

Aquatic and Recreational Facilities Code

Department of Community Health and The Environment
Division of Environmental Health and Protection

Notes

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TITLE II: PUBLIC HEALTH, SAFETY & WELFARE

CHAPTER 233: AQUATIC AND RECREATIONAL FACILITIES CODE

ARTICLE I. GENERAL PROVISIONS

Section 233.005 Title, Intent, Scope

- A. These provisions shall be known as the St. Charles County Government Aquatic and Recreational Facilities Code, hereinafter referred to as 'this Code'.
- B. The purposes of this Code is to safeguard public health and provide to consumers of aquatic and recreational facilities a safe environment from disease and physical dangers.
- C. This Code establishes definitions, and contains the minimum requirements for the design and operation of aquatic centers and recreational facilities. Procedures for the approval of plans, design criteria and acceptable practices are featured. The criteria are based on current information, engineering principles and public health practices. Where adequate standards do not exist and this code does not provide sufficient guidance for consideration of innovations in design, construction, and operation of proposed aquatic centers, the department will establish requirements necessary to protect the health and safety of the aquatic center patrons.
- D. Where such terms as "shall" and "must" are used, they are to mean a mandatory requirement. Other terms such as "should," "recommended," "preferred," and the like indicate discretionary requirements and deviations which are subject to individual consideration

Section 233.010 Applicability and Terms Defined

- A. The following definitions apply in the interpretation and application of Chapter 233, Article 1 – Article XIII.
- B. Terms Defined.
 - (1) **"Air induction system"** means a system whereby a volume of air is introduced into hollow ducting in a spa floor, bench or walls. An air induction system is activated by an air power blower and is separate from the water circulation system.
 - (2) **"Alteration"** means a modification of a public water recreation facility. The term includes but is not limited to an alteration of a pool that changes the depth or volume, addition of an appurtenance to a pool, modification of the design of the recirculation system for a pool, or any addition, replacement or



modification that modifies the original engineered design as approved by the Department of Community Health and the Environment.

- (3) **"ANSI"** is an abbreviation for American National Standards Institute.
- (4) **"Approval"** means compliance with the Ordinance and this Chapter.
- (5) **"Appurtenance"** means an accessory facility or feature at a public water recreation facility, such as a diving board, slide, plunge pool, spray pool, or bathhouse.
- (6) **"Aquatic Center"** means swimming pools, spray pools, wading pools, whirlpools, spas and hot tubs, training-special use pools, flumes, waterslides, watercourse rides and wave pools, and other non-natural water recreation areas not specifically exempted from the scope of this chapter, together with buildings, appurtenances and equipment required or used in connection therewith.
- (7) **"Aquatic unit"** means those parts of an aquatic center that contain water such as, but not limited to; swimming pools, spray pools, wading pools, whirlpools, spas and hot tubs, training-special use pools, flumes, waterslides, watercourse rides and wave pools, and other non-natural water recreation areas.
- (8) **"ASME"** is an abbreviation for American Society of Mechanical Engineers.
- (9) **"Backwash"** means the process of thoroughly cleaning a filter by reverse flow of water through the filter.
- (10) **"Barrier"** means a fence, wall, building or landscaping that obstructs access to an aquatic center.
- (11) **"Bather Load"** means the maximum number of persons that may be allowed in the pool areas at one time without creating undue health or safety hazards.
- (12) **"Cartridge filter"** means a depth, pleated or surface-type filter component with fixed dimensions that is designed to remove suspended particles from water flowing through the filter.
- (13) **"Clean"** means free from slime, scum, dirt or other debris.
- (14) **"Construction"** means the process of building or remodeling a public water recreation facility, or appurtenance.
- (15) **"Deck"** means a hard surface immediately adjacent to or attached to an aquatic unit that is designed for sitting, standing or walking.
- (16) **"Deep Area"** means an area of a swimming pool in which the water depth exceeds five feet.



- (17) **"Department"** shall mean the St. Charles County Department of Community Health and the Environment.
- (18) **"Director"** means the Director of the Department of Community Health and Environment or his/her duly authorized agents.
- (19) **"Discharge piping"** means the portion of the circulation system that carries water from the filter back to the swimming pool or spa.
- (20) **"Diving Pool"** means a pool designed and intended for use exclusively for diving.
- (21) **"DPD"** is an abbreviation for Diethyl-p-Phenylene Diamine. The indicator usually is used in tablet or powder form which measures chlorine and bromine levels in pool and spa water.
- (22) **"Drop Slide"** means a slide with an exit angle exceeding 11 degrees measured downward from the horizontal.
- (23) **"Fill and draw pool"** means an aquatic unit where the principal means of cleaning is the complete removal of the used water and the replacement thereof with potable water.
- (24) **"Filtration rate"** means the rate of water flowing through a filter during the filter cycle expressed in gallons per minute per square foot of effective filter area.
- (25) **"Fitness Center"** means an operation that serves as an exercise establishment:
(a) Such as a gym, weight gym, aerobic center, wrestling room, martial arts, or those facilities deemed by the Director falling into §233.010(B)(26).
- (26) **"Floor Slope"** means a location in a pool where there is an abrupt change in floor slope, or a location on a pool floor where an area having a floor slope of no more than one foot vertical in 12 feet horizontal adjoins an area having a greater floor slope, with the floor slope increasing in the direction of increasing water depth.
- (27) **"Flume"** means the inclined channel of a slide.
- (28) **"Freeboard"** means that section of the pool wall measured vertically between the water surface and the walkway or deck surface.
- (29) **"GPM"** is an abbreviation for Gallons Per Minute.
- (30) **"Hose bibb"** means a faucet with a threaded nozzle to which a hose may be attached.
- (31) **"Hot Tub"** See "Whirlpool"
- (32) **"Hydrotherapy jet"** means a fitting that blends water and air and creates a high velocity turbulent stream of air-enriched water for injection into a spa.
- (33) **"Incontinent"** means unable to restrain a bowel movement.



- (34) **"Inlet"** means an opening of fitting through which filtered water enters the pool.
- (35) **"Make-up water"** means fresh water used to fill or refill an aquatic unit.
- (36) **"Main Drain"** means an outlet(s) in the floor of an aquatic unit.
- (37) **"Manager"** see definition of "Operator"
- (38) **"Maximum bathing load"** means the design capacity or maximum number of users that an aquatic unit is designed to hold.
- (39) **"Natural aquatic unit"** means unmodified natural outdoor lakes, ponds, rivers, etc.
- (40) **"NCAA"** is an abbreviation for National Collegiate Athletic Association.
- (41) **"NFSHSA"** is an abbreviation for National Federation of State High School Associations
- (42) **"Operate"** means to conduct, maintain or otherwise provide facilities and appurtenances at aquatic or recreational facilities.
- (43) **"Operator"** means the person or entity responsible for the actual daily operation, or for the supervision of the operation of an aquatic or recreational facility.
- (44) **"Overflow system"** means and includes gutters and other rim type overflows, surface skimmers and collection systems of various designs and manufacture.
- (45) **"Perimeter Overflow System"** means a channel normally extending completely around the pool used to skim the surface layer of water, also known as an overflow gutter.
- (46) **"Permit"** means a certificate issued by the Department allowing the operation, construction, development, or alteration of an aquatic or recreational facility.
- (47) **"Permit holder"** means the entity that:
- (a) Is legally responsible for the operation of the aquatic center such as the owner, the owner's agent, or other person; and
 - (b) Possesses a valid permit to operate an aquatic or recreational facility.
- (48) **"Person"** means an individual, corporation partnership, unincorporated association or other organization authorized by law.
- (49) **"pH"** indicates the degree of acidity or alkalinity of water. The pH scale is from 0 to 14 with pH 7.0 being the neutral point, i.e., water with pH of 7.0 is neither acid nor alkaline, and it is neutral. Above pH 7.0 the water is alkaline and below pH 7.0 it is acidic.



- (50) **"Plunge Area"** means a location in a pool or bathing beach at the exit of a slide, or the area in a pool below and in front of a diving board or platform.
- (51) **"Plunge Pool"** means a pool designed for and used exclusively as a plunge area for one or more slides.
- (52) **"Pool"** see definition of "swimming pool"
- (53) **"Pool Deck"** means a walkway surrounding an aquatic unit, which is specifically constructed or installed for use by bathers.
- (54) **"Pool Depth"** means the vertical distance between the pool floor and the water level.
- (55) **"Potable water"** means drinking water.
- (56) **"PPM"** is an abbreviation for Parts Per Million.
- (57) **"Private residential swimming pool"** means a pool operated by an individual for his own or his family's use or for guests of his household, or by an owner, to serve a housing group consisting of no more than three (3) living units. Private pools are exempt from these regulations.
- (58) **"Public aquatic center"** means an aquatic center that is open to the public with or without a fee, including a center that is operated by a community, municipality, political subdivision, school district, university, college or a commercial establishment whose primary business is the operation of an aquatic center.
- (59) **"Recreational Facility"** means fitness center and/or a tanning center.
- (60) **"Recirculation Piping"** means the piping from the pool to the filters and back to the pool, through which the pool water circulates.
- (61) **"Recessed treads"** means a series of vertically spaced, preformed stepholes in a swimming pool wall.
- (62) **"Resurfacing"** means any alteration that is greater than ten (10) percent of the pool interior surface. This shall include but not be limited to plastering, painting, tiling, application of pebble type finish, fiberglass or any other approved alternative surface.
- (63) **"Return inlet"** means an aperture or fitting through which filtered water returns to a swimming pool or spa.
- (64) **"Return line"** means that portion of the recirculating system piping which carries clean water from the filter back to the swimming pool.
- (65) **"Rope and float line"** means a continuous line not less than three-quarter (3/4) inch in diameter that is supported by buoys and attached to opposite sides of a swimming pool to separate areas of the swimming pool.
- (66) **"Safety Vacuum Release Device"** means a device that has been designed to prevent bather entrapment on a suction fitting



in a pool by immediately admitting air into the suction piping or by de-energizing the pump upon sensing an increase in vacuum in the suction pipe.

- (67) **"Sanitary facilities"** means a designated area that includes a toilet and sink and may include a shower or urinal.
- (68) **"Scum"** means a film that forms on the surface of water.
- (69) **"Secchi Disk"** refers to a 200-mm circular plate, which has opposite quarters painted gloss white and black.
- (70) **"Semiartificial aquatic unit"** means a natural aquatic unit that has been modified by man.
- (71) **"Semipublic aquatic center"** means an aquatic center operated only for:
 - (a) occupants of temporary lodgings; or
 - (b) residents of residential communities and (if applicable) their guests; or
 - (c) members of clubs or organizations and (if applicable) their guests.
- (72) **"Service animal"** means an animal such as a guide dog, signal dog or other animal individually trained to provide assistance to an individual with a disability.
- (73) **"Shallow Area"** means an area in a pool, in which the water depth does not exceed three (3) feet at any point.
- (74) **"Shock treatment"** means adding chlorine to water in an amount sufficient to destroy ammonia, nitrogenous and organic contaminants in the water by elevating the free chlorine residual to a level 10 times the combined chlorine reading in parts per million.
- (75) **"Skimmer"** means a mechanical device connected to the recirculation piping which is used to skim the pool surface.
- (76) **"Slide"** means a recreational feature. Including a water slide or drop slide, or drop slide, with a smooth, inclined flume or channel by which a rider is conveyed downward to a plunge area.
- (77) **"Slip-resistant"** means a surface that has a static coefficient of friction (wet or dry) of at least 0.50.
- (78) **"Slime"** means a glutinous or viscous liquid matter.
- (79) **"Spa"** means an artificial basin, chamber or tank of irregular or geometric shell design that is intended only for bathing or soaking and that is not drained, cleaned or refilled for each user. A spa may include features such as hydrotherapy jet circulation, hot water, cold water, mineral baths or an air induction system. Industry terminology includes "hydrotherapy pool," "whirlpool", "hot tub" and "therapy pool".
- (80) **"Spray pool"** means an artificially constructed area over which water is sprayed but is not allowed to pool.



- (81) **"Special use pool"** means a swimming pool intended for competitive aquatic events, aquatic exercise or lap swimming. A special use pool includes a wave action pool, exit pool for a water slide, swimming pool that is part of an attraction at a water recreation park, water volleyball pool or a swimming pool with special features used for training and instruction.
- (82) **"Suction Grate"** means a cover for a suction outlet that is flat, normally having a regular and uniform pattern of openings for passage of water. The term does not refer to an anti-vortex cover.
- (83) **"Suction outlet"** means the aperture or fitting through which water is withdrawn from a swimming pool or spa.
- (84) **"Swimming pool"** shall mean an artificial basin, chamber or tank, constructed and used, or intended to be used, for swimming, diving or bathing. An aquatic unit less than two (2) acres (87,120 square feet) shall meet the criteria for swimming pools.
- (85) **"Total alkalinity"** means the measurements of the carbonates, bicarbonates and hydroxides in the water, which if insufficient, may cause the pH to be unstable and produce corrosive conditions. Conversely, if the total alkalinity is too high, scale could be formed
- (86) **"Turnover rate"** means the number of hours required to circulate a volume of water equal to the capacity of the swimming pool or spa.
- (87) **"Wading pool"** means any swimming pool used or designed to be primarily used for wading by children and having a maximum depth of eighteen (18) inches.
- (88) **"Water Level"** means the level of the overflow lip of a perimeter overflow system or the mid-level of the skimmer operating range.
- (89) **"Water Slide"** means a water recreation attraction having one or more flumes.
- (90) **"Wave pool"** means a swimming pool designed for the purpose of producing wave action in the water.
- (91) **"Whirlpool", "spa", and "hot tub"** means an artificial basin, chamber or tank of irregular or geometric shell design that is intended only for bathing or soaking and that is not drained, cleaned or refilled for each user. A spa may include features such as hydrotherapy jet circulation, hot water, cold water, mineral baths or an air induction system. Industry terminology includes "hydrotherapy pool," "whirlpool", "hot tub" and "therapy pool".



(92) **"Zero Depth Entry Pool"** means a swimming pool where the pool floor intersects the water surface along a portion of its perimeter.

Section 233.020 Approval of Plans and Construction Required

- A. A person shall obtain design approval from the Department prior to starting construction of a new aquatic center, changing in use from an public or semipublic aquatic center, changing in use from a private residential aquatic center to a public or semipublic aquatic center, or beginning major modifications to an existing aquatic center. For purposes of this subsection, major modifications include a change to:
- (1). The shape; or
 - (2). The depth; or
 - (3). The water circulation system; or
 - (4). The enclosure; or
 - (5). Resurfacing the pool interior or deck; or
 - (6). Adding a water feature or planter; or
 - (7). The disinfection system; or
 - (8). The installation of diving equipment.
- At an aquatic center an appropriately licensed contractor, Architect, or Professional Engineer shall submit plans for a major modification.
- B. The owner shall complete fully an Application for Approval to construct any proposed aquatic center and shall be submitted to the Department on forms furnished by the Department. Such application for approval shall accompany the plans, when required, and specifications at the time of submission to the Department for review.
- C. The operator/owner of a previously approved aquatic center as defined in these regulations, intending to change the nature of the classification from public to semipublic or from semipublic to public must demonstrate, to the satisfaction of the Department, that the facility meets all requirements of these regulations as related to the desired classification. If any additional construction or modification of the facility shall be required, plans and specifications of the proposed facility shall be submitted for approval.
- D. Plans and specifications shall be submitted to the Department with the appropriate fees at least 30 days prior to the date upon which action is desired. Plan documents submitted for approval to construct shall include a general plot plan, plans and specifications showing the pool shape, dimensions, water treatment and pumping facilities, piping arrangement and sizes, source of water supply, method of disposal of wastes, and all pertinent data upon which the design is based on and shall include capacities of the various units, safety equipment,



architectural drawings for fencing, water features and other information necessary to permit a clear and full understanding of the proposed project. Where required, detailed plans of bathhouses, dressing rooms, toilets, recreational and other pool appurtenances shall be included.

- E. All plans and specifications submitted to the Department for approval must have been prepared by, or under the supervision of, a currently registered Missouri Professional Engineer or Architect, or a swimming pool contractor with appropriate license who is licensed to practice in the state of Missouri, who shall certify that the plans comply with these regulations and criteria contained in the swimming pool design policies.
- F. All work shall conform to approved plans and specifications. Should it be necessary or desirable to make any changes in the approved plans and specifications of the proposed work, revised plans and specifications, together with a written statement of the reasons for such change, shall be submitted to the Department for review. The Application for Approval to Construct must be obtained in writing before the work affected by the change is undertaken.
- G. The Department will, upon receipt from the applicant of reasonable advance notice of readiness to, make necessary inspections to determine that the pool piping system, and thereafter the complete pool circulation, purification, and waste systems are in compliance with these regulations. The piping system shall be left open and exposed until the Department has examined and approved the system in writing. The complete pool, including circulation, purification and waste systems shall be deemed acceptable only after examination and issuance of written approval of construction by the Department.
- H. The design, operation and maintenance of aquatic centers shall be in conformance with these regulations and criteria contained in the Department swimming pool design policy.
- I. Before Approval of Construction shall be given for the operation of an aquatic center, the swimming pool contractor or a currently registered engineer or architect shall certify that the completed aquatic center is constructed in accordance with the approved plans and specifications.

