkways, and docks, shall comply with applicable requirements for access to recreation facilities and the elements for persons with disabilities under federal, state, and local fair housing and disability access laws.

(b) Decks for lagoons. The following is required where decks are provided for lagoons:

(1) Each deck shall be at least five feet wide.

(2) A deck shall be provided at each entry or exit into the swimming areas.

(3) An unobstructed deck area at least four feet wide shall be provided for access around:

(A) diving equipment;

- (B) special feature stairways, such as for a waterslide;
- (C) lifeguard stands;
- (D) diving boards;
- (E) similar deck equipment; and
- (F) structural columns.

(4) In a swimming area or in a surf lagoon where perimeter deck is non-contiguous and the clearance is not at least four feet, locations for lifeguards to safely access the edge of the lagoon are required.

(5) A deck shall slope away from the lagoon so that water drains into deck drains or to perimeter areas.

(6) A deck drain shall not drain to the lagoon, lagoon gutter, or recirculation systems.

(7) Loose plant material or bedding shall not be permitted within a perimeter deck.

(8) Carpet, wood, and artificial turf are prohibited as perimeter deck materials.

(9) Concrete that is used as a deck material shall be installed in accordance with the American Concrete Institute ACI Standard 302.1R-15, "Guide for Concrete Floor and Slab Construction" or in accordance with the requirements established by the licensed engineer, and in accordance with local building codes.

(10) All decks shall have slip resistant, textured finishes that have a minimum dynamic coefficient of friction at least equal to the requirements of ANSI A137.1-2012 for that installation as measured by the DCOF AcuTest or by the Australian Standard AS 4663-2013.

(11) Continuous watertight expansion joint material shall be provided between perimeter decks and lagoon coping.

(12) Open joints or gaps larger than 3/16-inch or vertical elevations exceeding 1/4-inch in the deck shall be corrected using appropriate fillers.

(c) Acceptable means of entry or exit. Acceptable means of entry or exit include stairs, recessed steps, ladders, ramps, swimouts, lifts, and beach (zero-depth) entry or exit. Access to a surf lagoon shall be at the shallow or beach entry end with the exception of an allowable Americans with Disabilities Act (ADA) designated entry point.

(d) Number of entry or exit points. A minimum of two entry or exit points are required in each swimming area. A single set of entry or exit steps or a single beach entry extending a minimum of 75% around the perimeter of the swimming area meets the minimum entry or exit requirements.

(e) Beach entry slope. Beach entry slopes shall not exceed 1:10.

(f) Slip resistant surfaces. Steps, ladders, and recessed treads shall have slip resistant surfaces.

(g) Steps. For a lagoon constructed on or after the effective date of this subchapter, steps shall comply with the following:

(1) Steps shall conform with the most recent edition of the Centers for Disease Control and Prevention Model Aquatic Health Code (MAHC) in MAHC Sections 4.5.4.5, MAHC Table 4.5.4.5, MAHC Figure 4.5.4.5.1, Figure 4.5.4.5.2, and Figure 4.5.4.5.2.

(2) The bottom riser height may be allowed to taper to zero.

(3) Underwater steps shall be provided with a horizontal solid or broken stripe at least one-inch wide on the top surface along the front leading edge of each step. This stripe shall be plainly visible to persons standing above the steps. The stripe shall be a contrasting color to the background on which it is applied, and the color shall be permanent in nature and shall be a slip resistant surface.

(h) Handrails. A lagoon shall comply with applicable federal, state, and local requirements for access by persons with disabilities.

(1) Handrails, if removable, shall be installed in such a way that they cannot be removed without the use of tools.

(2) Handrails shall be provided for each set of stairs provided in a lagoon constructed on or after the effective date of this subchapter and shall be constructed of corrosion-resistant materials, bonded in accordance with the National Electrical Code, and anchored securely.

(3) The upper railing surface of handrails shall extend above the deck or at the interface of the water and beach.

(4) Dimensions of handrails not for use by persons with disabilities shall conform to requirements in the most current edition of the Centers for Disease Control and Prevention Model Aquatic Health Code (MAHC) in MAHC Table 4.5.5.7 and MAHC Figure 4.5.5.7.1.

(i) Floating platforms.

(1) A floating swim platform or floating dive platform shall:

(A) be constructed of a non-slip and splinter-resistant material that can be easily cleaned;

(B) have at least one ladder with handles and steps that extend at least 30 inches below water level;

(C) be anchored or secured to keep it in its designated area if a floating platform; and

(D) minimize the risk of entrapment by being be constructed with:

either (i) all braces and struts designed to prevent entrapment of users; and

(ii) a visible minimum 12-inch air space under maximum load; or

(iii) a smooth solid bottom that extends at least 2 feet below the water.

(2) A floating platform with a perimeter greater than 75 feet shall have a minimum of two ladders with handles and steps that extend at least 30 inches below the water level.

(3) A floating dive platform less than 20 inches above the water level shall have a minimum of 9 feet of water depth for 16 feet horizontal distance beyond the diving platform.

(4) A floating dive platform greater than 20 inches above the water level shall be designed and constructed according to minimum dimensions specified by the FINA Facilities Rules, 2017–2021.

(j) Slides and other aquatic play features.

(1) A slide or other aquatic play feature, such as a climbing wall, floating amusement island, or zip line, shall be installed according to manufacturer's instructions or in accordance with the licensed engineer's specifications.

(2) An aquatic play feature that meets the definition of "Amusement Ride" in Texas Occupations Code, Chapter 2151 (the Amusement Ride Safety Inspection and Insurance Act) shall comply with that chapter.

(3) A feature that meets the definition of a "slide" in the Consumer Product Safety Commission's Standard for Swimming Pool Slides as published in Title 16 Code of Federal Regulations, Part 1207, shall comply with those standards.

(k) Diving platforms or boards. A diving platform or diving board shall be designed and constructed according to standards specified by the FINA Rules, 2017-2021.

#### §265.156. General Requirements for Circulation Systems.

(a) Licensed Engineer. The circulation system of a lagoon constructed on or after the effective date of this subchapter shall be designed by a licensed engineer.

(b) Circulation. The circulation system shall provide complete and uniform circulation of the water necessary to maintain the water quality requirements in this subchapter, unless an alternate method of disinfectant has been approved by the department.

