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ONTARIO BUILDING CODE

Section 3.11. Public Pools

3.11.1. General

3.11.1.1. Application

- (1) This Regulation applies to every public pool.
- (2) This Section applies to the design and construction of site assembled and manufactured pools that are intended for use as public pools.
- (3) Where material alterations to a public pool or the equipment installed in a public pool affect the bottom slope, the water volume or the capacity of the recirculation system, the adversely affected portions shall comply with the requirements of this Code.
- (4) Where material alterations or repairs concern any pool fitting passing water and/or air in or out of the pool tank, the affected fitting shall comply with Sentences 3.11.8.1.(14) to (20).

Section 3.11A. Public Spas

3.11A.1. General

3.11A.1.1. Application

- (1) This Section applies to the design and construction of site-assembled public spas and factory-built public spas.
- (2) If material alterations to a public spa or the equipment installed in a public spa affect the bottom slope, the water volume or the capacity of the water circulation system, the adversely affected portions shall comply with the requirements of this Code.
- (3) Except as provided in Sentence (4), if material alterations or repairs concern any pool fitting that passes water or air, or both, in or out of the pool tank, the affected fitting shall comply with Sentences 3.11.8.1.(20) and 3.11A.4.1.(4) to (10).
- (4) If the material alterations or repairs concern a fitting cover or grille, the affected fitting cover or grille shall comply with Sentences 3.11A.4.1.(7) to (10).
- (5) For the purposes of this Section, every reference to a public pool or a recirculation system in a definition in Article 1.1.3.2., or a Sentence or Clause in Section 3.11. that is made applicable to public spas by this Section, shall be deemed to be a reference to a public spa or water circulation system, respectively.

3.11A.2. Public Spa and Deck Design and Construction Requirements

3.11A.2.1. Construction Requirements

(1) In addition to the requirements of this Subsection, public spas shall comply with the requirements of Sentences 3.11.3.1.(13) to (17), (19), (20) and (22) and Clause 3.11.3.1.(24)(a).

(2) A public spa shall be constructed to have a water depth of not more than 1 200 mm.

(3) The slope of the bottom of any portion of a public spa shall not exceed 8%.

(4) A public spa shall be surrounded by a hard-surfaced pool deck that

(a) shall have a minimum clear deck space of not less than 1.8 m at the main entrance point,

(b) shall have a clear deck space of 900 mm on all sides, except as required by Clause (a) and permitted by Sentence (5),

(c) shall be sloped away from the pool to waste drains or to adjacent lower ground at a slope of between 2% and 4%, in the case of an outdoor public spa, and

(d) shall be impervious and sloped away from the pool to waste drains at a slope of between 1% and 4%, in the case of an indoor public spa.

(5) One section of the hard-surfaced pool deck that does not exceed 25% of the perimeter of the public spa may have a minimum clear deck space of not more than 300 mm if

(a) the public spa has an area less than 6 m², and

(b) the public spa has no interior dimension more than 2.5 m.

(6) The maximum depth of water to a seat or bench in a public spa shall be 600 mm.

(7) If a set of steps is provided for entry into and egress from the public spa water, the steps

(a) shall be equipped with a handrail,

(b) shall have a non-slip surface, and

(c) shall have a band of contrasting colour along the entire juncture of the side and top of the edges.

(8) Every public spa shall be provided with dressing rooms, water closets and shower facilities that are conveniently available on the premises.

3.11A.3. Ramps Into Public Spas

3.11A.3.1. Ramps into Spas

(1) Not more than 50% of the total perimeter of a public spa may be replaced by one or more ramps that permit a bather seated in a wheelchair to enter the water with or without the wheelchair.

(2) If a public spa has one or more ramps described in Sentence (1), the public spa shall comply with Sentences 3.11.5.1.(1) to (3) and (5) to (8).