Section 233.030 Permit Required

- A. An aquatic center in unincorporated St. Charles County or a municipality in St Charles County that has adopted the St. Charles County Aquatic Code and contracted with St. Charles County for enforcement shall be;



- (1) Maintained or operated with an operating permit in force issued by the Department. The permit shall be displayed in a conspicuous place on the premises where the public may readily observe it. No permit shall be issued until the applicable permit fee has been rendered. Permit fees are listed in Chapter 233, Article XV. If the operating permit for a public or semipublic swimming pool, special use pool, spa, or wading pool lapses or is invalid for a period of more than one (1) year, the pool shall be in compliance with the current code requirements in order to qualify for a new operating permit.

Section 233.040 Instructions

- A. All persons shall be instructed before entering an aquatic center, by means of suitable, clearly lettered signs properly located, to observe all safety regulations. The sign shall contain, at a minimum, all of the following:
 - (1). Persons with sore or inflamed eyes, colds, nasal or ear discharges, boils or other acute or obvious skin or body infections, or cuts shall be excluded from the pool.
 - (2). No glass allowed within the pool enclosures.
 - (3). No animals allowed except for service animals.
 - (4). No drinks, candy, tobacco, popcorn, gum, alcohol, or food of any kind shall be permitted in the pool or within the required walkways of the pool.
 - (5). Keep gate(s) closed – do not prop open.
 - (6). Shower before entering the pool.
 - (7). If incontinent, wear tight fitting rubber or plastic pants or a swim diaper.
 - (8). Observe all safety regulations.

Section 233.050 Attire and Towels, etc.

- A. Bathing attire, towels, linens and similar articles shall be clean, dry and sanitary when provided to patrons.
- B. The provision of towels, drinking cup, combs, hairbrushes, bar of soap and other similar items for use in common by the public is prohibited.

Section 233.060 Excluded

- A. Persons with sore or inflamed eyes, colds, nasal or ear discharges, boils or other acute or obvious skin or body infections, or cuts shall be excluded from entering the water of an aquatic center. No person in or at an aquatic center shall commit, or be permitted to commit, any act prejudicial



to the life or health of any other person using the pool. Animals shall be excluded from the aquatic center enclosure, except for service animals. All animals shall be excluded from bathing at aquatic centers.

Section 233.070 Drinking Water

- A. Drinking water from an approved source and dispensed through one (1) or more drinking fountains shall be located on the deck of each aquatic center.

Section 233.080 Concessions

- A. Drinks, candy, tobacco, popcorn, gum, alcohol, or food of any kind should not be permitted in the pool or within ten (10) feet of a public aquatic center or within four (4) feet of a semipublic aquatic center.
 - (1). No food or drink of any kind shall be allowed in the pool or within the required walkways of the aquatic center.
 - (2). Food and drink will be allowed within the pool enclosure but outside the area provided that only paper or plastic service is used. No glass is permitted within the pool or spa enclosure.
 - (3). All food service establishments operated in conjunction with aquatic centers and recreational facilities shall be constructed and operated in accordance with the St. Charles County Food Establishment Code (Chapter 230).

Section 233.090 Operation

- A. All aquatic facilities shall at all times be operated and maintained in a clean, safe and sanitary condition. The following conditions are considered critical violations and the owner of an aquatic center shall close that facility if any of the following conditions exist:
 - (1). Absence of an approved disinfectant;
 - (2). Violation of the physical standards of §233.170;
 - (3). Filtration system is inoperative;
 - (4). Mechanical disinfectant feeder is missing, inoperative, or malfunctioning;
 - (5). Broken or missing main drain covers or other suction outlet covers;
 - (6). When required, lifeguards are not present or the required number of lifeguards is not present;
 - (7). Gates are not self-closing and self-latching or there is a breach of the pool enclosure;
 - (8). Leaking gas chlorinator;
 - (9). Absence of all safety equipment;
 - (10). Electrical wires over the pool;



- (11). Broken glass in the pool area;
 - (12). Any other operational condition which may cause injury or present a danger to the public health.
- B. A written notice of an aquatic center closure shall be posted at the aquatic unit entrance to prohibit any person from using the facility.

Section 233.100 Violations

- A. Any person, firm, or corporation who builds, offers for sale or operates an aquatic center contrary to these regulations shall be subject to administrative actions.

Section 233.110 Retroactive Provisions

- A. Except as provided in this section, construction and structural standards of this code shall not apply to permitted aquatic centers that were constructed prior to the effective date of this code. However, such aquatic centers shall meet this code's requirements for operation in §233.090 and this code's structural requirements in §233.111.
- B. Alternations to existed aquatic centers shall meet the provisions of this code. Replacements or repairs to existing systems or its components shall not be required to meet the provisions unless such work will cause an existing pool to become unsafe, unsanitary, a nuisance, or hazardous to public health or safety.

Section 233.111 Retroactive Structural Provisions

- A. Retroactive main drain requirements:
- (1). All public and semipublic swimming aquatic centers on the effective date of this code and equipped with a single main drain shall:
 - (a) Install a properly sized anti-entrapment cover that complies with ANSI/ASME A112.19.8M, "*Suction Fittings for Use In Swimming Pools, Spas, Hot Tubs And Whirlpool Bathtub Appliances*" on all suction outlets by January 1, 2009.
 - (b) Install a hydraulically balanced dual main drain at the time that the pool is resurfaced or install a Safety Vacuum Release Device (SVRD) or Safety Vacuum Release System (SVRS) that meets ANSI/ASME A112-19 Standards or equivalent by January 1, 2009.
 - (c) Install other devices or means as approved by the Department by no later than January 1, 2009.



- B. Retroactive fencing requirements for aquatic centers:
 - (1). Public swimming pools, special use pools, spas and wading pools on the effective date of this code shall comply with fencing requirements in by January 1, 2009.
 - (2). Public swimming pools, special use pools, spas and wading pools on the effective date of this code that do not meet the requirements in Appendix C on the effective date of this code shall comply with fencing requirements in by January 1, 2009.
 - (3). Retroactive fencing requirements for Semipublic aquatic centers:
 - (a). Semipublic swimming pools, special use pools, spas and wading pools who were in operating status on the effective date of this code that do not meet the requirements in Appendix D on the effective date of this code shall comply with fencing requirements in by January 1, 2009.

- C. Retroactive diving board requirements:
 - (1). All public and semipublic aquatic centers who were in operating status on the effective date of this code, and having met the requirements of the code for a diving board in force at the time of construction may continue to operate a diving facility under the following conditions:
 - (a). The pool was approved for construction prior to January 1, 2009.
 - (b). The height of the diving board above the water surface shall be limited to a maximum of ten (10) feet (three (3) meters).
 - (c). If the pool and diving board do not meet the dimensional requirements in Appendix A or Appendix B, diving must be under the direct supervision of a lifeguard or other responsible party and the pool owners shall provide and maintain on file with St. Charles County a current certificate of public liability insurance documenting minimum limits of seven million dollars (\$7 million) combined single limit for bodily injury and property damage liability. The certificate must further clearly indicate that the St. Charles County is an additional insured and that no changes or modifications shall become effective in the coverage without 30 days prior written notice submitted to the Department.

- D. Retroactive vacuum outlet requirements: Public and semipublic aquatic centerson the effective date of this code shall comply by January 1, 2010.

Section 233.112 Variance

- A. Purpose



The purpose of this regulation is to allow the Director to consider granting a variance from those parts of Chapter 233.

- B. Conditions for Variance
 - (1). Any person may request a Variance to Chapter 233 of this Code when it is claimed that:
 - (a). The true intent of the Codes or Ordinances described in this Code has been incorrectly interpreted by the Department; or
 - (b). A decision by the Department is unreasonable or arbitrary when it is applied to alternate or new materials.

Section 233.113 Inspections

- A. An inspector from the Department, upon presentation of credentials, may enter into any public or semipublic aquatic centers to determine compliance with this code. The inspector may inspect records, equipment and facilities, take photographs and take other action reasonably necessary to determine compliance with this Code.
- B. The owner or manager of public or semipublic aquatic centers may accompany the inspector during an inspection.
- C. An inspector from the Department may inspect a public or semipublic aquatic center during reasonable working or operational hours without giving prior notice of the inspection to the owner or operator of the swimming pool or spa.
- D. All initial inspections shall be required to have a follow-up inspection for the following:
 - (a) Violations as noted in §233.090
 - (b) An inspection that leads to closure.
- E. All follow-up inspections shall be subject to a follow-up fee as described in Chapter 233, Article XV.

Section 233.120 Pool Operator Certification

- A. All permitted aquatic centers shall have a minimum of one (1) nationally certified pool operator on staff. This individual shall:
 - (a). Be present on property thirty-three percent (33%) of operating time.
 - (b). Be directly responsible for maintaining the cleanliness, water quality and chemical balance of the aquatic center.



- B. An individual who services an aquatic center by maintaining the cleanliness, water quality and chemical balance of public aquatic centers shall be certified. To be certified an individual must demonstrate knowledge of aquatic centers. Examples of such knowledge include: pool cleaning, general pool maintenance, make-up water supply, bacteriological, chemical and physical quality of water and water purification, testing, treatment, and disinfection procedures. To ensure that the pool technicians are knowledgeable, said technician shall attend a training course of national recognition that is approved by the department of at least 16 hours in length and shall pass a test acceptable to the department. Certification is conferred upon an individual and is nontransferable. A certified pool technician may not affect the structural integrity of the pool or equipment, and shall not delegate work to others, including employees, that are not themselves certified under this section.
- (a). Training shall include the following study topics:
 - (i.) Swimming pool calculations;
 - (ii.) Filter type and filtration circulation;
 - (iii.) Water chemistry – balancing & testing;
 - (iv.) Spas and warm water pools;
 - (v.) Pool and spa maintenance;
 - (vi.) Operational and safety requirements 2; and
 - (vii.) St. Charles County Government Aquatic and Recreational Facility Code- specific to aquatic centers.
 - (b) Course materials must be provided that cover the required topics in detail. The course approval shall be contingent upon their meeting the items listed in subsection (1) above. The test approval shall be contingent upon all of the questions being related to the subject areas listed in §233.120(B)(a) above.
 - (c) The Department shall deem certified any individual who has been proven certified by a course of national recognition.
 - (d) Proof of certification shall be posted conspicuously in the equipment room of each pool serviced or must otherwise be available for inspection by the department.
 - (e) Section 233.120 should be required on the effective date of Chapter 233 and shall be required as of January 01, 2010.
 - (f) Internet based classes- reserved
- C. Within thirty (30) days of opening a permitted aquatic center an individual who services an aquatic center must provide proof of attendance at a Blood-borne Pathogen training program (or equivalent) approved by the Department. During the said thirty (30) days, said individual shall become familiar with this Chapter, undergo in-house training and familiarize themselves with the information available from the Department concerning Hepatitis B and C. Subsequently, the



operator must attend a Blood-borne Pathogen training program (or equivalent) at least once every three (3) years or that deemed required by the certifying program (if less than three (3) years).

Section 233.122 Applicability

- A. This code applies to all public and semipublic aquatic centers.
- B. Chapter 233 does not apply to any of the following:
 - (a). A private residential swimming pool or spa;
 - (b). Natural and semi-artificial aquatic units;
 - (c). An aquatic center or recreational facility used for medical treatment or physical therapy and supervised by licensed medical personnel;
 - (d). Swimming pools and spas constructed and operated by the United States government;
 - (e). Swimming pools and spas constructed and operated by the State of Missouri; or
 - (f). A spray pond that utilizes potable water and does not have a recirculation system.



ARTICLE II: WATER QUALITY STANDARDS

Section 233.130 Quality of Water

- A. Aquatic center water shall be treated and maintained so that whenever the aquatic unit is open for use, the bacterial, chemical and physical quality of the water meets the standards set forth in this code.

Section 233.140 Water Source

- A. An operator of a public or semipublic aquatic center shall ensure that the aquatic unit is filled only with potable water from an approved source.

Section 233.150 Bacterial Standards

- A. Not more than 15 percent (15%) of the water samples collected from a pool shall:
 - (1). Contain more than 200 bacteria per milliliter as determined by the standard (35°C [95°F]) agar plate count, or
 - (2). Show a confirmed positive test for coliform organisms in any of the five (5) - ten (10) milliliter portions of a sample or more than one (1) coliform organism per 50 milliliters when the membrane filter test is used. All samples shall be collected, de-chlorinated, or similarly neutralized when another disinfectant is used, and examined in accordance with the procedures outlined in the latest edition of "Standard Methods for the Examination of Water and Wastewater". The Department may collect, or require the owner to collect and submit water samples at cost for bacteriological examination on a routine basis while it is in active use.



Section 233.160 Chemical Standards

- A. Aquatic units shall be continuously disinfected by an approved means, which will maintain an adequate and readily measurable residual of disinfectant in the water.
 - (1). Aquatic centers shall meet the following water chemistry parameters:

Parameter	Min.	Ideal	Max.	Aquatic Unit (type)
Free Chlorine (ppm or mg/L)	1.0	2.0-4.0	5.0	Pools, Waterparks
	2.0	3.0-5.0	10.0	Spas
Combined Chlorine (ppm or mg/L)	0	0	0.2	Pools, Waterparks
	0	0	0.5	Spas
Total Bromine (ppm or mg/L)	2.0	4.0-6.0	10.0	All Types
pH	7.2	7.4-7.6	7.8	All Types
Total Alkalinity as CaCO ₃ (ppm or mg/L)	60	80-100*	180	All Types
		100-120**		

* For calcium hypochlorite, lithium hypochlorite, or sodium hypochlorite

** For sodium dichlor, trichlor, chlorine, gas, BCDMH

- (2). The procedure for determination of free chlorine residual shall be by the DPD method or any of the other procedures outlined in the latest edition of "Standard Methods for Examination of Water or Wastewater"

Section 233.170 Physical Standards

- A. The surface of the pool water shall be kept free of scum and floating debris. The bottom and sides shall be maintained free of sediment, dirt, slime and algae. Water shall be maintained free of turbidity and shall be sufficiently clear so that the main drain outlet is clearly visible to an adult standing on the pool deck, or that a Secchi Disk 200 mm in diameter when placed at the bottom of the pool at the deepest point is clearly visible to an adult standing on the pool deck.
- B. The temperature of heated water coming into an aquatic center shall not exceed 104°F (40°C).

Section 233.180 Reserved.

Section 233.190 Tests

- A. All pools and spas shall be equipped with approved test equipment to determine pH, disinfectant residual, total alkalinity and temperature. The chemical disinfection level, pH, total alkalinity, and temperature of the



water shall be tested at least once daily. Log shall be on the premises and an operating log that includes the results of these tests shall be maintained for 24 months and made available to the Department, any other regulatory authorities, or a member of the public upon request

Section 233.200 Fecal Contamination in Aquatic Centers

- A. Should a fecal accident occur, the pool operator or owner shall consider the Centers for Disease Control's (CDC) "Fecal accident response recommendations for pool staff" found on the internet web site:
<http://www.cdc.gov/healthyswimming/fecalacc.htm>



ARTICLE III: GENERAL DESIGN STANDARDS AND SPECIFICATIONS

Section 233.210 Materials

- A. A public or semipublic swimming pool or spa shall be constructed of concrete or other structurally rigid material that is equivalent in strength and durability to concrete, except that a public or semipublic spa may be constructed of fiberglass or acrylic.
- B. A surface within a public or semipublic swimming pool or spa intended to provide footing for users shall have a slip-resistant surface. The roughness or irregularity of the surface shall not cause injury or discomfort to users' feet during normal use.
- C. The materials and construction of a public or semipublic swimming pool shall be sound, durable and, where required, waterproof. The pool shall be constructed of materials that are rigid, nontoxic, smooth, free from cracks, easily cleanable and finished in white, pastel or other light colors. The color, pattern or finish of the interior of a public or semipublic swimming pool or spa shall not obscure objects, surfaces within the swimming pool or spa, debris, sediment or algae. Corners shall be rounded. Pool linings, specifically plastic and similar linings, and finishes not totally bonded to the pool sides and bottom are prohibited.

Section 233.220 Shape

- A. A public or semipublic swimming pool or spa may be any shape except that the designer shall shape a public or semipublic swimming pool or spa to minimize hazards to users and provide adequate circulation of swimming pool or spa water.
- B. There shall be no protrusions, extensions, and means of entanglement or other obstructions in a public or semipublic swimming pool or spa that may cause entrapment of or injury to the user. This subsection does not prohibit water features such as water fountains, slides, and water play equipment or water volleyball and basketball nets.
- C. Where a racing lane terminates in an aquatic center used for competitive racing, the wall shall be plumbed to a minimum depth of five (5) feet below the waterline. Below the five (5)-foot depth, the wall shall be radius-ed to join the floor. This subsection does not pertain to lanes that are used for general lap swimming.