(c) Access for inspection or repair. Circulation system components shall be accessible for inspection, servicing, repair, or replacement and shall be installed in accordance with manufacturer's specifications.

(d) Non-toxic materials. The circulation system piping and fittings shall be non-toxic, and shall be of materials able to withstand operating pressures and conditions. Polyvinyl chloride pipe shall bear the NSF seal for potable water and be schedule 40 or stronger.

(e) Operation and maintenance instructions. Circulation system operation and maintenance instructions shall be provided to the operator of the lagoon. A copy of the instructions shall be kept in the building housing the circulation system.

(f) Gauges and meters. For a lagoon constructed on or after the effective date of this subchapter, the circulation system shall be equipped with:

(1) a filter inlet pressure gauge on each filter;

(2) a filter outlet gauge on each filter; and

(3) a flow meter installed according to manufacturer's instructions and located to show the rate of flow through each filter in gallons per minute and that is represented by the manufacturer to be accurate within 10% of the true flow rate.

(g) Labeling of exposed piping. Exposed piping shall be labeled to identify the piping function and direction of flow. The name of the liquid or gas and arrows indicating direction of flow shall be permanently indicated on the pipe in a legible manner through use of labeling, writing, or other means.

#### §265.157. Filters.

(a) NSF/ANSI standards. Filters shall be listed and labeled to NSF/ANSI Standard 50 or NSF/ANSI Standard 60, unless the lagoon was constructed before the effective date of this subchapter and it uses filters that are not replaced.

(b) Filters cleanable. For lagoons constructed on or after the effective date of this subchapter, filters shall be designed so that after cleaning according to manufacturer's instructions, the system provides the required water clarity.

(c) Observable waste discharge. For a lagoon constructed on or after the effective date of this subchapter, filters shall have a readily observable free fall or sight glass installed on the waste discharge line in order that the filter washing progress may be observed. Sight glasses shall be readily removable for cleaning.

(d) Filters accessible. Filters shall be installed so that filtration surfaces are accessible for inspection and service in accordance with manufacturer's instructions.

(e) Operation and maintenance instructions. Filters and separation tanks shall have operation and maintenance instructions permanently installed on the filter or separation tank. Maintenance instructions shall be unobstructed and clearly visible.

#### §265.158. General Requirements for Pumps and Motors.

(a) Safe pump operation. The installation of a pump and component parts shall provide safe operation in accordance with manufacturer's instructions.

(b) UL and NEMA requirements. A pump shall comply with UL or National Electrical Manufacturers Association requirements. Motors shall comply with UL requirements for motors and shall be constructed electrically and mechanically to perform satisfactorily and safely under the conditions of load and environment normally encountered in lagoon installations.

(c) Backflow prevention. A priming device for a pump receiving piped water from a public water supply providing potable water shall be isolated from the potable supply by means of a cross-connection control device (backflow prevention device) approved by the TCEQ or local regulatory authority.

(d) Backflow prevention assembly testing. A backflow prevention assembly shall be tested upon installation and certified to be operating within specifications by a licensed backflow prevention assembly tester. A backflow prevention assembly shall be tested and certified to be operating within specifications at least annually by a licensed backflow prevention assembly tester. Documentation of testing and certification shall be kept for at least three years and shall be provided during an inspection.

(e) Pumps and motors. A pump or motor provided for circulation of water shall meet the filter design range of flow required for filtering and cleaning the filters against the total dynamic head developed by the complete system and to meet required water clarity.

(f) Cleanable strainer or screen. For a lagoon constructed on or after the effective date of this subchapter, a pump, except a pump with a vacuum filter, shall have a

cleanable strainer or screen upstream of the circulation pump to remove waste that shall be readily accessible and cleaned as per manufacturer's instructions.

(g) Motors. A motor shall:

(1) be capable of operating the pump under full load with a voltage variation of plus or minus 10% from the nameplate rating;

(2) have thermal or current overload protection, either built in or in the line starter, to provide locked rotor and running protection; and

(3) comply with UL requirements.

(h) Emergency shutoff switch. An emergency shutoff switch shall be provided for service personnel to disconnect all power to circulation and jet system pumps. An emergency shut-off switch shall be readily accessible to operators and located within sight of the lagoon and not more than 50 feet from the lagoon.

§265.159. Suction Outlets, Gravity Flow Systems, and Return Inlets.

(a) Skimmer. For this section, a skimmer is not considered to be a suction outlet.

(b) Licensed Engineer. A suction outlet system, gravity flow system, or return system constructed on or after the effective date of this subchapter shall be planned and designed by a licensed engineer.

(c) Submerged suction outlets. Fully submerged suction outlets (main drains) are not required.

(d) Entrapment protection. A suction outlet system shall be designed to protect against suction entrapment, evisceration, and hair entanglement/entrapment hazards in accordance with ANSI/APSP-16, American National Standard for Suction Entrapment Avoidance in Swimming Pools, Wading Pools, Spas, Hot Tubs and Catch Basins.

(e) Suction outlets. Suction outlets shall comply with the following:

(1) Covers, grates, and fittings shall be compliant with the VGBA.

(2) At least two hydraulically balanced VGBA-compliant suction outlets shall be provided per pump suction line.

(3) Suction outlets installed in water 4 feet deep or less shall be unblockable such that its perforated (open) area cannot be shadowed by the area of the 18-inch x 23-inch Body Blocking Element as described in ANSI/APSP-16, American National Standard for Suction Entrapment Avoidance in Swimming Pools, Wading Pools, Spas, Hot Tubs and Catch Basins.



(4) The distance between hydraulically balanced VGBA-compliant suction outlets, as measured from center to center of the suction outlet cover or grate shall be no less than three feet.

(5) The flow rating of balanced suction outlets, including the cover or grate, shall be in compliance with the ANSI/APSP/ICC-7 in effect at the time of construction or replacement of any component of a suction outlet.

(6) No means of isolating hydraulically balanced suction outlets is permitted that could allow one suction outlet to serve as the sole source of water to a pump.

(7) A single pipe to a pump suction inlet that serves two or more suction outlets may have a valve to shut off the flow to the pump.

(f) Flow rate through suction fittings. The flow rate through a fitting, cover, or grate shall not exceed the approved flow rate for that fitting, cover, or grate when one suction fitting in a suction outlet system is blocked.