3.11A.4. Water Circulation for Public Spas

3.11A.4.1. Water Circulation Systems

(1) In addition to the requirements of this Subsection, the water circulation system of a public spa shall comply with the requirements of Sentences 3.11.8.1.(2), (3), (6), (7), (9), (10), (11), (13) and (20).

(2) A public spa shall be equipped with a water circulation system that is capable of filtering, disinfecting and passing the public spa water through the public spa with a turnover period of not more than

- (a) 30 minutes for a public spa with a volume of water that exceeds 6 m³,
- (b) 20 minutes for a public spa with a volume of water that exceeds 4 m³ but does not exceed 6 m³, or
- (c) 15 minutes for a public spa with a volume of water that does not exceed 4 m³.
- (3) If cartridge-type filters are used for a public spa, the filters shall be a surface-type that is designed for a maximum flow rate of 0.27 L/s/m² of effective filter area.
- (4) Except as provided in Sentence (6), every circulation system in a public spa shall be served by a minimum of two suction or gravity outlets
 - (a) that are interconnected to a full size manifold, and
 - (b) except as provided in Sentence (5), that are separated by a clear distance of not less than 900 mm.
- (5) If compliance with Clause (4) (b) is impracticable because of dimensional restrictions at the bottom of the public spa, the outlets may be located on two different planes of the public spa if
 - (a) at least one of the outlets through which the public spa can be emptied to a full-size manifold is located on the bottom of the public spa, and
 - (b) the bottom of all outlets, other than skimmers, are not more than 75 mm from the floor of the public spa.
- (6) A circulation system in a factory-built public spa may be served by a built-in suction or gravity outlet with multiple openings that are connected to a full-size manifold.
- (7) All fittings at or below the water surface that allow water or air or both to be passed to or from the public spa shall be securely held in place by corrosion resistant fastening that requires a tool for removal and is galvanically compatible with the fittings and grilles or covers.
- (8) Except as provided in Sentence (9), all suction or gravity fittings installed at or below the water line of a public spa shall
 - (a) have a maximum opening of 7 mm in one direction, and
 - (b) be designed so that the flow of water through the openings does not exceed 0.45 m/s.
- (9) Sentence (8) does not apply to suction and gravity outlets which are equipped with anti-entrapment covers that comply with the requirements of ANSI/ASME A112.19.8M, "Suction Fittings for Use in Swimming Pools, Wading Pools, Spas, Hot Tubs, and Whirlpool Bathtub Appliances".
- (10) The calculation of water velocities for the purposes of Clause (8) (b) and Sentences (11) and (12) and the calculation of water flow rates for the purposes of Sentence (9) shall be based on the assumption that all possible sources of suction flow are present at the same time.
- (11) The water velocity in a suction pipe shall not exceed 1.8 m/s.
- (12) The water velocity in a pressure pipe shall not exceed
 - (a) 3.0 m/s for plastic piping, and
 - (b) 1.8 m/s for copper piping.
- (13) Every suction system that serves a public spa shall be equipped with a vacuum relief mechanism which shall include
 - (a) a vacuum release system,
 - (b) a vacuum limit system, or

(c) other engineered systems which are designed, constructed and installed to conform to good engineering practice appropriate to the circumstances.

(14) Equipment shall be installed to continuously disinfect the water in a public spa by means of a chlorination, hypochlorination or bromination system that is capable of regulating the dosage of chlorine or bromine.

(15) If a two-speed pump is utilized for a public spa, the filter and heater shall be sized to accommodate the maximum pump output, without exceeding the manufacturer's design flow rate of the filter element or heater and without by-passing the filter element.

(16) A public spa equipped with hydro-massage jet fittings shall be provided with a timing device

(a) that controls the period of operation of the jet pump, and

(b) that is placed in a location where the user must exit the public spa to reset the timer.

(17) A public spa water heater shall be equipped with an upper limit cut-off device

(a) that is independent of the normal public spa water temperature thermostat, and

(b) that limits the maximum water temperature of the public spa to 40°C.