- D. The minimum average width of a semipublic pool shall be 14 feet. The average width shall be calculated by dividing the surface area by the total length of the pool as noted in Appendix B.
- E. Coping or cantilevered deck may project from a swimming pool or spa wall to provide a handhold for users. The coping or deck shall be rounded, have a slip-resistant surface and shall not exceed three and one-half (3½) inches in thickness. The overhang of the coping or deck shall not exceed two (2) inches or be less than one (1) inch. All corners created by coping or cantilevered deck shall be rounded in both the vertical and horizontal dimensions to eliminate sharp corners.
- F. Floors:
- (1). The slope of the floor of a public or semipublic swimming pool, from the end wall in the shallow area towards the deep area to the point of the first slope change, shall be uniform and shall not exceed one (1) foot of fall in ten (10) feet. The floor slope in a public or semipublic spa shall not exceed one (1) foot of fall in ten (10) feet.
 - (2). The floor slope of a public or semipublic swimming pool, from the point of the first slope change to the deepest part of the swimming pool, shall not exceed one (1) foot of fall in three (3) feet. For public or semipublic swimming pools, the depth of the swimming pool at the point of the first slope change shall be a minimum of five (5) feet.
 - (3). All portions of a swimming pool or spa floor shall slope towards a main drain.
 - (4). The transitional radius where the floor of a public or semipublic swimming pool joins a wall shall comply with all the following:
 - (a) The center of the radius shall be no less than three (3) feet below the waterline in the deep area or two (2) feet below the waterline in the shallow area,
 - (b) The radius shall be tangent at the point where the radius meets the wall or floor, and
 - (c) The radius shall be equal to or greater than the depth of the swimming pool minus the vertical wall depth measured from the waterline minus three (3) inches.

Section 233.230 Fill and Draw Pools

- A. The construction and operation of fill and draw pools is prohibited.



Section 233.240 Water Recirculation and Filtering System

- A. General - The water recirculation system, consisting primarily of piping, pumps, filters, water conditioning and disinfecting equipment, together with other standard accessory equipment, shall be adequate to clarify and disinfect the entire contents of the pool within six (6) hours or less. Water withdrawn shall not be returned to the pool unless it has been filtered and otherwise treated in an approved manner except that water may be withdrawn from a swimming pool for a water slide or a water feature without being filtered or disinfected as approved by the Department.
- B. The water recirculation system shall be designed to provide a minimum of four turnovers of the pool volume per day. Pools that are less than 1000 square feet at fitness centers shall be required to provide eight turnovers per day.
- C. The water recirculation system shall be adequate to filter and disinfect the entire contents of the pool within six (6) hours or less. Bypassing chemical feeders or other similar devices may be exempted from this requirement with the approval of the Department.
- D. The water recirculation system shall operate continuously.

Section 233.250 Piping

- A. Piping systems shall be:
 - (1). Designed to carry the required quantity of water at a velocity of not more than ten (10) feet per second when located on the discharge side of a pump, except for copper discharge piping where the velocity shall not exceed eight (8) feet per second, and not more than six (6) feet per second when located on the suction side of a pump.
 - (2). Of sufficient strength to withstand 150 percent of normal operating pressures.
 - (3). Made of non-toxic materials.
 - (4). Reasonably resistant to corrosion under conditions of operation.
 - (5). Installed so that pipe and fittings, which pass through the pool structure, shall not project in a manner, which is hazardous to users of the facility.
 - (6). Comply with the sizes and flow rates shown in the following table unless accompanied by an approved hydraulic design.



Maximum Flow Rates (C=140) Schedule 40 PVC							
PIPE SIZE	1 ¼"	1 ½"	2"	2 ½"	3"	4"	6"
GPM PRESSURE SIDE	25	60	90	140	220	350	800
GPM PRESSURE SIDE, COPPER	20	48	72	96	176	280	640
GPM SUCTION SIDE	15	35	50	80	140	220	450

- (7). Plastic water circulation piping shall comply with American National Standards Institute/NSF, International Standard Number 14, "Plastics Piping System Components and Related Materials," NSF International, which is incorporated by reference .
- (8). A licensed contractor shall conduct an induced static hydraulic pressure test of the water circulation system piping at 25 pounds per square inch for at least 30 minutes. The pressure test shall be performed before the deck is poured. Pressure in the water circulation system piping shall be maintained during the deck pour.
- (9). Piping systems shall be identified by nametags, labels or appropriate colors painted or located at conspicuous points.

Section 233.260 Total Dynamic Head

- A. The total dynamic head of the recirculation system shall be calculated. In lieu of calculating the total dynamic head, the Department may allow the following table to be used:

DISTANCE FROM THE MAIN DRAIN TO THE PUMP	TOTAL DYNAMIC HEAD (TDH)
1' – 25'	55
26' – 50'	60
51' – 75'	65
76' – 100'	70
101' – 125'	75
126' – 150'	80
BEYOND 150'	CALCULATIONS ARE REQUIRED

Section 233.270 Reserved.

Section 233.280 Pumps and Motors

- A. A pump and motor shall be provided for each water circulation system. The pump shall be sized to meet but not to exceed the flow rate required for filtering against the total head developed by the complete



water circulation system. The pump shall be sized to comply with the turnover rates prescribed in Chapter 233; Article VI – IX.

- B. Pumps and motors shall be readily and easily accessible for inspection, maintenance, and repair. When the pump is below the waterline, valves shall be installed on permanently connected suction and return lines. The valves shall be readily and easily accessible for maintenance and removal for any of the circulation components.
- C. Each motor shall have an open, drip-proof enclosure. Each motor shall be constructed electrically and mechanically to perform satisfactorily and safely under the conditions of load in the environment normally encountered in swimming pool or spa installations. Each motor shall be capable of operating the pump under full load with a voltage variation of plus or minus ten ($\pm 10\%$) percent from the nameplate rating. Each motor shall have thermal or current overload protection to provide locked rotor and running protection. Thermal or current overload protection may be built into the motor or in the line starter.
- D. The pump shall be equipped with an emergency shut-off switch that is located within the swimming pool or spa enclosure to cut off power to the water circulation system if someone is entrapped on a main drain or suction outlet.
- E. The emergency shut-off switch must be clearly labeled.

Section 233.290 Hair Strainer

- A. Pumps that take suction prior to filtration shall include a removable strainer located upstream from the pump to prevent solids, debris, hair, lint, etc. from reaching the pump and filters. Strainers shall be of corrosion-resistant material, with openings having a total area equal to four times the area of the recirculation pump suction pipe.

Section 233.300 Pool Water Cleaning System

- A. A vacuum cleaning system shall be provided for public and semipublic aquatic units with the exception of hydrotherapy pools.
- B. Vacuum outlets shall be provided with covers, which automatically close and automatically latch and can only be opened with the use of a tool. The covers must be securely closed and latched when the pool is in use.
- C. The cleaning system provided shall not create a hazard or interfere with the operation or use of the pool. In integral systems, connections shall



be provided in sufficient numbers and located in the pool walls at least ten (10) inches below the water line. In addition, automatic or self-cleaning systems may be installed as approved by the Department.

Section 233.310 Inlets

- A. Adjustable pool wall inlets shall be provided on all pools. Inlets shall be of sufficient number, properly designed, sized and installed to produce uniform circulation throughout the pool. There shall be a minimum of six (6) inlets, spaced not more than 15 feet apart as measured along the pool periphery. At least one (1) inlet shall be located within five (5) feet of each corner and in each step alcove. Inlets shall be on a closed loop piping system. Bottom returns shall be flush with the pool bottom or of such design as to prevent injury to bathers. Bottom returns will be considered to have an area of influence described by a radius of 15 feet. Public or semipublic spas with three (3) or more return inlets shall be on a closed loop piping system.

Section 233.320 Drains

- A. Pools shall be equipped with at least two (2), main drains located in the deepest portion that are separated by a minimum of three (3) feet and that are constructed to prevent suction entrapment under all operating conditions. Each drain shall be covered by an anti-vortex cover or an approved grate that has a minimum diagonal measurement of 24 inches, which is not readily removable by bathers and has safe openings of at least four (4) times the area of the drain pipe.
- B. Drains shall be spaced at intervals of not greater than one (1) each 20 feet of pool width in the deepest portion and not more than 15 feet from each side wall.
- C. A minimum of two (2) suction outlets shall be provided for each pump in a suction outlet system for a public or semipublic pool or spa. The suction outlets shall be separated by a minimum of three (3) feet or located on two (2) different planes (i.e. one suction outlet on the bottom and one (1) on a vertical wall or one (1) suction outlet each on two (2) separate vertical walls) as long as the three (3) foot separation is always maintained. The suction outlets shall be plumbed to draw water through them simultaneously through common line to the pump. Suction outlets shall be plumbed to eliminate the possibility of entrapping suction, and be equipped with an approved anti-vortex cover.
- D. The total velocity of water through grate openings of the drain shall not exceed one and one-half (1 1/2) feet per second.



- E. No check valve may be installed between a suction outlet and a pump.
- F. Main drain outlet grates shall be flat and flush with the surrounding area except that main drain grates and fittings in vinyl liner and fiberglass pools shall not extend more than 3/8 inches above the pool floor.

Section 233.330 Flow Meter

- A. All aquatic centers shall be equipped with a flow meter that indicates the rate of backwash through the filter. The flow meter shall be installed on a straight section of pipe in accordance with the manufacturer's specifications in a location where it can be read easily. The flow meter shall measure the rate of flow through the filter in gallons per minute and shall be accurate to within five (5) percent under all conditions of flow. The flow meter shall have an indicator with a range of at least 150 percent of the normal flow rate.

Section 233.340 Sight Glass

- A. Pressure filter systems shall be equipped with a sight glass installed on the waste discharge pipe.

Section 233.350 Air Relief Values

- A. Pressure-type filters shall be equipped with a means to release internal pressure. Each pressure filter shall be equipped with an air relief piping system connected at an accessible point near the crown. Automatic air relief systems may be used instead of manual systems. The design of a filter with an automatic air relief system as its principal means of air release shall include lids that provide a slow and safe release of pressure. The design of a separation tank used in conjunction with any filter tank shall include a manual means of air release or a lid which provides a slow and safe release of pressure as it is opened.

Section 233.360 Access to Equipment

- A. Filters shall be designed, located and constructed to permit removal of filter manhole covers or heads for inspection purposes and replacement or repair of the filter elements or media. No filter or filtration system shall be installed beneath the surface of the ground or within any enclosure without adequate provision of access for inspection and maintenance.



Section 233.370 Filtration Rate – Sand

- A. The rate of filtration in high-rate sand filters shall not exceed an equivalent of 20 gallons per-minute per-square foot. Sufficient surface area of filter media shall be provided to achieve this rate.

Section 233.380 Filtration Rate – Diatomaceous Earth

- A. The rate of filtration of diatomaceous earth filters shall not exceed two (2) gallons per-minute per-square foot of effective surface area.

Section 233.390 Filtration Rate – Cartridge Type

- A. The rate of filtration of cartridge filters shall not exceed 0.375 gallons per-minute per-square foot.

Section 233.400 Acceptable Filters

- A. Aquatic center filters shall comply with American National Standards Institute/NSF International Standard Number 50, "Circulation System Components and Related Materials for Swimming Pools, Spas / Hot Tubs," NSF International. Filters shall be designed, located, and constructed to permit removal of filter manhole covers or heads for inspection, replacement or repair of filter elements or filter media. No filtration system shall be installed beneath the surface of the ground or within an enclosure without providing adequate access for inspection and maintenance. The maximum filtration rate shall not exceed the design flow rate prescribed by the ANSI/NSF Standard 50 for Commercial Filters. In no case shall the maximum filtration rate exceed the rates specified in this section.

Section 233.410 Gauges

- A. Pressure gauges shall be installed on the inlet side of the pump, and the inlet and outlet manifold of the filters. Such gauges shall read at one (1) pound pressure intervals or in inches of mercury/vacuum.

Section 233.420 Reserved.

Section 233.430 Cross Connection Control

- A. Cross-connections between potable water piping and the recirculation system or water reservoir of any pool are prohibited. Potable water for make up water purposes may only be introduced into the reservoir:



- (1). Across an air gap of at least twice the diameter of the pipe, not less than six (6) inches above the overflow level. If an over-the-rim spout is used, it shall be located so that it does not present a tripping hazard; or
- (2). Three (3) inches above the overflow rim of a float controlled make up water feed tank; or
- (3). By a submerged inlet which is properly protected against back siphonage by a backflow prevention device meeting University of Southern California Foundation for Cross Connection Control and Hydraulic Research.

Section 233.432 Pool Waste Water Disposal

- A. Pool waste water shall be discharged through an air gap; disposal shall be to sanitary sewers, storm sewers, drainfields, or by other means, in accordance with local municipal and building official requirements including obtaining all necessary permits. Each waste line shall have a unique air gap. Waste lines from different sources (e.g. pool, spa, overflow, sump pump) shall not be tied together, but may discharge into a common sump or receptacle after the air gap.
- B. Disposal of water from pools using D.E. powder shall be accomplished through separation tanks which are equipped with air bleed valves, bottom drain lines, and isolation valves, or through a settling tank with final disposal being acceptable to local authorities. D.E. separator tanks shall have a capacity as rated by the manufacturer, equal to the square footage of the filter system.
- C. All lines shall be sized to handle the expected flow. There shall not be a direct physical connection between any waste or drain line from a pool or recirculation system and any a sewer line. Waste D.E. powder shall be collected and disposed of in a manner acceptable to local authorities and solid waste collectors.

Section 233.440 Signs

- A. Caution Signs: A sign visible and legible from the spa shall be provided. It shall state:
 - "CAUTION
 - A. Elderly persons, pregnant women, infants and those with health conditions requiring medical care should consult with a physician before entering a spa.
 - B. Unsupervised use by children under the age of 18 is prohibited.



- C. Hot water immersion while under the influence of alcohol, narcotics, drugs, or medicines may lead to serious consequences and is not recommended.
- D. It is recommended that spa is not used alone.
- E. Long exposure may result in nausea, dizziness or fainting. "

B. Bather Load

(1). Pools. A sign with clearly legible letters not less than four (4") inches high shall be posted in a conspicuous place within the pool enclosure or near the main entrance that shall indicate the number of bathers permitted for each pool.

(a). Bathing load shall be determined according to the following equations:

(i). Shallow Area Bathing Load.

$$\text{Bather load} = (\text{surface area of water}) \div (15 \text{ ft}^2 \text{ per bather})$$

(ii). Deep Area Bathing Load.

$$\text{Bather load} = (\text{surface area of water}) \div (25 \text{ ft}^2 \text{ per bather})$$

(2). Spas. A sign with clearly legible letters not less than four (4") inches high shall be posted in a conspicuous place within the spa enclosure or near the main entrance that shall indicate the number of bathers permitted for each spa.

(a). Spa user capacity shall be determined according to the following equation:

(i). Spa Bathing Load.

$$\text{Bathing load} = (\text{surface area of water}) \div (10 \text{ ft}^2 \text{ per bather})$$

C. Warning Signs - Where no lifeguard service is provided, the warning sign shall be placed in plain view and should state, with clearly legible at least four inches (4") high letters

"WARNING - NO LIFEGUARD ON DUTY"

In addition, the sign shall also state:

"Children Under the Age of 18 Should Not Use Pool Without an Adult in Attendance."

(1). Where the water depth is less than 5 feet (shallow pool), a warning sign shall be posted in plain view and state, "NO DIVING ALLOWED" with clearly legible letters, at least four inches (4") high.

(2). A sign posted in a conspicuous place shall state "Notify the manager or operator on duty if the main drain is not visible."

(3). A sign posted in a conspicuous place shall state:

"To register a complaint about the condition of this pool, contact St. Charles County at (636) 949-1800."



Section 233.441 Emergency Telephone

- A. Emergency Telephone and Emergency Contact List. A telephone shall be accessible during all hours of operation in the vicinity of a public water recreation facility or within a 300 foot walking distance from an entrance to swimming facility enclosure. At a multi-level facility, the emergency telephone shall be located within three levels of the level on which the swimming facility is located. The telephone numbers of the local police, fire department, physician, ambulance service, and a hospital, or 911 where applicable, shall be posted in a conspicuous place near the telephone. The name, address and telephone number of the swimming pool facility shall be listed by the telephone. The location of the emergency telephone shall be posted in the swimming pool facility unless the telephone is located in the pool area.

Section 233.442 Seasonal Operation Requirements

- A. Seasonal closing of the pool shall be allowed when all of the following exist:
 - (1). A sign is posted that the pool/spa is closed;
 - (2). The gates are locked shut, and
 - (3). The Department is notified in writing of any such closure.