(g) Closure when cover broken, missing, or loose. If the cover or grate on a suction outlet including a vacuum outlet that is missing, broken, or loose, the swimming area of the lagoon shall be closed immediately and remain closed until a proper repair is made or replacement is installed.

(h) Return inlets. A return inlet shall be designed so as not to constitute a hazard to the user.

(i) Automatic cleaners. An automatic bottom or side cleaner that could provide a means of entanglement or entrapment shall not be operated in a swimming area of the lagoon when the swimming area is occupied by users.

#### §265.160. Surface Skimming and Perimeter Overflow (Gutter) Systems.

(a) Licensed engineer. A surface skimming system or perimeter overflow (gutter) system constructed on or after the effective date of this subchapter shall be planned and designed by a licensed engineer.

(b) Surface skimming design. A surface skimming system or perimeter overflow system shall be planned and designed as required in §265.159 of this subchapter (relating to Suction Outlets, Gravity Flow Systems, and Return Inlets) and shall be capable of providing 100% of the design system flow, unless the department has approved an alternate method of disinfectant.

(c) Safe design of surface skimming and perimeter overflow systems. A surface skimmer or perimeter overflow system shall be designed and installed to prevent body and limb entrapment.

(d) Effective skimming action maintained. Surface skimmers shall be located to maintain effective skimming action throughout the lagoon.

(e) Hydraulic capacity of perimeter overflow system. The hydraulic capacity of a perimeter overflow (gutter) surface skimming system shall be capable of handling 100% of the circulation flow, unless the department has approved an alternate method of disinfectant.

#### §265.161. Electrical Requirements.

(a) Licensed designer. An electrical system installed on or after the effective date of this subchapter shall be planned and designed by a licensed engineer or licensed master electrician.

(b) Compliance with National Electrical Code (NEC). All electrical equipment and lines shall comply with applicable provisions in the current NEC in effect on the date of installation.

(c) Testing laboratory approval. Electrical equipment shall be approved by a nationally recognized electrical testing laboratory, such as UL, at the time of installation as evidenced by the listing or labeling on the equipment.

(d) Grounding and bonding. Equipment, as required, shall be bonded and grounded in accordance with the NEC in effect at the time of installation. Pumps shall be both internally and externally grounded and bonded in accordance with the NEC.

(e) Manufacturer's instructions. Electrical equipment and related electrical components shall comply with manufacturer's installation instructions.

(f) Line clearances. Electrical line clearances shall comply with the National Electrical Safety Code or NEC in effect at the time of construction.

(g) Inspections required. For a lagoon constructed on or after the effective date of this subchapter, a licensed electrician shall conduct at least two inspections, one during construction and one after construction, to ensure that all electrical facilities are constructed in compliance with this section.

(h) Shutoff switch for service personnel. A shutoff switch shall be provided for service personnel to disconnect all power to circulation and jet system pumps.

(i) Surf lagoon emergency shut-off switches required. A minimum of two emergency shut-off switches capable of immediately stopping wave generation shall be provided, shall be clearly marked as emergency shut-offs, and shall be readily accessible to lifeguards.

#### §265.162. Water Supply.

(a) Water Supply. For a lagoon constructed on or after the effective date of this subchapter, the initial fill water and make-up water shall come from a public water system as defined by 30 TAC §290.38 (relating to Definitions) or from a well that complies with the requirements of subsection (c) of this section.

(b) Water distribution system. All portions of the water distribution system shall be protected against backflow and back siphonage using a high hazard preventer such as a reduced-pressure-principle backflow preventer meeting the requirements of the American Society of Sanitary Engineering Standard 1013 2013, as amended, and approved for use in potable water systems possibly subjected to back siphonage or high back pressure or an air gap designed to ASME Standard A112.1.2.

(c) Private water supply. If the water supply providing water to the lagoon does not meet the definition of a public water system, that water supply shall comply with the following requirements.

(1) Water supply system. The water supply system shall:

(A) be designed to maintain a minimum pressure of 35 pounds per square inch (psi) at all points within the distribution network at flow rates of at least 1.5 gallons per minute per connection;

(B) be designed to maintain a minimum pressure of 20 psi under combined fire and drinking water flow conditions when the system is intended to provide firefighting capability; and

(C) maintain a minimum distribution pressure not be less than 20 psi at any time.

(2) Bacteriological properties. Coliform testing of the well water shall be performed each month the lagoon is open for use. Records of bacteriological tests of the well water shall be kept on-site for three years and made available during inspection.

(3) Chemical properties.

(A) Water samples for chemical analysis obtained from the entry point to the distribution system shall be submitted to a laboratory certified by TCEQ once every three years.

(B) The chemical analysis shall be for secondary constituent levels as set out by 30 TAC §290.118 (relating to Secondary Constituent Levels) excluding, for saline lagoons, Total Dissolved Solids.

(C) Records of all chemical testing shall be kept on site for three years and made available during inspection.

(d) Hose bibs. Hose bibs shall be protected with a vacuum breaker.

#### §265.163. Drinking Water, Food, Beverages, and Containers.

(a) Drinking water. Drinking water shall be available to users at all areas of the lagoon.

(b) Location of water lines. Location of water lines in relation to wastewater lines shall be in compliance with 30 TAC §290.44 (relating to Water Distribution).

(c) Food and beverages. Food and beverages may be consumed in the lagoon only if it is privately owned and operated. Consumption of food and beverages in a lagoon that is not privately owned and operated is prohibited.

(d) Non-breakable containers. Food and beverages shall be served only in non-breakable containers. Glass containers shall not be allowed on a deck, in the lagoon, or anywhere within the enclosure.

(e) Trash containers. Covered trash containers shall be provided where food and beverages are allowed or served.

#### §265.164. Wastewater Disposal.

(a) Discharge or disposal. Filter backwash water and drainage water that is not reused in a lagoon shall be discharged or disposed of in accordance with the requirements of TCEQ or local regulatory authority.

(b) No direct connection. No direct mechanical (hard) connection shall be made between the lagoon, the lagoon drain, the chemical treatment equipment, or the system of piping and the sanitary sewer system, septic system, or other wastewater disposal system.

(c) Backwash water. Backwash water and lagoon draining water shall be discharged through an air gap formed by positioning the discharge pipe opening at least two pipe diameters above the overflow level of any barriers that could cause flooding and submergence of the discharge opening or by other means in accordance with TCEQ requirements. Splash screening barriers are permitted as long as the barriers do not destroy air gap effectiveness.

(d) On-site sewage facility wastewater disposal lines. On-site sewage facility wastewater disposal lines shall be located in compliance with 30 TAC §285.31 (relating to Selection Criteria for Treatment and Disposal Systems) or local regulatory requirements.

(e) Other wastewater or drainage water disposal facilities or lines. The location of other wastewater disposal facilities or lines shall meet applicable standards of 30 TAC, Chapter 307, Texas Surface Water Quality Standards, Chapter 308, Criteria

and Standards for the National Pollutant Discharge Elimination System, Chapter 311, Watershed Protection, and Chapter 315, Pretreatment Regulations for Existing and New Sources of Pollution, or local regulatory authority.

#### §265.165. Disinfectant Equipment.

(a) Design requirement. Disinfectant equipment and systems constructed on or after the effective date of this subchapter shall be planned and designed by a licensed engineer.

(b) Disinfectant agent. Lagoon water shall be continuously disinfected by a disinfectant agent with a residual that can be easily measured by simple and accurate field tests, unless the department has approved an alternate method of disinfectant.

(c) Training and protection. Personnel responsible for the operation of the disinfectant agent and other potentially hazardous chemicals shall be properly trained and provided with appropriate protective equipment and clothing, including rubber gloves and goggles, safety information, and safety data sheets. Safety data sheets covering all chemicals for which personnel are responsible shall be kept on site and readily available.

(d) Monitoring controllers. Automated, manual, or remotely managed controllers shall be installed for monitoring and turning on or off chemical feeders used for pH and disinfectants.

(e) Instructions. Operation manuals or other instructions that give clear directions for cleaning and calibrating automated controller probes and sensors shall be kept in close proximity to the automated controller.

(f) Storage.

(1) Disinfectant agents and other chemicals and feed equipment shall be stored so that users do not have access.

(2) Dry chemicals shall be stored off the floor in a dry, above-ground-level room and protected against flooding or wetting from floors, walls, and ceiling.

(3) Chlorine compounds shall not be stored in the same storage room or storage area as petroleum products.

(g) Labeling. All chemical bulk and day tanks shall be clearly labeled to indicate the tank's contents.

(h) Chlorine gas prohibited. Use of compressed chlorine gas is prohibited.

#### §265.166. Water Quality.

(a) Environmental Protection Agency (EPA) registration. A sanitizer, disinfectant, or other chemical used to treat the water shall be EPA-registered under the Federal Insecticide, Fungicide, and Rodenticide Act if it is a pesticide as defined by the EPA.

(b) NSF/ANSI listing. A non-pesticide chemical used to treat the water shall be listed and labeled to NSF/ANSI Standard 50 or NSF/ANSI Standard 60.

(c) Manufacturer's instructions. Chemicals shall be used according to the manufacturer's instructions.

(d) Required water quality. Unless the department has approved an alternate form of disinfectant, water quality shall meet the following criteria at all times the lagoon is open.

Figure: 25 TAC §265.166(d)

Disinfectant Level	Minimum	Ideal	Maximum
Free Chlorine	1.0 ppm	2.0 – 3.0 ppm	8.0 ppm
Bromine	2.5 ppm	3.0 – 5.0 ppm	8.0 ppm
Combined Chlorine	None	None	None
pH	Not less than 7.0	7.2 – 7.6	7.8
Cyanuric Acid	None	10.0 – 30.0 ppm	50.0 ppm
ORP	600mV	650 – 750mV	900mV
Alkalinity	50 ppm		180 ppm
Calcium Hardness	150 ppm		1000 ppm
Algae	None	None	None

(e) Water clarity. Water clarity shall be sufficient such that an eight-inch black disk or Secchi Disk on the floor at the deepest part of the swimming areas of the lagoon can be clearly and immediately seen by an observer on the water surface above the disk or by someone standing on the shore closest to the disk.

(f) Swimming area testing frequency.

(1) When a swimming area of a lagoon is open, tests for sanitizer levels (free available chlorine or bromine) and pH shall be made in each swimming area at least three times a day. One of the tests for sanitizer levels and pH shall be made before opening.

(2) Test samples in a swimming area shall be taken where the water is a minimum of three feet in depth.

(3) Alkalinity and calcium hardness testing frequency. Unless the department has approved an alternate method of disinfectant when a lagoon is open, tests for alkalinity shall be performed weekly and tests for calcium hardness shall be performed monthly in all swimming areas of the lagoon.

(g) Non-swimming area testing and frequency.

(1) Unless the department has approved an alternate method of disinfectant when a non-swimming area of a lagoon is open, tests for sanitizer levels (free available chlorine, bromine) and pH shall be performed at least three times a day. One of the tests for sanitizer levels and pH shall be performed before opening.

(2) Test samples in a non-swimming area of the lagoon shall be taken at a minimum of two locations located on opposite sides of the lagoon.

(3) Alkalinity testing frequency. Unless the department has approved an alternate method of disinfectant when a lagoon is open, tests for alkalinity shall be performed weekly and tests for calcium hardness shall be performed monthly.

(h) ORP reading frequency. Readings shall be recorded at the same time sanitizer and pH tests are performed where in-line ORP meters are used.

(i) Reliable testing methods. A reliable means of testing for pH, free available chlorine, combined chlorine, cyanuric acid (if used), bromine, alkalinity, calcium hardness, shall be maintained for the lagoon. The test method shall be capable of measuring chemical ranges as detailed in subsection (d) of this section.

(j) DPD chemical test. Free available chlorine levels shall be determined by the use of the DPD method or its equivalent.

(k) Storage of test kits and reagents. Test kits and reagents shall be stored according to the manufacturer's instructions and protected from extreme heat and cold and from exposure to water, chemicals, petroleum products or any other element or environment that could adversely affect the efficacy of water quality test results.

(l) Testing reagents. Testing reagents shall be changed at frequencies recommended by the manufacturer to ensure accuracy of the tests.

(m) Chemical balance. Unless an alternate method of disinfectant has been approved by the department, water in a lagoon shall be chemically balanced. Testing methods to determine the chemical balance of the water in the lagoon, such as the Langelier Saturation Index, shall be conducted once a week at a minimum.