Section 233.450 Roof Drain Water

- A. Rain water draining from any structure must be diverted away from the swimming pool and pool deck to a suitable point of disposal.



ARTICLE IV. WATER CIRCULATION, DISINFECTION AND CHEMICAL CONDITIONING

Section 233.460 Water Circulation System

- A. A public or semipublic swimming pool or spa shall have a water circulation system that provides complete circulation of water through all parts of the swimming pool or spa and can maintain water chemistry and water clarity requirements.
- B. The water circulation system for a public or semipublic swimming pool shall provide a minimum of four turnovers of the pool volume per day. Pools that are less than 1000 square feet at fitness centers shall be required to provide eight turnovers per day. The water circulation system of a public or semipublic spa shall have a turnover rate of at least once every 30 minutes. The water circulation system for a wading pool shall have a turnover rate of at least once every one (1) hour. The water circulation system shall be designed to give the proper turnover rate without exceeding the maximum filtration rate for the filter.
- C. Water circulation system components shall comply with American National Standards Institute/NSF International Standard Number 50, "Circulation System Components and Related Materials for Swimming Pools, Spas / Hot Tubs," NSF International, which is incorporated by reference.
- D. Water circulation system components shall be accessible for inspection, repair, or replacement.
- E. Water withdrawn from a public or semipublic aquatic center shall not be returned unless it has been filtered and adequately disinfected except that water may be withdrawn from a swimming pool for water slide(s), water feature(s), or a water fountain(s) without being filtered or disinfected as approved on a case-by-case basis by the Department.
- F. In an aquatic center with more than one (1) swimming pool or where there is a combination of swimming pools and spas, each swimming pool and spa shall have a separate water circulation system.
- G. Hydrotherapy jets or other devices which create roiling water or similar effects in a spa shall not be connected to the water circulation system, but shall be operated through a separate system.



Section 233.470 Disinfection Agents

- A. Effective water disinfection shall be provided and maintained in all aquatic centers. This shall be accomplished by chlorination or other approved methods which will effectively maintain an adequate, amount of the disinfectant introduced into the water which is subject to field testing by methods that are easy to use and accurate. Timers on disinfection equipment are prohibited. The addition of dry or liquid disinfectant directly into a public or semipublic aquatic unit for routine disinfection is prohibited. This prohibition does not prohibit the use of liquid or dry disinfectants for shock treatment of a swimming pool or spa.

Section 233.480 Gaseous Disinfectants

- A. When gaseous chlorine is used, the following additional features shall be provided:
- (1). The chlorinator, chlorine cylinders and associated chlorination equipment shall be located in a separate well-ventilated enclosure at or above ground level. The enclosure shall be reasonably gas-tight, noncombustible and corrosion-resistant. The door of the enclosure shall open to the outside and shall not open directly toward the swimming pool.
 - (2). If chlorination equipment is placed in a room, then an exhaust fan or gravity ventilation system shall be provided. Mechanical exhausters shall take suction six (6) inches or less above the floor and discharge through corrosion-resistant louvers to a safe outside location. A gravity ventilation system shall be designed and constructed to discharge to the outside from floor level. Fresh air intakes shall be located no closer than three (3) feet above the ventilation discharge. Chlorine room exhausts shall be directed away from the swimming pool to an area, which is normally unoccupied. Chlorine room fans shall be capable of completely changing the air in the room at least once per minute.
 - (3). Electrical switches to control lighting and ventilation in the chlorine room shall be located on the outside of the enclosure and adjacent to the door.
 - (4). Chlorine cylinders shall be kept in an upright position and securely anchored to prevent them from falling. Chlorine cylinders may be stored indoors or outside. If stored outside, chlorine cylinders shall not be stored in direct sunlight. Chlorine cylinders shall not be stored near an elevator, ventilation system or heat source.
 - (5). A warning sign shall be placed on the outside of the door to the chlorine room, which cautions persons of the danger of chlorine gas within the enclosure. The warning shall be in letters three (3)



- inches high or larger. The door to the chlorine room shall be provided with a shatter resistant inspection window.
- (6). Chlorinators shall be a solution-feed type, capable of delivering chlorine at its maximum rate without releasing chlorine gas to the atmosphere. Chlorinators shall be designed to prevent the backflow of water into the chlorine solution container.
 - (7). Facilities that provide chlorine containment and chlorine scrubber units approved by the local regulatory agency are considered in compliance with sections (1) and (2) of §233.480
 - (8). A common chlorine gas disinfection system may be utilized in separate swimming pools if separate metering and feeding devices are provided for each swimming pool.
 - (9). The addition of gaseous disinfectant directly into a public or semipublic swimming pool is prohibited. A chlorine gas disinfection system shall not be used for the disinfection of water in a public or semipublic spa.

Section 233.490 Liquid Disinfectants

- A. Hypochlorite solutions shall be fed by an acceptable type of hypochlorinator.

Section 233.500 Reserved.

Section 233.501 Dry Disinfectants

- A. Granular, tablet, stick and other forms of dry disinfectant shall be fed by an adjustable automatic feeding device.

Section 233.510 Disinfection Equipment

- A Disinfection equipment and chemical feeders shall comply with the requirements set forth in American National Standards Institute/NSF International Standard 50, "Circulation System Components and Related Materials for Swimming Pools, Spas / Hot Tubs," NSF International,.

Section 233.520 Chemical Feeders

- A. Chemical feeders, mixing tanks and other equipment may be required where the continuous addition of certain chemicals is deemed by the Department to be necessary for the treatment and filtration process.
 - (1). An adjustable automatic chemical feeder shall be provided to ensure the continuous disinfection of the water in a public or semipublic aquatic center. Timers on disinfection equipment are prohibited. Disinfection shall be accomplished by chlorination or by



other methods that are approved by the Department. The method of disinfection shall effectively maintain an adequate disinfectant residual in the water which is subject to field-testing by other methods that are easy to use and accurate.

- (a). Chlorine disinfection equipment for a public or semipublic swimming pool shall be designed to maintain a free chlorine residual of 1.0 PPM to 5.0 PPM. Chlorine disinfection equipment for a public or semipublic spa shall be designed to maintain a free chlorine residual of 2.0 PPM to 10.0 PPM.
 - (b). Bromine disinfection equipment for a public or semipublic swimming pool shall be designed to maintain a bromine residual of 2.0 PPM to 10.0 PPM. Bromine disinfection equipment for a public or semipublic spa shall be designed to maintain a bromine residual of 2.0 PPM to 10.0 PPM.
- (2). The use of chlorinated isocyanurates or cyanuric acid stabilizer for disinfection and stabilization is permitted. If used, chlorinated isocyanurates shall be fed so as to maintain required disinfectant residual levels. Cyanuric acid levels, whether from chlorinated isocyanurates or from the separate addition of cyanuric acid stabilizer, shall not exceed 100 PPM.
 - (3). The use of chloramines as a primary disinfectant of swimming pool or spa water is prohibited.
 - (4). Metering and feeding devices should be provided for each swimming pool.
 - (5). Disinfection equipment and chemical feeders shall comply with the requirements set forth in American National Standards Institute/NSF International Standard 50, "Circulation System Components And Related Materials For Swimming Pools, Spas / Hot Tubs," NSF International, which is incorporated by reference.
 - (6). If a chemical feeder is used, it shall be installed to inject solution downstream from the filter and the heater. An erosion-type feeder may be installed to feed solution to the suction side of the pump. A chemical feeder shall be installed so it cannot operate unless the filter pump is running.



ARTICLE V. BATHHOUSE AND DRESSING ROOM FACILITIES

The regulations in this section shall apply to all aquatic centers.

Section 233.530 For All Aquatic Centers

- A. The general layout of bathhouses shall be such that bathers leaving the dressing room pass the toilets and showers in sequence before entering the pool.
- B. Separate dressing rooms shall be provided for each sex and equipped with baskets or other checking facilities adequate for the maximum number of people to be accommodated.
- C. All entrances to, and exits from, the dressing rooms shall be effectively screened to interrupt the line of sight of persons outside the dressing rooms.
- D. Walls and partitions of dressing rooms, locker rooms, toilets and showers shall be light colored, smooth, nonabsorbent and easily cleanable. Concrete or pumice blocks used for interior wall construction in these locations shall be finished and sealed to provide an easily cleanable surface. Partitions shall be designed so that a waterway is provided between partitions and the floor to permit thorough cleaning of the walls and floor areas with hoses and brooms.
- E. Floors shall be of non-slip construction, free of open cracks and sloped to adequate drains so that the surface will be free of standing water and puddles. Floors shall be sloped not less than one-fourth (1/4) inch per one (1) foot toward the drains to ensure positive drainage. Carpeting is prohibited.
- F. All furniture shall be of simple character and easily cleanable. Locker compartments, partitions, booths, furniture and other appurtenances to dressing rooms shall be so installed or raised above the floor to permit thorough cleaning and flushing down the dressing rooms and bathhouse interior.
- G. An adequate number of hose bibbs shall be provided for flushing down the dressing rooms and bathhouse interior. Hose bibbs shall be provided in the bathhouse so that all parts of the floor and walls may be reached with a 50-foot hose. Hose bibbs shall be protected against back siphonage with an atmospheric vacuum breaker. The Department may approve quick disconnect style hose bibbs.



- H. Dressing rooms, toilets and showers shall be provided with adequate lighting and ventilation. Toilet facilities shall be provided for each sex in accordance with the table below:

Men	One (1) toilet and one (1) urinal shall be provided for each 100 bathers or fraction thereof.
Women	<p>a) One (1) toilet shall be provided for each 50 bathers or fraction thereof, but in no case shall be less than two (2) toilets provided.</p> <p>b) Sanitary napkin dispensers and a covered waste receptacle shall be installed in toilet or shower areas designed for female users.</p>

- J. Shower and hand washing facilities with hot and cold water and soap shall be provided for each sex in accordance with the table below. Tempered water only shall be provided at all showerheads. The water heater and thermostatic mixing valve shall be inaccessible to bathers and shall be capable of providing two (2) gallons per minute of 90°F water to each showerhead. The shower and hand washing facilities shall be provided for each sex in accordance with the table below:

Shower	<p>a) One (1) lavatory with unbreakable mirror for each 100 bathers or fraction thereof.</p> <p>b) A minimum of two (2) showerheads shall be provided in each dressing room.</p>
Lavatory	<p>a) One (1) lavatory with unbreakable mirror for each 100 bathers or fraction thereof.</p> <p>b) An additional one (1) lavatory and unbreakable mirror shall be provided for each additional 100 users or fraction thereof.</p> <p>c) Soap dispensers for providing either liquid or powdered soap shall be provided at each lavatory.</p> <p>d) Soap dispensers shall be made of metal or plastic with no glass permitted.</p>

- K. Drinking water from an approved source and dispensed through one (1) or more drinking fountains shall be located on the deck of each public swimming pool or spa.
- L. An establishment that operates a semipublic aquatic center and provides a private room with a toilet and lavatory, soap and hand-drying device for bathers shall be in compliance with the requirements of this Section.



ARTICLE VI. PUBLIC SWIMMING POOLS

In addition to complying with all the Regulations in Articles 1,2,3,4, and 5 of this Chapter, Public Swimming Pools shall comply with the following sections:

Section 233.540 Design Standards and Specifications

- A. Public pools shall be constructed of concrete or other material impervious to water, which is equivalent in strength and durability, with a smooth, slip-resistant surface and designed and built to withstand the anticipated stresses. All corners must be rounded. A white pastel or other light colored waterproof interior finish, which will withstand repeated brushing, scrubbing and cleaning shall completely line the pool to the coping. Pool linings not totally bonded to the pool sides and bottom, such as plastic films and similar linings and finishes, are prohibited.
- B. A pool shall have no projections, protrusions, extensions, means of entanglement or other obstructions that may cause entrapment of or injury to the user from the pool wall and floor surfaces. This does not include seats, steps, which may be constructed only in the shallow end of the pool, and ladders which may be constructed in the deep area(s) of the pool. The seat, bench and step edges shall be outlined with a sharply contrasting colored tile or other suitable material which is clearly visible from the edge of the pool adjacent to the steps. This subsection does not prohibit water features such as slides, water play equipment or water volleyball and basketball nets.
- C. An underwater seat or bench shall:
 - (1). Have edges that are outlined with a sharply contrasting colored tile or other material that is clearly visible from the deck adjacent to the underwater seat or bench;
 - (2). Have a slip-resistant surface;
 - (3). Be located outside of the deep area of a swimming pool;
 - (4). Have a maximum depth of 24 inches below the waterline and a minimum depth of 12 inches below the waterline; and
 - (5). Have a maximum width of 20 inches.
- D. Water depth and depth markers:
 - (1). Water depth shall be conspicuously and permanently marked on the walls of the pool and on the top of the coping or the edge of the deck next to the swimming pool;
 - (2). Depth markers on a vertical wall shall be positioned to be read from the waterside;
 - (3). Depth markers that are located on a deck shall be made of slip-resistant materials;



- (4). Depth markers for a public or semipublic swimming pool shall be installed at points of maximum and minimum water depth and at all points of slope change;
 - (5). Markings are required at one (1) foot depth intervals to a depth of five (5) feet, thereafter, depth markers shall be installed at two (2) foot depth intervals;
 - (6). Depth markers shall not be spaced at distances greater than 25 feet;
 - (7). Depth markers shall be located on both sides and at both ends of a public or semipublic swimming pool; and
 - (8). Depth markers shall be in Arabic numerals with a four (4) inch minimum height. Arabic numerals shall be of contrasting color to the background.
 - (9). In pools utilized for competitive swimming and training, approach-warning markings must be installed under the water level on opposite walls at the end of each swimming lane in the pool. Warning markings must be of uniform color and size on a background of contrasting uniform color. In addition, they must be clearly visible in or out of the water at all times from a distance of not less than ten (10) feet.
 - (10). The shallow area of a public swimming pool shall be visually set apart from the deep area of the pool by a rope and float line.
 - (11). The depth in the shallow portion of a pool shall not be greater than three (3' 0") feet. For a public swimming pool with a minimum depth less than twenty-four (24) inches:
 - (a) Additional circulation requirements shall be required to ensure proper water quality standards.
 - (b) Additional sign requirements shall be required to alert aquatic center users of the shallow depth.
- E. For the purposes of Chapter 233, that portion of a swimming pool five (5) feet or less in depth shall be designated as the "non-swimmer" area. That part of the pool deeper than five (5) feet shall be designated as the "swimming" area. In designing pools and computing the maximum bathing load for a public or semipublic swimming pool, areas shall be proportioned as follows:
- (1). Fifteen (15) square feet of pool surface area per bather shall be provided in the "non-swimmer" area.
 - (2). 25 square feet of pool surface area shall be provided for each swimmer in the "swimming" area.
 - (3). 300 square feet of pool surface area shall be reserved around each diving board or diving platform. This reserved area shall not be included in determining the "swimming" area.



- F. The maximum bathing load for a public or semipublic aquatic center shall not be exceeded.
- G. The maximum bathing load for a public swimming pool shall be limited by the number of users for the toilets, showers, lavatories that are provided in the bathhouses or dressing rooms prescribed in Article V, of this code.
- H. The maximum bathing load for a public or semipublic spa shall not exceed the area of the spa in square feet divided by ten (10) square feet.
- I. The maximum bathing load for a public or semipublic swimming pool or spa shall be posted in the pool enclosure.

Section 233.550 Overflow Collection Systems

- A. An overflow collection system shall be installed in all public pools.
 - (1). The overflow system shall be designed and constructed so that the level of the pool is maintained at the mid-point of the operating range of the skimmers.
 - (2). Rim type overflow systems where used shall be installed on at least two (2) opposite sides and have a total length of at least 50 percent of the perimeter of the pool. The system shall be capable of carrying 50 percent of the design capacity of the recirculating system. The surge tank shall be equipped with float controls regulating the main drain, fill line and overflow. It shall have a capacity in gallons equal to the surface area of the pool measured in square feet. The surge tank may be incorporated into the gutter.
 - (3). Overflow gutters, where used, shall be installed continuously around pools with the lip of the gutter level throughout its perimeter. They shall be provided with sufficient opening at the top and width at the bottom to permit easy cleaning. The gutter bottom shall be pitched one-quarter (1/4) inch per foot to drainage outlets located at intervals as approved by the Department. Outlet piping shall be sized to circulate at least 50 percent of the capacity of the circulating system and have a properly installed approved cover. The surge tank shall be equipped with float controls regulating the main drain, fill line and overflow. It shall have a capacity in gallons equal to the surface area of the pool measured in square feet. Stainless steel gutters and other specialty gutter systems may be used if they are hydraulically equivalent to overflow gutters.