(n) Operation record retention. Operational records, including results of required chemical testing under this section, shall be kept for three years and be made available during an inspection.

(o) Off-season chemical levels. When a lagoon is not in use for at least 30 days (such as off-season), clarity shall be maintained, and algae growth shall be prevented, however, other water quality parameters as required in this section need not be maintained.

§265.167. Request for Alternate Method of Disinfectant.

(a) Application. Pursuant to Texas Health and Safety Code, §341.064(b), an owner or operator may apply to use an alternate method of disinfectant.

(b) Submission. A completed application for use of an alternate method of disinfectant must be submitted to the department, Consumer Safety Section, no later than 180 days before the opening of the lagoon. The application shall include:

(1) the type and level of primary disinfectant;

(2) the type and level, where applicable, of any supplemental method of water treatment;

(3) the method for and equipment used for storing, delivering, and measuring primary disinfectant levels and supplemental water treatment levels;

(4) data supporting the effectiveness of the primary disinfectant and supplemental method of water treatment in maintaining required water quality;

(5) descriptions of any specialized equipment, application methods, or other water treatment methods that may differ from the requirements in §265.166 of this subchapter (relating to Water Quality);

(6) a proposed testing schedule for determining levels of biological and chemical levels as specified by the department to ensure the health and safety of the public;

(7) a detailed drawing or map of the lagoon that indicates swimming areas and non-swimming areas; and

(8) any additional information the department requires to make its decision.

(c) Decision. The department shall approve or reject a request to use an alternate method of disinfectant no later than 90 days after the completed application is submitted.

(d) Additional information. If the department requires additional information to make its decision, the application is not considered completed for purposes of subsections (b) and (c) of this section until the department receives the additional information as requested.

(e) An alternate method of disinfectant for a particular lagoon approved before the effective date of this subchapter by the department remains in effect for that lagoon.

§265.168. Enclosures.



(a) Enclosure required. The lagoon facility shall be enclosed by a fence, wall, or barrier that meets the requirements in this section.

(b) Minimum height. The enclosure, including doors and gates, shall have a minimum perpendicular height of at least six feet as measured from the ground surface on the outside of the fence.

(c) Openings. The enclosure shall have no openings in, through it, or under it, which would allow a four-inch diameter sphere to pass.

(d) An enclosure constructed with horizontal and vertical members with the distance between the tops of the horizontal members less than 48 inches, shall have openings that shall not allow a sphere 1-3/4 inches in diameter to pass through the enclosure.

(e) The enclosure shall be designed and constructed so that it cannot be readily climbed. Structures, light poles, trees, or any other object that could make the enclosure easy to climb shall be a minimum of three horizontal feet from the exterior of the fence.

(f) Entry gates, doors and windows.

(1) Entry doors, gates, and windows in the enclosure shall be directly and continuously supervised by staff during hours of operation or locked to prevent unauthorized entry.

(2) All entry gates and doors shall open outward away from the lagoon and shall:

(A) have hand-activated opening hardware; and

(B) have hardware enabling the doors and gates to be locked by a padlock or built-in lock.

(g) Latching devices. Entry doors and gates shall be equipped with self-closing and self-latching devices that keep the gate or door securely closed and within its range of operation. A gate latch shall be installed on entry gates and doors so that it is at least 60 inches above the ground, except that it may be installed lower if:

(1) the latch is installed on the lagoon side of the gate only; and

(2) the gate or enclosure has no openings greater than 1/2-inch in any direction within 18 inches from the latch, including the space between the gate and the gate post to which the gate latches; or

(3) a gate latch may be located 42 inches or higher above the ground if the gate cannot be opened except by key, card, or combination from either side of the gate.

(h) Building. A building that serves as part of the enclosure shall have doors or gates that access the yard of the lagoon constructed on or after the effective date of this subchapter only if:

(1) any doors or gates between the building and the lagoon yard are for entry into a storage room, restroom, shower room, dressing room, or mechanical room adjacent to the lagoon; and

(2) the room does not have any door or gate openings to the outside of the enclosure.

#### §265.169. Safety Features.

(a) Safety equipment. Safety equipment shall have its function plainly marked and shall be kept in ready condition at all times a lagoon is open for use.

(b) Boundaries. Boundaries shall be designated as follows.

(1) Boundaries for swimming areas of the lagoon shall be marked by a buoy line with floats.

(A) The buoy line floats or buoys shall be at regular intervals, no further than 25 feet apart and where the lines are joined.

(B) Buoy lines with floats shall be located where the depth of the water is five feet and at the boundary of the swimming and non-swimming areas of the lagoon if the swimming area is deeper than five feet.

(2) Areas of the lagoon intended for wading only or for use by non-swimmers shall not exceed three feet in depth and shall:

(A) have the boundary marked by a buoy line with floats; and

(B) have the buoy line floats or buoys be at regular intervals, no further than 25 feet apart and where lines are joined.

(3) Safety rope and float lines required at the shallow to deep water transition areas of the lagoon shall not apply to surf lagoons.

(c) Surf lagoon float lines and caisson barriers. Surf lagoons shall be fitted with a float line located to restrict access to the caisson wall if required by the surf lagoon equipment manufacturer. Caisson barriers shall be provided for all surf lagoon wave generating caissons which would not allow passage of a 4-inch sphere. Surf lagoons using forced air to generate waves shall not be required to have caisson barriers unless recommended by the manufacturer.

(d) Vessel and motorboat safety.

(1) Ignitable fuel. Motorboats using any ignitable propellant or fuel such as gasoline, kerosene, propane, or alcohol are prohibited in the swimming areas, but may be permitted in other areas for specific events, subject to any safety plan approved by a local regulatory authority.

(2) Personal floatation devices.

(A) Each vessel or motorboat passenger under 13 years of age shall be required to wear a United State Coast Guard (USCG)-approved personal floatation device while the vessel or motorboat is underway. A life belt, floaties, or a ring buoy does not satisfy this requirement.

(B) An adult operator of a vessel or motorboat shall not permit a person under 13 years of age to be on board the vessel or motorboat while the vessel or motorboat is under way if the person is not wearing a USCG-approved personal floatation device.

(C) No person shall be prohibited from the use of a USCG-approved personal floatation device.

(3) Activities. Activities such as snorkeling, scuba diving, or any other activity that allows immersion of users in the non-swimming areas of the lagoon are prohibited when vessels or motorboats are in use unless a rope and float line, as described in subsection (b)(1) of this section, or warning buoys separate the immersion activity area from the area with vessel or motorboat use.

(e) Safety requirements for surfers. No surfer shall enter the surf lagoon unless:

(1) tethered to the surf board; or

(2) wearing a USCG-approved personal floatation device; or

(3) a lifeguard is in the surf lagoon directly supervising surfing activity.

(f) Non-surfing user safety. Non-surfing users shall not be allowed to enter the wave areas of the surf lagoon while waves are being generated unless they are wearing a USCG-approved personal floatation device.

(g) Safety signs. Lagoon safety signs shall comply with the following:

(1) Signs shall be securely mounted.

(2) Signs shall be easily readable from all areas of the lagoon and have a minimum letter, symbol, and number height of three inches.

(3) All letters, numbers, and symbols on the signs shall be in contrasting color to the background and easily read.

(4) Required signs in the swimming area:

- (A) days and hours of operation;
- (B) "Non-Service Animals Prohibited;"
- (C) "Glass Containers Prohibited;"
- (D) "Entering the Lagoon if Ill with Diarrhea is Prohibited;"
- (E) "Changing Diapers Within 6 Feet of the Lagoon is Prohibited;"
- (F) "In Case of Emergency Dial 911;"
- (G) "No Swimmers Allowed Outside the Swimming Area;"
- (H) "No Diving" and the international symbol for no diving where water depths are less than nine feet; and
- (I) maximum user load.

(5) Required signs in the non-swimming area:

- (A) days and hours of operation;
- (B) "Non-Service Animals Prohibited;"
- (C) "Glass Containers Prohibited;"
- (D) "Entering the Lagoon if Ill with Diarrhea is Prohibited;"
- (E) "Changing Diapers Within 6 Feet of the Lagoon is Prohibited;"
- (F) "In Case of Emergency Dial 911;"
- (G) "Motorboats and Vessels Are Prohibited in Swimming Area" at lagoons where vessels or motorboats are allowed;
- (H) "No Diving" and the international symbol for no diving where water depths are less than nine feet; and
- (I) maximum user load.

(6) If lifeguards are not provided or are not required to be present, the following signs are required:

- (A) "Warning - No Lifeguard on Duty;" and

(B) "No Diving" and the international symbol for no diving.

(7) The required notifications may be mounted on individual signs or combined on one sign.

(h) Night swimming prohibited. Night swimming, from one-half hour before sunset to one-half hour after sunrise, shall be prohibited unless lighting is provided as required in subsection (f) of this section.

(i) Lighting Requirements. If the lagoon is open for night swimming or during periods of low illumination, the lagoon surface lighting shall:

(1) Maintain lagoon surface lighting levels at a minimum of 15 horizontal foot candles (161 lux).

(2) Illuminate all parts of the lagoon open for use, including the swimming areas, depth markers, signs, entrances, restrooms, safety equipment, deck areas, walkways, and any area occupied or in use.

(3) Underwater lighting shall not be less than eight-initial rated lumens per linear foot of the lagoon perimeter where underwater lighting is provided. Underwater lighting is not required for lagoon.

(4) Lighting levels of the lagoon may be reduced for scheduled special events such as movies, holiday events, or similar activities.

(j) Ring buoy, throw rope, and reaching pole. A lagoon shall have at least one ring buoy with throwing rope and a reaching pole at each swimming area and at each area that provides access to motorboats or vessels.

(1) The reaching pole shall be in the immediate vicinity of the water and accessible to users.

(2) The reaching pole shall be light, strong, non-telescoping, and at least 12 feet long. The pole shall be constructed of fiberglass or other material that does not conduct electricity and shall have a body hook or shepherd's crook with blunted ends attached.

(3) The throwing rope shall be 1/4-inch to 3/8-inch diameter, with a length at least two-thirds of the width of the swimming area. An USCG-approved ring buoy with an outside diameter of at least 20 inches shall be attached to the throwing rope.

(k) Safety equipment. Safety equipment, including ring buoys and rope, floating lines with buoys, emergency communication equipment, backboards with tie-downs and head supports, first aid kits, and required signs, shall be maintained in good condition and in good working order.

(l) Emergency telephone. The lagoon shall have a minimum of two emergency telephones, commercial emergency contact devices, or alternative communication systems that are capable of immediately summoning emergency services and that are readily accessible, within 200 feet of the water, and are functioning at all times the lagoon is open. Clear operating instructions for the emergency telephone shall be provided.

(1) A fixed location telephone, commercial emergency contact device, or alternative communication system shall be visible, have no obstruction to access, and have some method of identification that enables the telephone or other device or system to be easily identified by users.

(2) A telephone or emergency contact device shall not be answered by an on-site office. The alternative communication system shall not be answered by an on-site office unless the alternative communication system complies with paragraph (5) of this subsection.

(3) A telephone shall be capable of making outside calls to 911 dispatch or emergency medical services.

(4) A commercial emergency contact device, when activated, shall directly connect to a 24-hour monitoring service, or directly to 911 dispatch or to emergency medical services.

(5) An alternative communication system that contacts an on-site office may be used if the lagoon is in a remote area with limited or delayed emergency medical services response times, and it has employees on-site that are trained and certified or licensed to perform emergency medical intervention when the lagoon is open.

(6) At least one emergency telephone, commercial emergency contact device, or alternative communication system device shall be located within 200 feet of a swimming area.

#### §265.170. Lifeguard Requirements.

(a) Waterfront supervision. A waterfront manager or director who holds a current lifeguard certificate or its equivalent shall be required to manage and direct all water-related activities in the non-swimming and swimming areas.

(b) Lifeguards required. A lagoon shall provide lifeguards if:

(1) alcohol is sold, served, or allowed to be brought in;

(2) motorboats are used or allowed;

(3) the lagoon is open to the general public;

(4) the lagoon is used for the recreation of youth groups, including youth camps, childcare, or school groups;

(5) unsupervised children under the age of 14 years are allowed; or

(6) users enter the water from any height above the deck or wall, including from diving boards, drop slides, starting platforms, or climbing walls.

(c) Minimum number. A minimum of two lifeguards shall be provided for each swimming area. In the non-swimming area of the lagoon, the owner or operator shall have a lifeguard safety plan in place that defines the number of lifeguards for non-swimming swimming areas when open.