- (4). Skimming devices, where used, shall be recessed into the pool wall and shall be installed to achieve effective skimming action throughout the pool. Skimmers shall be provided on a basis of at least one (1) skimmer for each 400 square feet of surface area. The overflow slot shall be set level and shall not be less than eight (8) inches in width at the narrowest section. The rate of flow through the skimmers shall be a minimum of 75 percent (75%) of the recirculation system capacity. Skimmers shall be designed to carry at least 30 GPM per linear foot of weir throat. A minimum of two (2) skimmers shall be installed in swimming pools. Where three (3) or more surface skimmers are used, they must be on a closed loop piping system. At least one (1) surface skimmer shall be located on the side or near the corner of the swimming pool that is downwind of the area's prevailing winds. Main drain piping shall be designed to carry at least 50 percent of the design flow.
- (5). Mixed inlet types, such as, skimmers and gutters are prohibited on the same body of water.

Section 233.560 Ladders, Steps, and Recessed Treads

- A. At least one (1) set of steps shall be provided in the shallow end of each swimming pool. Where the deep section is greater than 20 feet in width, two (2) ladders, located on opposite sides of the deep section are required. A minimum of two (2) means of egress will be required in all pools. There shall be at least one (1) ladder or stair for each 75 feet of perimeter. Preformed step holes and suitable handrails may be substituted for ladders. At least one (1) set of steps shall be provided in the shallow end of each swimming pool.
 - (1). Steps must be permanently marked so as to be clearly visible from above or below the pool surface and shall not project into the pool in a manner, which will create a hazard. Steps may be constructed only in the shallow area of a public or semipublic swimming pool. All tread surfaces on steps shall have slip-resistant surfaces. Step treads shall have a minimum unobstructed horizontal depth of ten (10) inches. Risers shall have a maximum uniform height of 12 inches, with the bottom riser height allowed to vary plus or minus two (± 2) inches from the uniform riser height. The location of stairs, ladders, and recessed treads shall not interfere with racing lanes. A set of steps shall be provided in a public or semipublic spa. Handrails shall be provided at one side or in the center of all stairways. Handrails shall be installed in such a way that they can be removed only with tools. A beach entry may be substituted for steps in the shallow end of the pool.



- (2). A swimming pool ladder shall be equipped with two (2) handrails. All treads on ladders shall have slip-resistant surfaces. Ladder treads shall have a minimum horizontal depth of one and one-half (1 1/2) inches. The distance between ladder treads shall range from a minimum of seven (7) inches to a maximum of 12 inches. Below the waterline, there shall be a clearance of not more than six (6) inches and not less than three (3) inches between any ladders tread edge and the wall as measured from the side of the tread closest to the wall.
- (3). Recessed treads with handrails may be substituted for ladders. Recessed treads shall be pre-formed, readily cleanable, and designed to drain into the swimming pool or spa to prevent the accumulation of dirt in the recessed treads. Each set of recessed treads shall be equipped with two (2) handrails. All recessed treads shall have slip-resistant surfaces. The vertical distance between the swimming pool or spa coping edge or deck and the uppermost recessed tread shall be a maximum of 12 inches. Recessed treads at the centerline shall have a uniform vertical spacing of 12 inches maximum and seven (7) inches minimum. Recessed treads shall be at least five (5) inches deep and 12 inches wide.

Section 233.570 Lighting

- A. It is the responsibility of the owner to insure that a public or semipublic aquatic center and adjacent deck areas shall be lighted by natural or artificial means when in use. A public or semipublic aquatic center that is intended to be used at night shall be equipped with artificial lighting that is designed and spaced so that all parts of the swimming pool or spa, including the bottom, may be seen without glare.

Section 233.580 Hose Bibbs

- A. Hose bibb(s) shall be provided along the perimeter of the deck so that all parts of the deck may be washed down. At a minimum, each hose bibb shall be protected against back siphonage with an atmospheric vacuum breaker. The Department may approve quick-disconnect-style hose bibb(s)

Section 233.590 Diving Facilities

- A. The dimensions of a diving area in a public or semipublic swimming pool shall comply with minimum requirements for length, width, depth, area and other dimensions specified in Appendix A or Appendix B. The diving well profile in Appendix A does not apply to a special use pool



that is intended for competitive diving and has been approved by the Department pursuant to Article X of this code.

- B. Diving equipment shall be permanently anchored to the swimming pool deck. Equipment shall be rigidly constructed with sufficient bracing to insure stability. Supports, platforms, steps, and ladders for diving equipment shall be designed to carry anticipated loads.
- C. All diving stands higher than 21 inches, measured from the deck to the top of the board, shall be provided with stairs or a ladder.
- D. Diving equipment shall have a durable finish. The surface finish shall be free of tears, splinters, or cracks that may be a hazard to users.
- E. Steps and ladders leading to diving boards and diving platforms shall be of corrosion-resisting materials and shall have slip-resistant tread surfaces. Step treads shall be self-draining.
- F. Diving boards, diving platforms, and starting blocks shall have slip-resistant tread surfaces.
- G. Handrails shall be provided at all steps and ladders leading to diving boards that are one (1) meter or more above the water.
- H. Diving boards and diving platforms that are one (1) meter or higher shall be protected with guard rails. Guardrails shall be at least 30 inches above the diving board or diving platform and shall extend to the edge of the swimming pool wall.
- I. A label shall be permanently affixed to a diving board and shall include the following:
 - (1). Manufacturer's name and address;
 - (2). Board length; and
 - (3). Fulcrum setting instructions.
- J. The maximum diving board height over the water is three (3) meters. The maximum height of a diving platform over the water is ten (10) meters.
- K. Starting blocks shall be located in the deep end of a public swimming pool or where the depth of the water is at least five (5) feet and should ideally be at eight (8) feet.
- L. There shall be a completely unobstructed clear vertical distance of 13 feet above any diving board measured from the center of the front end



of the board. This clear, unobstructed vertical space shall extend horizontally at least eight (8) feet behind, eight (8) feet to each side, and 16 feet ahead of the front end of the board.

Section 233.600 Lifeguards

- A. At all public pools at least one (1) lifeguard shall be on duty for each 2,000 square feet of pool surface area or 150 bathers or as approved by the Department.
- B. Lifeguards shall be in constant attendance during bathing hours and no bathers shall be permitted in a pool area unless lifeguards are present.

Section 233.610 Lifeguard Chairs

- A. Each public pool shall have at least one (1) elevated lifeguard chair for each 2,000 square feet of pool surface area or 150 bathers. The chairs must be located close to the deeper portion of the pool and provide a clear, unobstructed view of the pool bottom. If a public swimming pool is provided with more than one (1) lifeguard chair or the width of the public swimming pool is 45 feet or more, then lifeguard chairs shall be located on each side of the public swimming pool.

Section 233.620 Lifesaving and Safety Equipment

- A. When present, all lifeguards shall have the safety equipment required by the agency that issues their lifeguarding credentials. Public swimming pools shall have lifesaving and safety equipment that is conspicuously and conveniently located and maintained ready for immediate use at all times. An inventory of lifesaving and safety equipment used at a public aquatic center by lifeguards shall be filed with the department.

Section 233.630 Drinking Water Supply

- A. Drinking water from an approved source and dispensed through one (1) or more approved sanitary drinking fountains shall be located on the deck of each public pool or spa.

Section 233.640 Fencing

- A. All public pools, spas and walkways adjacent to such pools shall be enclosed by a durable fence or wall at least six (6) feet high to provide bather control while the pool is in operation, and to prohibit any



person from using the pool except when a lifeguard is on duty. The height of the fence, wall, or barrier shall be measured on the side of the barrier, which faces away from the swimming pool or spa. Fences, walls or artificial barriers shall:

- (1). Be constructed so as to afford no external handholds or footholds;
- (2). Be of materials, which are impenetrable by small children, dogs, livestock, etc.;
- (3). Be a minimum of six (6) foot high above the highest practical foothold, curb, or (in the case of a combination fence) the base wall;
- (4). Have openings or spacings of such size that a spherical object four (4) inches in diameter cannot pass through; and
- (5). Be equipped with a gate that opens outward from the swimming pool or spa, with a self-closing and positive self-latching closure mechanism or a locking closure located at or near the top of the gate and at least 54 inches above the floor.
- (6). The distance between the horizontal components of a fence shall not be less than 45 inches apart. The horizontal members shall be located on the interior side of the fence. Spacing or openings between vertical members shall be of a size that a spherical object four (4) inches in diameter cannot pass through.
- (7). The maximum mesh size for a wire mesh or chain link fence shall be 1.25" X 1.25" (maximum opening area size = 1.56 square inches). The maximum opening formed by the composed diagonal members shall be no more than 1.75 inches.
- (8). Masonry or stone walls shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.
- (9). If a wall of a building serves as part of the barrier around a public or semipublic swimming pool or spa, there shall be no direct access to the swimming pool or spa through the wall except as follows:
 - (a) Windows leading to the swimming pool or spa area shall be equipped with a screwed-in place wire mesh screen or a keyed lock that prevents opening the window more than four (4) inches.
 - (b) A hinged door leading to the swimming pool or spa area shall be self-closing and shall have a positive self-latching device. The release mechanism of the positive self-latching device shall be located at least 54 inches above the floor.
 - (c) If an additional set of doors is required by the fire code allowing access to the swimming pool or spa, they shall be self-closing and self-latching, equipped with panic bars no



less than 54 inches from the floor to the bottom of the bar and designated "for emergency use only."

- (d) Sliding doors leading to the swimming pool or spa area are prohibited except for sliding doors that are self-closing and self-latching.
- (10). If a barrier is composed of a combination concrete masonry unit and wrought iron, the wrought iron portion shall be installed flush with the outside vertical surface of the concrete masonry unit. The space between the wrought iron and the concrete masonry unit shall be one-half (1/2) inch or less. The vertical members of the wrought iron shall be spaced four (4) inches on center.
- (11). An area clear of any type of footholds which could be used to assist in scaling the barrier must be maintained for a minimum of three (3) feet outside the barrier and so that the effective height of the barrier is maintained.
- (12). In addition, the mechanical filtering, disinfection and recirculating equipment must be protected from tampering by a suitable enclosure or fence.

Section 233.650 Lifeline

- A. A lifeline shall be installed across each public swimming pool at the point where the floor slope begins to exceed one (1) foot in ten (10) feet whenever the pool is open for use by the general public. The lifeline shall be three-fourths (3/4) inch minimum diameter and supported by floats spaced at intervals not greater than seven (7) feet. The rope and float line shall be securely fastened to wall anchors that are made of corrosion-resistant materials. The wall anchors shall be recessed or have no projection that constitutes a hazard when the float line is removed.

Section 233.655 Wastewater Disposal

- D. Pool waste water shall be discharged through an air gap; disposal shall be to sanitary sewers, storm sewers, drainfields, or by other means, in accordance with local municipal and building official requirements including obtaining all necessary permits. Each waste line shall have a unique air gap. Waste lines from different sources (e.g. pool, spa, overflow, sump pump) shall not be tied together, but may discharge into a common sump or receptacle after the air gap. There shall be no direct physical connection between the sewer system and any drain from the pool or recirculation system.



Section 233.658 Miscellaneous

- A. Walkways shall be provided adjacent to the pool and shall:
- (1). Be at least ten (10) feet wide, continuous and unobstructed except that where diving boards and platforms are installed the walkway shall extend at least five (5) feet to each side and behind the board or platform but not less than 15 feet from the pool wall;
 - (2). Slope away from the pool with a pitch of at least one-fourth (1/4) inch per one (1) foot to properly located deck drains or other approved points of disposal;
 - (3). Be constructed of concrete or other inorganic material, with a slip-resistant, easily cleanable finish, free of sharp or jagged edges or surfaces;
 - (4). Be designed to conform to the dimensions shown in Appendix A, as applicable;
 - (5). Have valves that are installed, in or under any deck, to provide a minimum ten (10) inch diameter access cover and a valve pit to facilitate the repair and maintenance of the valve;
 - (6). Have joints in decks that are provided to minimize the potential for cracks due to changes in elevations or movement of the slab. The maximum voids between adjoining concrete slabs or between concrete slabs and expansion joint material shall be three-sixteenths (3/16) inch of horizontal clearance with a maximum difference in vertical elevation of one-fourth (1/4) inch. Areas where the deck joins concrete shall be protected by expansion joints to protect the swimming pool or spa from the pressures of relative movements. Construction joints where pool or spa coping meets the deck shall be watertight and shall not allow water to pass through to the underlying ground;
 - (7). Have decks that are sloped to effectively drain either to perimeter areas or to deck drains. Drainage shall remove splash water, deck cleaning water, and rainwater without leaving standing water. The minimum slope of the deck shall be one-fourth (1/4) inch per one (1) foot. The maximum slope of the deck shall be one (1) inch per one (1) foot, except for ramps;
 - (8). Provide site drainage to direct all perimeter deck drainage and general site and roof drainage away from a public or semipublic swimming pool or spa. Yard drains may be required to prevent the accumulation or puddling of water in the general area of the deck and related improvements; and
 - (9). Have a coping or cantilevered deck that may project from a swimming pool or spa wall to provide a handhold for users. The coping or deck shall be rounded, have a slip-resistant surface finish, and shall not exceed three and one-half (3 1/2) inches in



thickness. The overhang of the coping or deck shall not exceed two (2) inches or be less than one (1) inch.

B. Freeboard shall not exceed eight (8) inches.



ARTICLE VII. SEMIPUBLIC SWIMMING POOLS

In addition to complying with all the Regulations in Articles 1,2,3,4, 5 and 6 of this Chapter, Semipublic Swimming Pools shall comply with the following Sections:

Section 233.660 Lifesaving and Safety Equipment - Semipublic

- A. Lifesaving and safety equipment consisting of at least one (1) Coast Guard approved ring buoy with 50 feet of one-fourth (1/4) inch rope attached, and one (1) shepherd's crook mounted on a rigid 16-foot pole shall be provided at each semi-public pool. Semi-public swimming pools shall have lifesaving and safety equipment that is conspicuously and conveniently located and maintained ready for immediate use at each pool at all times.

Section 233.670 Fencing - Semipublic

- A. Semipublic aquatic centers shall be protected by a fence, wall or other approved barrier at least six (6) feet high from all parts of the premises not directly related to the swimming pool, spa or aquatic unit. The height of the fence, wall, or barrier shall be measured on the side of the barrier that faces away from the swimming pool or spa. An area clear of any type of footholds, which could be used to assist in scaling the barrier, must be maintained for a minimum of three (3) feet outside the barrier so that the effective height of the barrier is maintained. Fences, walls or artificial barriers shall:
 - (1). Be constructed so as to afford no external handholds or footholds;
 - (2). Be of materials, which are impenetrable by small children, dogs, livestock, etc.;
 - (3). Have openings or spacing of such size that a spherical object four (4) inches in diameter cannot pass through;
 - (4). Be equipped with a gate that opens outward from the swimming pool or spa, with a self-closing and positive self-latching closure mechanism at least 54 inches above the floor;
 - (5). The distance between the horizontal components of a fence shall not be less than 45 inches apart. The horizontal members shall be located on the interior side of the fence;
 - (6). The maximum mesh size for a wire mesh or chain link fence shall be 1.25" X 1.25" (maximum opening area size = 1.56 square inches). The maximum opening formed by the composed diagonal members shall be no more than 1.75 inches



- (7). Masonry or stone walls shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints;
- (8). If a wall of a building serves as part of the barrier around a semipublic swimming pool or spa, there shall be no direct access to the swimming pool or spa through the wall except as follows:
 - (a) Windows leading to the swimming pool or spa area shall be locked, preventing opening the window more than four (4) inches;
 - (b) A hinged door leading to the swimming pool or spa area shall open outward from the swimming pool or spa, be self-closing and shall have a positive self-latching mechanism device. The release mechanism of the self-latching device shall be located at least 54 inches above the floor;
 - (c) If an additional set of doors is required by the fire code allowing access to the swimming pool or spa area, they shall be self-closing and positive self-latching, equipped with panic bars no less than 54 inches from the floor to the bottom of the bar, or equipped with non-disarmable alarms if fire codes require panic bar heights lower than 54 inches, and designated "for emergency use only";
 - (d) Sliding doors leading to the swimming pool or spa area are prohibited except for sliding doors that are self-closing and self-latching with the release mechanism of the self-latching device located at least 54 inches above the floor.
- (9). If a barrier is composed of a combination concrete masonry unit and wrought iron, the wrought iron portion shall be installed flush with the outside vertical surface of the concrete masonry unit. The space between the wrought iron and the concrete masonry unit shall be one-half (1/2) inch or less. The vertical members of the wrought iron shall be spaced four (4) inches on center.

- B. The pool enclosure shall not serve as or function as all or part of a residential fence.
- C. In addition, the mechanical filtering, disinfection and recirculation equipment must be protected from tampering by an enclosure or fence as described in §233.670(A). A locked closure can be provided in lieu of a self-closing and positive self-latching closure.

Section 233.680 Walkways

- A. Walkways shall be provided immediately adjacent to semipublic pools. Walkways shall be continuous, unobstructed and at least four (4) feet wide. Where diving boards and platforms are installed, the walkway



shall extend at least four (4) feet to each side and behind the board or platform.

- B. Walkways shall slope away from the pool with a pitch of at least one-fourth (1/4) inch per foot to properly located deck drains or other approved points of disposal.
- C. Walkways shall be constructed of concrete or other inorganic material, with a slip-resistant, easily cleanable finish, free of sharp or jagged edges or surfaces.
- D. Design of walkways shall conform to the dimensions shown in Appendix A, as applicable.
- E. Any valve that is installed in or under any deck shall provide a minimum ten (10) inch diameter access cover and a valve pit to facilitate the repair and maintenance of the valve.
- F. Joints in decks shall be provided to minimize the potential for cracks due to changes in elevations or movement of the slab. The maximum voids between adjoining concrete slabs or between concrete slabs and expansion joint material shall be three-sixteenths (3/16) inch of horizontal clearance with a maximum difference in vertical elevation of one-fourth (1/4) inch. Areas where the deck joins concrete shall be protected by expansion joints to protect the swimming pool or spa from the pressures of relative movements. Construction joints where pool or spa coping meets the deck shall be watertight and shall not allow water to pass through to the underlying ground.
- G. Decks shall be sloped to effectively drain either to perimeter areas or to deck drains. Drainage shall remove splash water, deck cleaning water, and rainwater without leaving standing water. The minimum slope of the deck shall be (1/4) inch per one (1) foot. The maximum slope of the deck shall be one (1) inch per one (1) foot, except for ramps.
- H. Site drainage shall be provided to direct all perimeter deck drainage and general site and roof drainage away from a public or semipublic swimming pool or spa. Yard drains may be required to prevent the accumulation or puddling of water in the general area of the deck and related improvements.



Section 233.690 Floor Slope

- A. In water less than five (5) feet in depth, the slope shall not exceed one (1) foot in ten (10) feet.

Section 233.700 Bathhouses and Dressing Room Facilities

- A. A bathroom with a minimum of one (1) toilet shall be provided for each sex. Each bathroom shall have at least one (1) lavatory. Soap dispensers for providing either liquid or powdered soap shall be provided at each lavatory. Soap dispensers shall be made of metal or plastic with no glass permitted. Establishments operating semi-public pools, that provide clean and sanitary private rooms, including toilet, body washing and drinking water for all bathers shall be deemed to have complied with §233.530

Section 233.710 Depth

- A. The depth in the shallow portion of a semipublic pool shall not be greater than three (3' 0") feet. For a semipublic swimming pool with a minimum depth less than twenty-four (24) inches:
 - (c) Additional circulation requirements shall be required to ensure proper water quality standards.
 - (d) Additional sign requirements shall be required to alert aquatic center users of the shallow depth.

Section 233.720 Freeboard

- A. Freeboard shall not exceed eight (8) inches, except, freeboard may be increased in those cases where it is desired to provide walls, terraces, etc., provided that the following are complied with:
 - (1). Guard rails or other similar devices must be provided to prevent the raised areas use as a diving platform;
 - (2). The vertical surface of these sections must be constructed of sound durable inorganic material, rigid, smooth, and easily cleanable;
 - (3). The horizontal surfaces must comply with the provisions for walkways;
 - (4). The vertical surface area of these sections will be included as surface area of the pool for determining the type, size, location and numbers of equipment and piping; and
 - (5). The length and height of the section where freeboard is increased shall be limited. The Department will review each case as unique, and consideration will be given to factors of safety, exit distance, alternative exits, location, and water depth.



ARTICLE VIII. WADING POOLS

In addition to complying with all the Sections in Articles 1, 2, 3, 4, 5, 6 and 7 of this Chapter, Wading Pools shall comply with the following Sections:

Section 233.730 Public and Semipublic

- A. In public and semipublic aquatic centers, wading pools shall be separated from swimming pools by a minimum three (3) foot high fence or partition with self-closing, self-latching gate to prevent the direct entrance of waders into the swimming pool area.
- B. Public wading pools shall be equipped with chemical controllers capable of maintaining pH and chlorine levels within the regulated limits.

Section 233.740 Semipublic

- A. Wading pools shall be separated from semipublic swimming pools by a minimum of four (4) feet of walkway. A wading pool shall not be located adjacent to the deep area of a semipublic swimming pool.

Section 233.750 Depth – Wading

- A. Wading pools shall have a maximum depth of 24 inches, the slope of the bottom shall not exceed one (1) foot in 12 feet, and a non-slip surface shall be provided.

Section 233.760 Circulation - Wading

- A. Wading pools shall have a maximum turnover cycle of one (1) hour;
- B. All wading pools must have separate equipment from any other pool for water recirculation and disinfection and there shall be no cross-connection between a wading pool and any other pool;
- C. Wading pools shall be equipped with at least two main drains located in the deepest portion that are separated by a minimum of three (3) feet. Suction outlets in a wading pool shall be plumbed so as to eliminate any possibility of entrapping suction. Each drain shall be covered by an anti-vortex cover, which is not readily removable by bathers and has safe openings of at least four (4) times the area of the drainpipe.



- D. Skimmers shall be provided on the basis of at least one (1) skimmer for each 200 square feet of wading pool surface area. Skimmer flow rates shall be the same as required for swimming pools. Where only one (1) skimmer is provided, the main drain may be connected through the skimmer;
- E. Inlets shall be provided on a basis of at least one (1) for each 15 feet of periphery. Where three (3) or more inlets are required, they shall be on a closed loop piping system.

Section 233.770 Drinking Fountains

- A. A sanitary drinking fountain at a height convenient to small children shall be provided at one (1) side or end of the area. Alternately, a fountain with a raised step, to enable small children to drink without assistance, may be provided.

Section 233.780 Depth Markers

- A. A wading pool shall be equipped with depth markers complying with §233.540, of this code.

Section 233.790 Disinfection

- A. Gaseous chlorine shall not be used for disinfection of water in wading pool.



ARTICLE IX. SPAS

In addition to complying with all the Sections in Articles 1, 2, 3,4, 5, 6, 7 and 8 of this Chapter, Spas shall comply with the following Sections:

Section 233.800 Depth - Spas

- A. Spas shall have a maximum depth of 42 inches. The bottom shall have a maximum slope of one (1) foot in ten (10) feet and be finished with a non-slip surface. A set of entrance steps and handrails shall be installed. All steps, benches or other projections from the walls shall be outlined on the top surface edges by a continuous line of sharply contrasting colored tile or other suitable material that is clearly visible from the edge of the pool.

Section 233.810 Circulation – Spas

- A. Spas shall have a maximum turnover cycle of 30 minutes. A separate water recirculation and disinfection system from any other pool or spa shall be installed for spas. Therapy heads or other devices, which create roiling water or other similar effects, may not be connected to the recirculation system, but must be operated through a separate system. Dual main drains shall be provided. Skimmers shall be provided at the rate of one (1) skimmer for each 200 square feet of pool surface. Skimmer flow rates shall be the same as required for swimming pools. Where only one skimmer is provided, the main drains may be connected through the skimmer. Inlets shall be provided on a basis of at least one (1) for each 15 feet of pool periphery. Where three (3) or more inlets are required they shall be on a closed loop piping system.
- B. Public and semipublic spas shall be equipped with chemical controllers capable of maintaining pH and chlorine levels within the regulated limits.

Section 233.820 Walkways - Spas

- A. A minimum of four (4) feet of deck shall be provided on at least two (2) continuous sides of the pool and 50 percent of the periphery. When applicable, the remaining deck shall not be more than eight (8) inches in width and shall be designed to preclude its use as a walkway.



Section 233.830 Drains

- A. A minimum of two (2) suction outlets shall be provided for each pump in a suction outlet system for a public or semipublic or spa. The suction outlets shall be separated by a minimum of three (3) feet or located on two (2) different planes such as one (1) suction outlet on the bottom and one (1) on a vertical wall or one (1) suction outlet each on two (2) separate vertical walls provided the three (3)- foot separation is always maintained. The suction outlets shall be plumbed to draw water through them simultaneously through a common line to the pump. Suction outlets shall be plumbed to eliminate the possibility of entrapping suction. All drains and outlets of spas must have plumbing provisions to eliminate any possibility of entrapping suction. The total velocity through grate openings shall not exceed one and one-half (1 1/2) feet per one (1) second.

Section 233.835 Disinfection

- A. Gaseous chlorine shall not be used for the disinfection of spas.

Section 233.840 Separation Walls

- A. Where a spa is located contiguous with a swimming pool, the separating wall shall be designed to preclude its use as a walkway unless the minimum required walkway widths can be maintained.

Section 233.845 Temperature

- A. The temperature of heated water coming into a public or semipublic spa shall not exceed 104°F (40°C).

Section 233.846 Timer

- A. The timer for a public or semipublic spa which controls the hydrotherapy jets shall be located at least five (5) feet from the spa and shall have a maximum time limit of 15 minutes.

Section 233.848 Air Blower and Air Induction Systems

- A. An air blower system or air induction system for a public or semipublic spa shall comply with the following requirements:
 - (1). The system shall prevent water backflow, which could cause an electric shock hazard;
 - (2). Air intake sources shall not introduce water, dirt, or contaminants into the spa;



- (3). The system shall be properly sized for a commercial spa application;
- (4). If the air blower is installed within an enclosure or indoors, then adequate ventilation shall be provided; and
- (5). Integral air passages shall be pressure tested and shall provided structural integrity to a value of one and one-half (1 ½) times the intended working pressure.

Section 233.849 Depth Markers

- A. Depth markers for a public or semipublic spa shall comply with all of the following:
 - (1). A public or semipublic spa shall have permanent depth markers with numbers that are a minimum of four (4) inches high. Depth markers shall be plainly and conspicuously visible from all points of entry.
 - (2). The maximum depth of a public or semipublic spa shall be clearly indicated by depth markers.
 - (3). There shall be a minimum of two (2) depth markers at each public or semipublic spa.
 - (4). Depth markers shall be spaced at no more than 25 foot intervals and shall be uniformly located around the perimeter of the spa.
 - (5). Depth markers shall be positioned on the deck within 18 inches of the spa. A depth marker shall be positioned so that a person standing on the deck facing the water can read it.
 - (6). Depth markers that are on the deck surfaces shall be made of slip-resistant material.
 - (7). Depth markers shall be in Arabic numerals of contrasting color to the background.



ARTICLE X. SPECIAL USE POOLS

In addition to complying with all the Sections in Articles 1, 2, 3,4, 5, of this Chapter, Special Use Pools shall comply with the following Sections:

Section 233.850 Supplemental Standards and Requirements

- A. Persons intending to construct a special use pool shall notify the Department and provide plans, specifications and a description of the intended use. The Department will determine which of the Regulations in this Chapter apply to the proposed special use pool. The Department may, at its discretion, establish additional standards or requirements for special use pools, taking into consideration the intended use of the pool, the conditions under which it will be operated and any special circumstances. Where applicable, the Department may consider the design requirements prescribed by an official sanctioning athletic body such as the National Collegiate Athletic Association (NCAA), National Federation of State High School Associations (NFSHSA), U.S. Swimming, U.S. Diving, or the Federation Internationale de Natation Amateur (FINA) in using best professional judgment to approve a special use pool that is intended for competitive swimming and diving.
- B. Special use public and semipublic aquatic units shall be equipped with chemical controllers capable of maintaining pH and chlorine levels within the regulated limits.

Section 233.852 Alternate Design

- A. Where an alternate design for an aquatic center or any part thereof is proposed, which complies in principle with the provisions of this code, such design may be approved by the Department.

Section 233.854 Exercise or Training Bars

- A. A swimming pool designed with exercise or training bars in the pool shall be restricted to special use when the bars are located in the pool.
- B. Bars shall be constructed of durable material and be reasonably resistant to corrosion under conditions of operations.
- C. Bars shall be sealed, welded shut or capped at both ends to prevent retention of water within the bars.



- D. Bars may be removable. The bars then shall be wedges anchored in place with a cover plate provided. Watertight anchor plugs (95 percent efficiency) shall be provided when the bars have been removed.
- E. Bars shall extend not more than four (4) inches from the side of the pool into the water.
- F. The clear opening from the inside of the bar to the side of the pool shall not be less than two (2) inches or more than two and one-fourth (2 1/4) inches.

Section 233.856 Ramps

- A. Where a ramp is to be installed in a swimming pool, the ramp shall be constructed:
 - (1). Of non-slip material;
 - (2). With a slope not to exceed one (1) foot in 12 feet;
 - (3). With a width of at least three (3) feet;
 - (4). With a level platform at the top and bottom of the ramp;
 - (5). With at least a three and one-half (3 1/2) feet high guardrail installed on the deck from eight (8) inches beyond where the slope for the ramp terminates and extending the length of the ramp; and
 - (6). With return(s) to be located on the pool and ramp walls along the length of the ramp.

Section 233.858 Spray Ponds

- A. All spray ponds shall use potable water.
- B. Spray ponds (semipublic and public) shall comply with code references specified in §233.858 (A) – (D):
 - (1). Semipublic spray pond regulation stipulated specified in Articles I. – V. and VII., of this Chapter ;
 - (2). Public spray pond regulation stipulated under Articles I. – V. and VII., of this Chapter.
- C. Spray ponds in which water is recycled shall be regulated as a special use pool (Chapter 233, Article X).
- D. Spray ponds shall:
 - (1). Be made of durable material that is impervious to moisture and retains a non-slip texture that causes no discomfort to bare feet;
 - (2). Be completely free of obstructions that may be hazardous to children;



- (3). Have a floor with a maximum slope of one (1) in ten (10);
- (4). Be entirely surrounded by a walkway at least four (4) feet wide, which falls away from the pool or basin edge at a uniform slope of not less than one-fourth (1/4) inch per one (1) foot;
- (5). Have a fence or other barrier with controlled access surrounding the spray pond and walkways to prevent the easy access of non-users and pets; and
- (6). Have a turnover time of no more than one (1) hour.

Section 233.859 Reserved.



ARTICLE XI. WATER SLIDES

Section 233.860 Additional Standards and Requirements

- A. The Department may, at its discretion, establish additional standards or requirements for water slides and recovery pools, taking into consideration any unique features of the water slide and recovery pool and the conditions under which it will be operated. This section does not cover drop slides, slides with a slope greater than ten (10) percent or any slide in which the rider uses any kind of equipment during use of the slide.
- B. Public and semipublic waterslides shall be equipped with chemical controllers capable of maintaining pH and chlorine levels within the regulated limits.

Section 233.862 Construction, Design, and Specifications

- A. The slide plans and specifications shall be incorporated into swimming pool application forms, plans and specifications prepared and submitted pursuant to Article VI of this Chapter.
- B. Plan sheets and specifications addressing the structural aspects of the slide tower and the slide support structure shall carry the seal and signature of a registered civil or structural engineer licensed to practice in the state of Missouri.
- C. Structural design calculations for the slide tower and the slide support structure shall be submitted and shall carry the seal and signature of a registered civil or structural engineer licensed to practice in the state of Missouri.
- D. Soil studies and calculations performed in conjunction with the slide tower and support structure design shall carry the seal and signature of a registered professional engineer licensed to practice in the state of Missouri.
- E. Construction of the slide and its appurtenances shall be monitored by the civil or structural engineer of record. This engineer shall certify that the slide was constructed in conformance with the approved plans or as reflected on the sealed as-built plans.
- F. Splashdown area must be cordoned off with buoy lines if not a dedicated slide pool only.



- G. The Department may consider sufficient, sealed design documentation from credentialed waterslide design authorities and/or require a slide splashdown pool to conform to the following dimensions:
- (1). There shall be at least six (6) feet clearance from the side of the flume to the recovery poolside wall.
 - (2). There shall be at least six (6) feet clearance between the sides of two (2) adjacent slides.
 - (3). The slide shall terminate at or below the water line and the slide terminus shall be in at least three and one-half (3 1/2) feet of water.
 - (4). The engineer or the slide manufacturer must provide calculations to justify the length of runout. In no case shall the runout be less than 25 feet.
 - (5). The exit from the recovery pool area must consist of a set of stairs located at the opposite end of the recovery pool from the slide entrance.
 - (6). Four (4) feet of walkway shall be provided around at least three (3) sides of the recovery pool and behind the slide in semipublic pools, and ten (10) feet of walkway shall be provided around at least three (3) sides of the recovery pool and behind the slide in public pools.
 - (7). There must be at least four and one-half (4 1/2) feet (54 inches) clearance between the invert of the open flume and any object above the flume.
 - (8). When the slide is not in use, a suitable barrier shall be placed at the bottom of the stairs of the slide to prevent bathers from entering the slide.
 - (9). The area on the deck below the water slide and the stair tower must be fenced and made unavailable to pedestrian traffic.
 - (10). Two (2) emergency shut off switches shall be provided for each slide circulation pump, one easily accessible by the lifeguard at the top of the flume and one (1) easily accessible by the lifeguard in the pool area.
 - (11). A training program for the lifeguards shall also be submitted with slide pool plans for approval.