(1) The number of lifeguards shall be sufficient to provide adequate supervision and close observation of all users at all times.

(2) The number of lifeguards shall be sufficient to allow for alternation of tasks such that no lifeguard conducts surveillance activities for more than 60 continuous minutes.

(d) Surveillance. Each lifeguard shall be given an assigned surveillance area commensurate with ability and training.

(e) Other assigned duties shall not distract. Lifeguards conducting surveillance of users shall not be assigned duties that would distract the lifeguard's attention from proper observation of the users, or that would prevent immediate assistance to persons in the water.

(f) In-service training. Lifeguards shall be provided with alertness and response drills and other training, including:

(1) a pre-season training program to refresh skills;

(2) review of the Centers for Disease Control and Prevention standards for responding to formed-stool contamination, diarrheal-stool contamination, vomit contamination and contamination involving blood; and

(3) a continual "in-service" training program totaling a minimum 60 minutes each week for each lifeguard; and

(4) performance audits as recommended by the ARC, Young Men's Christian Association, or equivalent aquatic safety organization.

(g) Records kept on-site. Records of each lifeguard's certification, including expiration dates, and in-service training records, shall be kept on-site for at least three years.

(h) Emergency action plan. An Emergency Action Plan shall be developed for the lifeguards and shall contain at a minimum:

(1) a list of emergency telephone numbers;

(2) the location of the first-aid kit and other rescue equipment such as the AED, BVM, and the backboard;

(3) a response plan for inclement weather such as thunderstorms, lightning, or high winds, including evacuation areas; and

(4) a plan following Centers for Disease Control and Prevention standards for responding to formed-stool contamination, diarrheal-stool contamination, vomit contamination, and contamination involving blood.

(i) Safety equipment. Lifeguards shall have access to safety equipment, including:

(1) An Occupational Safety and Health Administration (OSHA)-compliant 24-unit first aid kit housed in a durable weather-resistant container and kept filled and ready for use. The kit shall include disease transmission barriers and cleaning kits meeting OSHA standards.

(2) A number of backboards equipped with a head immobilizer and sufficient straps to immobilize a person to the backboard, in locations sufficient to affect a two-minute response time to an incident.

(3) At least one portable AED and one BVM kept in a secure location that can be easily and quickly accessed by lifeguards or other trained personnel.

(4) Platforms or stands are required where water surface area is greater than 2,000 square feet or where the depth of the water is greater than 5 feet and shall include a protective umbrella or sunshade high enough to give lifeguards a complete and unobstructed view of the area of responsibility for the lifeguards.

(j) Personal equipment. Each lifeguard shall be provided:

(1) uniform attire that readily identifies the lifeguard as a staff member and a lifeguard;

(2) a rescue tube with a strap;

(3) personal protective devices, including a resuscitation mask with one-way valve and non-latex, non-powdered, one-use disposable gloves worn as a hip pack or attached to the rescue tube; and

(4) a whistle or other signaling device for communicating to users, other lifeguards, or staff.



(k) Equipment for lifeguards for surf lagoons. In addition to the requirements for lifeguards in this section, lifeguards for surf lagoons shall be provided with any equipment necessary to reach the deepest area of the surf lagoon during an emergency. The equipment shall be accessible to all lifeguards, clearly labeled as "For Lifeguard Use Only" and shall be available at all times the surf lagoon is open and used for surfing.

#### §265.171. Operation and Management.

(a) Required certification. The lagoon shall be maintained under the supervision and direction of a properly trained and certified operator who is responsible for the sanitation, safety, proper maintenance of the lagoon, and for maintaining all physical and mechanical equipment and records. Training and certification can be obtained by completion of one of following courses or their equivalent:

(1) the National Recreation and Parks Association, "Aquatic Facility Operator;"

(2) the PHTA, "Certified Pool Operator;" or

(3) the American Swimming Pool and Spa Association, "Licensed Aquatic Facility Technician."

(b) Water clarity. The lagoon shall be opened for use only when the bottom at the deepest point of the swimming areas of the lagoon are clearly visible. Visual occlusion by sediment or other matter shall be checked before opening and periodically, as necessary, while the lagoon is in use. Clarity shall be observed between one and five minutes after users have exited. Sediment shall be removed as needed before allowing re-entry by users into the lagoon.

(c) Closure signs. When the lagoon is closed for the season or for any other reason other than during normal operating periods, a "Lagoon Closed" sign in letters at least one-inch in height shall be posted on the exterior of each entrance.

(d) Off-season water clarity. When the lagoon is not in use for at least 30 days (such as off-season), clarity shall be maintained, and algae growth shall be prevented, however, other water quality parameters required by §265.166 of this subchapter (relating to Water Quality) need not be maintained.

(e) Off-season safety. When a lagoon is not in use after seasonal operation, while under construction or renovation, or for any other reason, the lagoon shall not be allowed to give off objectionable odors, become a breeding site for pests, or create any other nuisance condition or hazard.

(f) Domestic animals prohibited. Domestic animals and other pets shall not be allowed within the enclosure, except that service animals shall be allowed within the enclosure, but not in the lagoon.

(g) Floatation devices. No person shall be prohibited from the use of a USCG-approved personal floatation device.

(h) Protection from chemical exposure. Personnel in charge of maintaining the lagoon shall be properly trained in accordance with §265.165 of this subchapter (relating to Disinfectant Equipment).

(i) Use of chemicals. Use of chemicals shall be according to the chemical manufacturer's directions. No chemical shall be used in a way that violates the manufacturer's instructions for the chemical feed system or the NSF/ANSI 50 or NSF/ANSI 60 certification of the chemical feed system.

(j) Use of registered products. Only chemicals registered and labeled for use in pools, spas, drinking water, and other recreational water aquatic facilities shall be used.

#### §265.172. Dressing and Sanitary Facilities.

(a) Fixture design. Fixtures at dressing and sanitary facilities shall be designed so that the fixtures are readily cleanable.

(b) Fixture installation. Fixtures at dressing and sanitary facilities shall be installed in accordance with local plumbing codes and shall be properly protected by backflow connection prevention devices.

(c) Cleaning. Dressing and sanitary facilities shall be cleaned as necessary to maintain sanitary conditions at all times.