Section 233.864 Lifeguards

- A. A minimum of two (2) lifeguards shall be on duty at the slide whenever it is in use. One (1) lifeguard at the top of the tower, and one (1) lifeguard at in the splashdown area. The lifeguards shall be in visual or voice contact at all times.



Section 233.866 Operation, Maintenance and Management

- A. An operation and maintenance manual for the slide shall be prepared and submitted for review and approval. The manual shall contain, but not necessarily be limited to all of the following:
- (1). A list of all mechanical equipment and equipment maintenance schedules,
 - (2). Slide tower and support structure inspection and maintenance schedule,
 - (3). Slide flume inspection and maintenance schedule,
 - (4). Slide safety and supervision provisions, and
 - (5). A lifeguard deployment plan.

Section 233.868 Instruction Signage

- A. A sign shall be posted at the entrance of the slide tower informing bathers of the necessary safety procedures and informing bathers to follow the instructions of the lifeguard. The sign shall contain the following as a minimum:
- (1). Follow the instructions of the lifeguard,
 - (2). One rider at a time,
 - (3). Feet first sliding only,
 - (4). No horseplay,
 - (5). Exit slide recovery area immediately,
 - (6). No kneeling or standing on the slide,
 - (7). Keep hands and feet inside slide,
 - (8). Height minimum and maximum requirements determined by slide manufacturer recommendations,
 - (9). The manufacturers other suggested rules shall be incorporated in the sign, and
 - (10). Persons not following the safety procedures or the instructions of the lifeguard shall be excluded from the slide.

Section 233.869 Reserved.



ARTICLE XII. ZERO DEPTH ENTRY POOLS

In addition to complying with Articles 1 -5 of this Code, Zero Depth Entry Pools shall comply with the following Sections:

Section 233.870 Circulation system

- A. A zero depth entry pool shall have a turnover rate for the area of the pool up to a depth of two (2) feet of at least once every hour.
- B. A zero depth entry pool shall be equipped with a trench drain running the entire length of the entry. It shall be covered with a removable grate to facilitate cleaning. The trench drain shall be located so that the water surface of the pool falls no higher than the middle of the grate. The grate shall be designed to eliminate the possibility of injury to bathers.
- C. There shall be a minimum of four (4) floor inlets, plumbed not more than 6 feet apart and no further than five (5) feet from the zero depth entry.

Section 233.872 Floor

- A. At the entry, the deck/floor must slope toward the pool. The slope of the deck may not exceed one (1) foot in 12 feet.
- B. All floor materials must be non-slip to a minimum depth of two (2) feet.

Section 233.874 Reserved.



ARTICLE XIII. FITNESS CENTERS

Section 233.875 Definitions

- A. For the purposes of this Article, the following terms, phrases, and words shall have the meanings herein expressed:
- (1). "Clean" shall mean the condition of being free from readily noticeable dirt, soil, stain, left over food particles, or other materials not intended to be a part of the object in question.
 - (2). "Department" shall mean the St. Charles County Department of Community Health and the Environment.
 - (3). "Director" shall mean the Director the St. Charles County Department of Community Health and the Environment or his or her designated representative.
 - (4). "Operator" shall mean any person who leases or manages a fitness center; or any employee of a fitness center assigned as the person in charge.
 - (5). "Sanitary" shall mean the condition of being free from infective, physically hurtful diseased, poisonous, unwholesome, or otherwise unhealthful substances and being completely free from vermin, from the traces of either, and from an environment conducive to the growth of either.

Section 233.876 Housekeeping

- A. Fitness Center facilities shall meet the following criteria:
- (1). All areas shall be kept neat, clean and in good repair.
 - (a). All bathrooms and shower facilities shall be cleaned daily and a written log shall be kept on the premises and made available to the Department, any other regulatory authorities, or a member of the public upon request. This log shall include:
 - (i). Time and Date of cleaning
 - (ii). Name of individual who completed cleaning.
 - (2). An Environmental Protection Agency (EPA) registered disinfectant or germicide (iodophor, phenolic, or alcohol containing germicide, or a 1:100 dilution of household bleach and water (two (2) tablespoons of bleach in one (1) quart of water)) shall be used after cleaning to disinfect any surface to ensure spread of disease.
 - (3). All surfaces and equipment shall be made of smooth, nonabsorbent, non-porous material that can withstand repeated use of EPA registered disinfectants.
 - (4). The cleaning room or area shall be set up in a manner to provide distinct, separate areas for cleaning equipment, and for the handling and storage of sterilized equipment. The cleaning area sink shall be reserved for cleaning only.



- (5). Adequate waste receptacles shall consist of a lid and be available in each workstation for the disposal of trash and debris.
- (6). All germicides and disinfectants must be used according to manufacturer's recommendations.
- (7). All chemicals shall be properly labeled and stored.
- (8). Pets or other animals shall not be permitted in the Facility. Trained guide or assistance animals for the disabled and fish in aquariums in the waiting area are exempted.

Section 233.877 Permits and Sign Requirements

A. Facility Permits.

- (1). No person shall operate a fitness center without written approval and a corresponding valid Recreational Facilities permit from the Department.

B. Every fitness center shall display, without obstruction in a conspicuous place designated, designed and supplied by the Department:

- (1). Notice stickers/placards that inform the public that the establishment is subject to inspection by the Department.
- (2). Sign giving information on filing a complaint about the sanitation of the center with the Department.
- (3). Notification to the public that the most recent inspection report and current cleaning schedule records are available for public viewing.

Section 233.878 Exposure Control Plan and Inspections

- A. The Facility Owner of every Fitness Center shall establish a written Exposure Control Plan applying to all employees and customers of the Facility and shall be kept on the premises and made available to the Department, any other regulatory authorities, or a member of the public upon request.
- B. The Exposure Control Plan shall include procedures within a Facility, describing how the cleaning and sanitizing of fitness equipment, fitness workout rooms and bathrooms will be implemented. The Exposure Control Plan shall contain procedures on disease outbreak reporting.
- C. The Department will conduct at least one yearly inspection of Fitness Centers to ensure compliance to Article XIII of this Code.
- D. Any inspection requiring a follow-up inspection may be subject to a fee as described in Article XV, of this Code.



ARTICLE XIV. TANNING CENTERS

Section 233.880 Purpose and Applicability of Article XIV.

- A. The purpose of this Article is to set forth permitting procedures and the requirements for maintenance and operation of tanning facilities in a way that will protect and promote the public health, safety, and welfare; and prevent the spread of disease.
- B. This Article applies to individuals operating or using tanning equipment in a tanning facility. This regulation shall not apply to a physician or chiropractor licensed by the State of Missouri who uses tanning equipment in the practice of medicine or chiropractic. This regulation shall not apply to an individual who owns tanning equipment exclusively for personal non-commercial use.

Section 233.890 Definitions

- A. For the purposes of this Article, the following terms, phrases, and words shall have the meanings herein expressed:
 - (1). "Clean" shall mean the condition of being free from readily noticeable dirt, soil, stain, left over food particles, or other materials not intended to be a part of the object in question.
 - (2). "Department" shall mean the St. Charles County Department of Community Health and the Environment.
 - (3). "Director" shall mean the Director the St. Charles County Department of Community Health and the Environment or his or her designated representative.
 - (4). "Operator" shall mean any person who leases or manages a tanning facility or temporary tanning facility; or any employee of a tanning facility certified to operate tanning equipment.
 - (5). "Owner" shall mean any person who alone, jointly, or severally with others:
 - (a). has legal title to any tanning facility or temporary tanning facility, with or without accompanying actual possession thereof; or
 - (b). has charge, care, or control of any tanning facility or temporary tanning facility, as legal or equitable owner, agent of the owner, lessee, or is an executor, executrix administrator, administratrix, trustee, or guardian of the estate of the owner.
 - (6). "Patron" shall mean any person who uses tanning equipment in a tanning facility.
 - (7). "Person" shall mean any individual; public or private corporation and its officers; partnership; association; firm; trustee; executor



of an estate; the State or its departments, institutions, bureaus, or agencies; any municipal corporation, county, city, political subdivision, or any other legal entity recognized by law.

- (8). "Permit" shall mean a written form of authorization in accordance with this regulation.
- (9). "Personal service station" shall mean a booth, table, or chair in which a personal service is provided. Examples include but are not limited to tanning booths or beds, massage tables, and hair stylist chairs.
- (10). "Sanitary" shall mean the condition of being free from infective, physically hurtful diseased, poisonous, unwholesome, or otherwise unhealthful substances and being completely free from vermin, from the traces of either, and from an environment conducive to the growth of either.
- (11). "Tanning Equipment" shall mean any device intended to induce skin tanning of any part of the body through ultraviolet radiation, including but not limited to, a tanning booth, tanning bed, or sun lamps.
- (12). "Tanning Facility" shall mean any location place, area, structure, or business that, either as a sole service or in conjunction with other services, provides patrons access to tanning equipment.
- (13). "Tanning injury" shall mean an injury or suspected injury which is reported to the tanning facility operator by the patron.
- (14). "Ultraviolet Radiation" shall mean electromagnetic radiation that has a wave length between two hundred nanometers and four hundred nanometers in air.

Section 233.900 Permits and Plan Review.

A. Facility Permits.

- (1). No person shall operate a tanning facility without written approval and a corresponding valid Recreational Facility permit from the Department.
- (2). No person shall operate a Temporary Tanning Facility without written approval and a corresponding valid Temporary Recreational Facilities Permit from the Department.

Section 233.910 Permit Application, Duration, and Renewal.

- A. Application for a Permit required in §233.900 of this Chapter shall be made upon a form provided by the Director.
- B. Permit application shall be made prior to commencement of operation of the tanning facility and a temporary tanning facility. Certificate application shall be made prior to operating tanning equipment.



Section 233.920 Permit Duration and Renewal.

- A. The Tanning Facility Permit shall be issued annually and shall expire one year from date of issuance. It is the responsibility of the owner or operator of the tanning facility and the individual tanning certificate holder to pursue their respective permit renewal through appropriate channels. The permit shall be renewable within 60 calendar days prior to the expiration date. The Temporary Tanning Facility Permit shall be valid for seven consecutive days beginning with the date written on the permit.

Section 233.930 Construction and Operation of Facilities.

- A. Unless otherwise ordered or approved by the Director, each facility shall be constructed, operated, and maintained to meet the following minimum requirements:
 - (1). Physical Facilities.
 - (a). Each tanning facility and temporary tanning facility shall have a toilet and a hand-washing sink with hot and cold water accessible to patrons provided with soap and single-use towels. All bathrooms shall be cleaned daily and a written log shall be kept on the premises and made available to the Department, any other regulatory authorities, or a member of the public upon request. This log shall include:
 - (i). Time and Date of cleaning
 - (ii). Name of individual who completed cleaning.
 - (b). The floors and walls in the toilet and hand-washing areas shall be constructed of smooth, non-absorbent material.
 - (c). All areas of the tanning facility and temporary tanning facility shall be ventilated with at least six air changes per hour.
 - (d). All rooms of a tanning facility shall be capable of being illuminated to allow for proper cleaning and sanitizing.
 - (e). Only tanning equipment manufactured in accordance with the specifications set forth in 21 C.F.R. 1040.20 "SUNLAMP PRODUCTS AND ULTRAVIOLET LAMPS INTENDED FOR USE IN SUNLAMP PRODUCTS" shall be used for tanning. The exact nature of compliance shall be based upon the standard in effect at the time of manufacture shown on the tanning equipment identification label (as required by 21 C.F.R. 1010.3).
 - (f). The timer system shall follow the requirements outlined in 21 C.F.R. 1040.20(c)(2) (paraphrased here for convenience.) Each sunlamp product shall incorporate a



timer system with multiple timer settings adequate for the recommended exposure time intervals for different exposure positions and expected results of the products as specified. The maximum timer interval(s) shall not exceed the manufacturer's recommended maximum exposure time(s). No timer interval shall have an error greater than 10 percent of the maximum timer interval of the product. The timer shall not automatically reset and cause radiation emission to resume for a period greater than the unused portion of the timer cycle, when emission from the sunlamp product has been terminated.

- (g). Tanning equipment temperature shall be maintained below 100° Fahrenheit (38° Centigrade) during its operation.
- (h). Tanning equipment shall meet the National Fire Protection Association's National Electric Code. There shall be ground fault protection on the electrical circuit of tanning equipment.
- (i). There shall be physical barriers to protect people from injury induced by touching or breaking tanning equipment lamps.
- (j). Additional requirements for stand-up booths:
 - (i). There shall be physical barriers or other methods, such as handrails or floor markings to indicate the proper exposure distance between ultraviolet lamps and the patron's skin.
 - (ii). The construction of the tanning equipment shall be such that it will have the strength to withstand the stress of use and the impact of a falling person.
 - (iii). Hand rails and non-slip floors shall be provided for safe entry to and exit from tanning equipment.

Section 233.940 Cleaning and Maintenance.

- A. Every portion of the tanning facility, including equipment and apparatus, shall be kept sanitary and maintained in good repair. A written log shall be kept on the premises and made available to the Department, any other regulatory authorities, or a member of the public upon request. This log shall include:
 - (i). Time and Date of cleaning
 - (ii). Name of individual who completed cleaning.
- B. The operator shall clean and sanitize the tanning equipment and protective goggles after each use. At the request of the patron, sanitizer and instructions on its proper use shall be provided to allow re-sanitization.



- C. Sanitization shall be carried out using U.S. Environmental Protection Agency (E.P.A.) registered sanitizer and used in accordance with the E.P.A. approved label.
- D. Defective or burned out lamps or bulbs in tanning equipment shall be replaced with a lamp or bulb intended for use in the tanning equipment and shall be of the same spectral UV distribution found on the manufacturer's specification plate.
- E. If towels or other linens are provided, they shall be cleaned and sanitized after each use. All clean towels shall be stored in a closed container.
- F. Soiled towels shall be placed in closed hampers or containers.

Section 233.950 Operation.

- A. No tanning facility operator or owner shall allow a patron to tan unless that patron has been provided a form containing the following information:
 - (1). A reasonably representative list of potential photosensitizing drugs and agents;
 - (2). Information regarding potential negative health effects related to ultraviolet exposure, including:
 - (a). The increased risk of skin cancer later in life;
 - (b). The increased risk of skin thinning and premature aging; and
 - (c). The possible activation of some viral conditions.
 - (3). Skin sensitivity; information on how different skin types respond to tanning;
 - (4). An explanation of the need to use eyewear with both ultraviolet-A (UVA) and ultraviolet-B (UVB) systems, and that closing the eyes is not sufficient to prevent possible eye damage;
 - (5). Information that tanning may be inadvisable during pregnancy; and
 - (6). Other relevant medical information as determined by the Department.
 - (a). After providing the required information and giving the patron the opportunity to read the information and ask questions, the operator shall request that the patron sign and date the form indicating that he or she has read and understood the information provided. The operator is required to have patrons review, sign, and date a new form each year. Forms must be kept at the tanning



facility and available for inspection at the Director's request.

- (b). The following warning sign shall be conspicuously posted in the immediate proximity of every unit of tanning equipment: "DANGER- Ultraviolet radiation. Follow instructions. Avoid overexposure. As with natural sunlight, overexposure can cause eye and skin injury and allergic reactions. Repeated exposure may cause premature aging of the skin and skin cancer. FAILURE TO USE PROTECTIVE EYEWEAR MAY RESULT IN SEVERE BURNS OR LONG-TERM INJURY TO THE EYES. Medications or cosmetics may increase your sensitivity to the ultraviolet radiation Consult physician before using sunlamp if you are using medications or have a history of skin problems or believe yourself especially sensitive to sunlight. If you do not tan in the sun, you are unlikely to tan from the use of this product."
- (c). All warning signs must be legible and clearly visible.
- (d). Cleaned and sanitized goggles shall be provided to each patron at the time of tanning.
- (e). A written report of any tanning injury shall be forwarded to the Department within 5 working days of the owner or operator becoming aware of its occurrence. The report shall include:
 - (i). The name and location of the tanning facility involved;
 - (ii). The nature of the injury; and
 - (iii). Any other information considered relevant to the tanning equipment involved.
- (f). Before a minor uses any tanning equipment, the minor shall provide the tanning facility operator a consent form signed by a parent or guardian of the minor. A minor is defined as an individual 17 years of age or younger.
- (g). The parent or legal guardian shall sign the consent form in the presence of the owner or a certified tanning equipment operator, indicating that he or she has read and understood the warnings required under §233.950(A).

Section 233.960 Inspections and Investigations

- A. To ensure compliance, the Department has the authority to perform inspections, investigations, reviews, and other actions as necessary.



Section 233.970 Authority for Department to Enter Premises.

- A. Regulated Commercial Premises. Upon presenting proper identification, authorized representatives of the Department may enter upon the premises of properties regulated by the Department to perform routine inspections to ensure compliance with this Chapter.
- B. Consent by License or Permit: The Department may require licensees or permittees to consent to access for inspections as part of their license or permit. Failure to allow access for inspections as set out in the license or permit may result in the suspension or revocation of the license or permit.
- C. Every tanning center shall display, without obstruction in a conspicuous place designated, designed and supplied by the Department:
 - (1). Notice stickers/placards that inform the public that the establishment is subject to inspection by the Department.
 - (2). Sign giving information on filing a complaint about the sanitation of the shop and practitioner with the Department.
 - (3). Notification to the public that the most recent inspection report and current cleaning schedule records are available for public viewing.

Section 233.972 Tanning Facility Follow-Up Inspection Fee.

- A. The Department will charge a follow-up fee to a Tanning Facility Permit holder when conditions found during an inspection require a follow-up inspection to ensure compliance. The fee for a tanning facility follow-up inspection is found in Article XV., of this Code.



ARTICLE XV. PERMITS REQUIREMENTS

The Council hereby adopts Article XV. of this code relating to permit, reinspection, late renewal fees and exemptions with the following provisions:

Section 233.980 Permit Year, Fees And Exemptions.

- A. The permit year is January first (1st) through December thirty-first (31st) and may be issued for any portion thereof to a new aquatic center or recreational facility or one that is reapplying after final suspension or revocation. All existing aquatic centers or recreational facilities holding permits must complete annual renewal, including payment of the yearly permit fee and any outstanding penalty fees for prior late payments of permit fees imposed pursuant to this provision, no later than December thirty-first (31st) of each current permit year. Fees and renewal requests must be postmarked no later than December thirty-first (31st) or a penalty fee of fifty dollars (\$50.00) per month will be assessed, in addition to the yearly permit fee. Fees are not pro-rated.
- B. The fee structure for a permit is as follows:
 - (1). Aquatic center (with only one aquatic unit): one hundred fifty dollars (\$150.00)
 - (2). Aquatic center (with multiple aquatic units): fee structure in §233.980 (B)(1) and additional seventy five dollars (\$75.00)
 - (3). Reserved.
 - (4). Recreation facility: seventy five dollars (\$75.00)
 - (5). Temporary Recreational Facility: forty five dollars (\$45.00)
 - (6). Religious, educational, non-profit, fraternal or civic organizations (excluding social or country clubs): seventy five dollars (\$75.00)
- C. The fee structure for plan review is as follows:
 - (1). Aquatic center: one hundred dollars (\$100.00)
 - (2). Reserved.
- D. All fees under this Section shall be paid to the Department for deposit with the Department of Finance of St. Charles County.
- E. The fee structure for a follow-up inspection is as follows:
 - (1). Aquatic center: thirty five dollars (\$35.00)
 - (2). Reserved.
 - (3). Recreational facility: thirty five dollars (\$35.00)
- F. A person reapplying for a permit after a final suspension or revocation shall pay the appropriate renewal fee including penalty fees for late payment that may be imposed pursuant to this Section upon reapplication.



- G. This section's requirements for fees for permits shall not apply to any incorporated city, town or village owning or operating any aquatic or recreational facility in St. Charles County.



APPENDIX A

ILLUSTRATION A. DIVING WELL DIMENSIONS

ILLUSTRATION A. DIVING WELL DIMENSIONS FOR SWIMMING POOLS

Note: This profile does not apply to a special use pool that is designed for competitive diving.

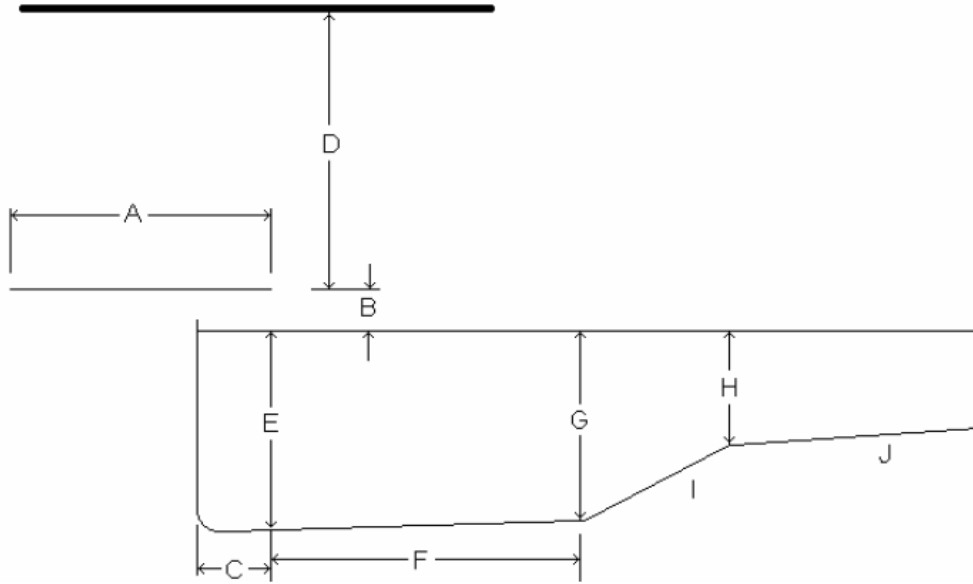


ILLUSTRATION A. DIVING WELL DIMENSIONS FOR SWIMMING POOLS



A	Maximum length of diving board	10 feet
B	Maximum height of board above water	20 inches
C	Overhang of the board from wall	Minimum: 2 feet – Max. 3 feet
D	Minimum distance to an overhead structure	15 feet
E	Minimum depth of water at the plummet	9 feet
F	Distance from plummet to start of upslope	18 feet
G	Minimum depth of water at start of the upslope	Depth of water at plummet minus 6 inches
H	Depth of water at the breakpoint	5 feet
I	Maximum slope: breakpoint towards deep end	1 foot of fall in 3 feet
J	Slope of bottom in shallow area	1 foot of fall in 10 feet
	Minimum width of pool in diving area	20 feet
	Minimum distance from plummet to pool wall at the side	10 feet



ILLUSTRATION B

MINIMUM DISTANCE REQUIREMENTS FOR DIVING BOARDS

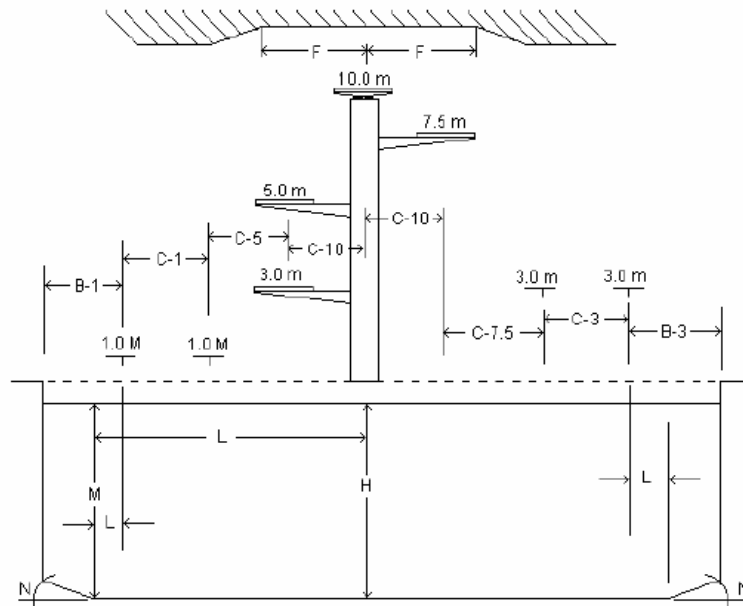
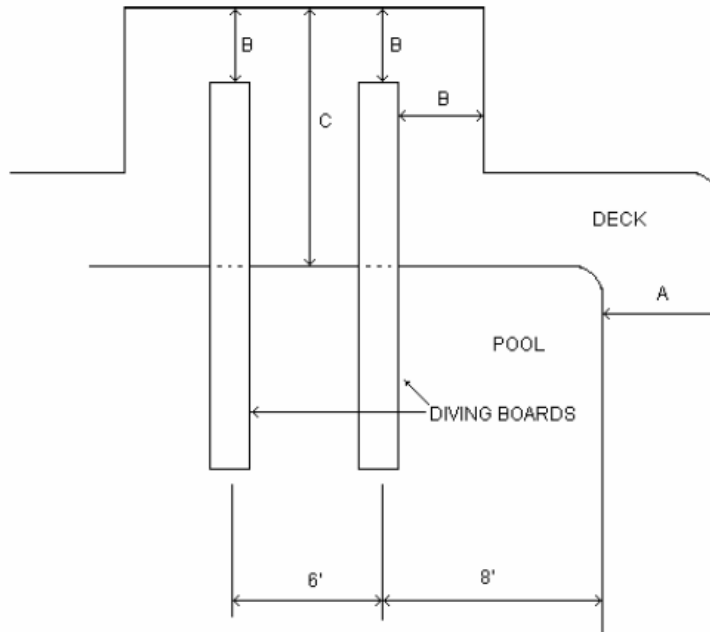
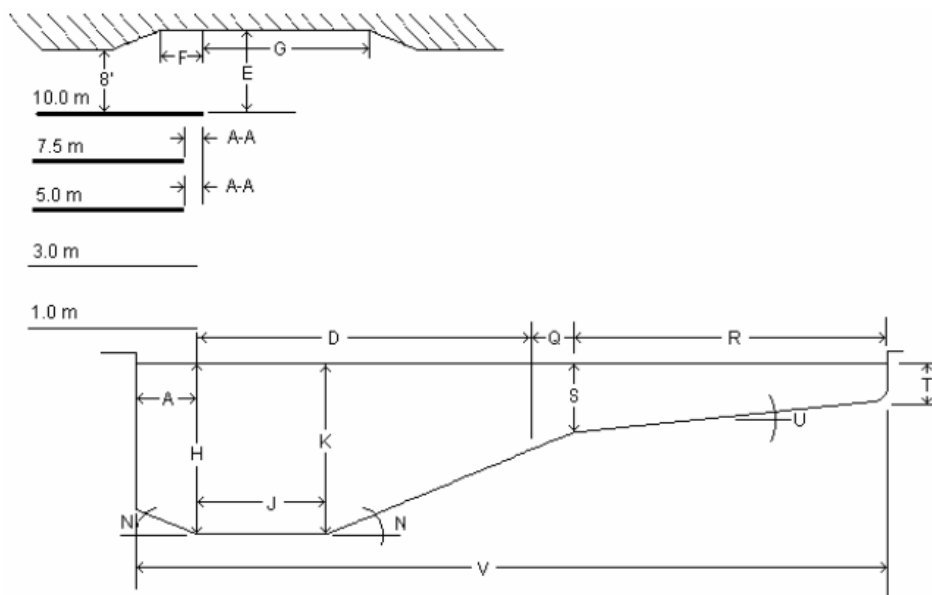


ILLUSTRATION C

	PUBLIC	SEMIPUBLIC
A	10	4
B	5	4
C	15	—

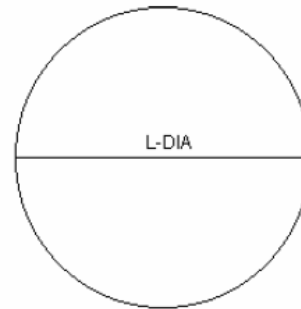
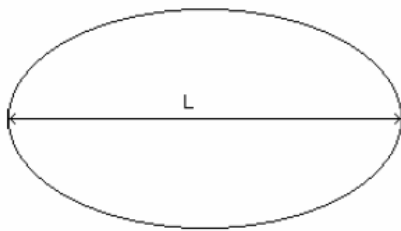
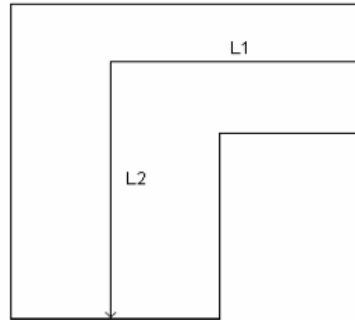
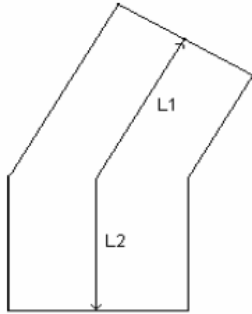
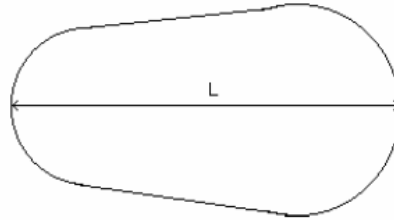
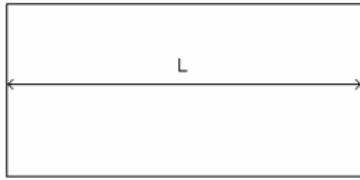
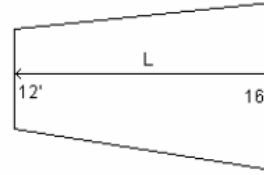
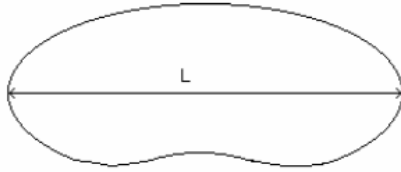


		SPRINGBOARD		PLATFORM				
		1 METER	3 METER	1 METER	3 METER	5 METER	7.5 METER	10 METER
A	From plummet back to pool wall	5'	5'	4'	4'	4'	5'	5'
A-A	Back to platform directly below					2' 6"	2' 6"	2' 6"
B	From plummet to pool wall at side	10'	12'	10'	10'	14'	15'	17'
C	From plummet to adjacent plummet	6'	6'			7'		9'
D	From plummet to pool well ahead	29'	34'	26'	31'	34'	36'	45'
E	Plummet from board to ceiling overhead	16'	16'	10'	10'	10'	10' 6"	11'
F	Clear overhead behind and each side plummet	8'	8'	9'	9'	9'	9'	9'
G	Clear overhead ahead of plummet	16'	16'	16'	16'	16'	16'	16'
H	Depth of water at plummet	11'	12'	11'	11'	12'	13' 6"	15'
J	Bottom distance ahead of plummet	20'	20'	16'	20'	20'	26'	40'
K	Bottom depth ahead of plummet	10' 9"	11' 9"	10' 9"	10' 9"	11' 9"	13'	14'
L	Bottom distance each side of plummet	8'	10' 6"	7'	9'	14'	15'	17'
M	Bottom depth each side of plummet	10' 9"	11' 9"	10' 9"	10' 9"	11' 9"	11' 9"	14'
N	Maximum slope of pool bottom	1:3	1:3	1:3	1:3	1:3	1:3	1:3
P	Maximum slope of ceiling	1:3	1:3	1:3	1:3	1:3	1:3	1:3
R	Shallow portion, 30' max	2' min	3' max					
S	Depth at change of slope	5'	5'	5'	5'	5'	5'	5'
T	Depth at shallow end	2' min 3' max	2' min 3' max	2' min 3' max	2' min 3' max	2' min 3' max	2' min 3' max	2' min 3' max
U	Slope in shallow end	1:10	1:10	1:10	1:10	1:10	1:10	1:10
V	Total length (20' shallow end)	62' 3"	65' 3"	57' 3"	61' 3"	64' 3"	75"	92"



APPENDIX B

AVERAGE WIDTH OF ALL SWIMMING POOLS



APPENDIX C

A. Public Swimming Pools Fencing Requirements

1. All public pools and walkways adjacent to such pools shall be enclosed by a durable fence or wall at least six (6) feet high to provide bather control while the pool is in operation, to exclude animals (except service animals), and to prohibit any person from using the pool except when a lifeguard is on duty. Fences, walls or artificial barriers shall:

- a. Be constructed so as to afford no external handholds or footholds;
- b. Be of materials, which are impenetrable by small children, dogs, livestock, etc.;
- c. Be a minimum of six (6) foot high above the highest practical foothold, curb, or (in the case of a combination fence) the base wall;
- d. Have openings or spacings of such size that a spherical object four (4) inches in diameter cannot pass through; and
- e. Be equipped with a self-closing and positive self-latching closure mechanism or a locking closure located at or near the top of the gate.

2. Mechanical filtering, disinfection and recirculating equipment must be protected from tampering by a suitable enclosure or fence.

B. Semipublic Swimming Pools Fencing Requirements

1. All semi-public swimming pools shall be protected by a fence, wall or other approved barrier from all parts of the premises not directly related to the swimming pool. Fences, walls or artificial barriers shall:

- a. Be constructed so as to afford no external handholds or footholds;
- b. Be of materials that are impenetrable by small children, dogs, livestock, etc.;
- c. Be of four (4) foot minimum height;
- d. Be equipped with a self-closing and positive self-latching closure mechanism located at or near the top of the gate; and
- e. Have openings or spacings of such size that a spherical object four (4) inches in diameter cannot pass through.

2. In addition, the mechanical filtering, disinfection and recirculation equipment must be protected from tampering by a suitable enclosure or fence.





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