(d) Ventilation. Adequate ventilation shall be provided in dressing and sanitary facilities to prevent objectionable odors.

(e) Dressing and sanitary facilities at lagoons open to the general public.

(1) Separate men's and women's dressing and sanitary facilities shall be provided. The rooms shall be well lit, drained, ventilated, and of good construction, using impervious materials. The facilities shall be developed and planned so that good sanitation will be maintained throughout the building at all times. An appropriate number of dressing rooms that can accommodate a family are allowed.

(2) Partitions between portions of the dressing room area, screen partitions, shower, toilet, and dressing room booths shall be of durable material not subject to damage by water and shall be designed so that a waterway is provided between partitions and floor to permit thorough cleaning of the walls and floor areas with hoses and brooms.

(3) Floors shall have slip-resistant surfaces and shall be sufficiently smooth to ensure ease in cleaning. Floor drains shall be provided, and floors shall be sloped a minimum of 1/4-inch per foot toward the drains to ensure positive drainage.

(4) An adequate number of hose bibs and a hose of adequate length shall be provided for washing down all areas of the dressing facility interior. Adequate cross-connection control devices, approved by TCEQ or the local regulatory authority, shall be provided. When not in use, hoses shall be stored in such a manner to prevent a trip hazard.

(f) Lavatories, showers, and toilets at lagoons open to the general public constructed on or after the effective date of this subchapter shall comply with the following.

(1) Lavatory, shower, and toilet facilities shall be located to encourage use of the sanitary facilities by users of the lagoon as follows:

- (A) at points of main entry into the enclosure;
- (B) within 200 feet of entry or exit into the swimming area; and
- (C) no more than 500 feet from entry or exit into the non-swimming area.

(2) The required fixture schedule for lagoons open to the general public is contained in the following table:

Figure: 25 TAC §265.172(f)(2)

Fixture Schedule	Females	Males
Water Closets	1/50	1/100 <sup>1</sup>
Urinals	NA	1/100 <sup>1</sup>
Lavatories	1/150	1/150
Cleansing showers <sup>2</sup>	1/100	1/100
Baby Changing Table	1 per sanitary facility	1 per sanitary facility

<sup>1</sup>Where urinals are provided, one water closet less than the number specified may be provided for each urinal installed except the number of water closets shall not be reduced to less than one-half of the minimum specified.

<sup>2</sup>Where tower rinsing showers are provided at the entry or exit into the lagoon, one shower less than the number specified may be provided for each tower rinsing shower except the number of conventional showers shall not be reduced to less than one-half of the minimum specified. Tower rinsing showers are not required to provide heated water.

(3) Cleansing showers and lavatories shall be provided with hot and cold running water.

(4) The number of total fixtures required at the lagoon can be distributed between required sanitary facilities within the enclosure of the lagoon.

(g) Lavatories, showers, and toilets at lagoons serving apartments, Home Owners Associations (HOAs), condominiums, hotels or motels, or other mixed-use, privately owned developments shall comply with the following.

(1) Lavatories, showers, and toilets shall be located to encourage use of the sanitary facilities by users of the lagoon as follows:

(A) within 200 feet of entry or exit into the swimming areas of the lagoon; and

(B) no more than 500 feet from entry or exit into the non-swimming areas of the lagoon.

(2) The required fixture schedule for lagoons at apartments, HOAs, condominiums, hotels or motels, or other mixed used privately owned developments are contained in the following table:

Figure: 25 TAC §265.172(g)(2)

Fixture Schedule	Females	Males
Water Closets	1/50	1/100 <sup>1</sup>
Urinals	NA	1/100 <sup>1</sup>
Lavatories <sup>2</sup>	1/150	1/150
Rinsing showers <sup>3</sup>	1/200	1/200
Baby Changing Table	1 per sanitary facility	1 per sanitary facility

<sup>1</sup> Where urinals are provided, one water closet less than the number specified may be provided for each urinal installed except the number of water closets shall not be reduced to less than one-half of the minimum specified.

<sup>2</sup> Lavatories shall be provided with hot and cold running water.

<sup>3</sup> Rinsing showers can be tower showers or single showers without heated water, or individual showers with hot and cold running water.

(3) Lavatories, showers, and toilets in apartments, HOAs, condominiums, hotels or motels, or other mixed use privately owned developments sharing use or ownership of the lagoon may count their public-use sanitary facilities toward the required number of fixtures if in compliance with paragraph (2) of this subsection.

(4) When sanitary facilities are located within an apartment, HOA, condominium, hotel or motel, or other mixed-use privately owned development sharing use or ownership of the lagoon, a sign shall be posted at each entry or exit in letters at

least three inches in height stating the location of the nearest available restroom facility.

(h) Additional requirements for all sanitary facilities:

(1) Soap dispensers with liquid or powdered soap shall be provided at each lavatory. The dispenser shall be metal or plastic, with no glass permitted.

(2) When provided, mirrors shall be shatter resistant.

(3) Toilet paper holders and toilet paper shall be provided at each toilet.

(4) Covered waste receptacles shall be provided in toilet or dressing room areas.

(5) Single-use hand drying towels or hand drying devices shall be provided near the lavatory.

§265.173. Compliance, Inspections, and Investigations.

(a) A department or local regulatory authority shall have the right to enter at all reasonable times any area or environment, including the lagoon facility, building, storage, equipment room, bathhouse, or office to inspect and investigate for compliance with this subchapter to review records, to question any person, or to locate, identify, and assess the condition of the lagoon.

(b) Advance notice or permission for entry is not required.

(c) A department or local regulatory authority shall not be impeded or refused entry during his official duties by reason of any company policy.

(d) It is a violation of this subchapter for a person to interfere, deny, or delay an inspection or investigation conducted by a department or a local regulatory authority.

§265.174. Enforcement.

(a) If a person violates Texas Health and Safety Code, §341.064, or this subchapter, the department or local regulatory authority may, in accordance with Texas Health and Safety Code, §341.092, institute a civil suit in district court for the assessment of civil penalties, injunctive relief, or both.

(b) A person who violates Texas Health and Safety Code, §341.064, or this subchapter may also be subject to a criminal penalty under Texas Health and Safety Code, §341.091.

(c) If the lagoon closes, either voluntarily or by court order, public access to the lagoon shall be restricted and a notice posted notifying the public that the lagoon is closed until further notice.