(18) A public spa shall be equipped with a water circulation system that is capable of both completely and partially draining and refilling the public spa water.

3.11A.5. Emergency Provisions for All Public Spas

3.11A.5.1. Lighting and Emergency Provisions

(1) In addition to the requirements of this Subsection, public spas shall comply with the requirements of Sentences 3.11.10.1.(1) to (6).

(2) An emergency telephone directly connected to an emergency service or to the local telephone utility shall be installed within 30 m of the public spa.

(3) All pumps used in a public spa shall be capable of being deactivated by an emergency stop button that is clearly labelled and located within the immediate vicinity of the public spa.

(4) The emergency stop button required in Sentence (3)

(a) shall be a switch separate from the public spa's timing device,

(b) shall activate an audible and a visual signal when used, and

(c) shall have an emergency sign conforming to Sentence 3.11.10.1.(14).

(5) If a public spa and public pool are located in the same room or space, the emergency stop buttons required in Sentences (3) and 3.11.10.1.(12) shall deactivate all pumps serving the public spa and public pool.

3.11A.6. Service Rooms and Storage for All Public Spas

3.11A.6.1. Service Rooms and Storage Facilities

(1) Service rooms and storage facilities for all public spas shall comply with the requirements of Article

3.11.11.1.

3.11.2. Designations of Public Pools

3.11.2.1. Pool Designations

(1) Every public pool shall be designated as being either a Class A pool or a Class B pool in accordance with Sentence (2) or (3).

(2) A Class A pool is a public pool to which the general public is admitted or that is

(a) operated in conjunction with or as a part of a program of an educational, instructional, physical fitness or athletic institution or association, supported in whole or in part by public funds or public subscription, or

(b) operated on the premises of a recreational camp, for use by campers and their visitors and camp personnel.

(3) A Class B pool is a public pool that is

(a) operated in conjunction with six or more dwelling units, suites, single family residences, or any combination thereof for the use of occupants or residents and their visitors,

(b) operated in conjunction with a mobile home park for the use of residents or occupants and their visitors,

(c) operated on the premises of a hotel for the use of its guests and their visitors,

(d) operated on the premises of a campground for the use of its tenants and their visitors,

(e) operated in conjunction with a club for the use of its members and their visitors, or

(f) operated in conjunction with an establishment or institution classified in Table

3.1.2.1. as,

(i) Group B, Division 1, major occupancy, or

(ii) Group B, Division 2 or 3, major occupancy, for the use of residents or occupants and their visitors.

3.11.3. Pool and Pool Deck Design and Construction Requirements for all Class A and Class B Pools

3.11.3.1. Construction Requirements

25. (1) Sentence 3.11.3.1.(1) of Division B of the Regulation is amended by striking out “Sentences (2) to (26)” at the end and substituting “Sentences (2) to (26) and Articles 3.11.3.2. and 3.11.3.3.”.

(1) Except as otherwise required in Subsections 3.11.4., 3.11.5., 3.11.6., and 3.11.7. or otherwise exempted in Sentences (2) and (3), Class A pools and Class B pools shall be designed and constructed to comply with Sentences ~~(2) to (25)~~. **“Sentences (2) to (26) and Articles 3.11.3.2. and 3.11.3.3.”.**

(2) Where a Class B pool is constructed for use solely in conjunction with a club, child care facility, day camp or establishment or institution for the care of persons who are infirm, aged or in custodial care, the pool shall be exempt from the requirements of Clause (9)(a) and Sentences (13) and (14).

(2) Sentence 3.11.3.1.(3) of Division B of the Regulation is amended by striking out “persons who are disabled or ill” and substituting “persons with disabilities or persons who are ill”.

(3) Where a Class B pool is constructed for use solely in conjunction with an establishment or institution for the treatment of ~~persons who are disabled or ill~~, **persons with disabilities or persons who are ill** the pool shall be exempt from the requirements of Sentences (6) and (7), Clause (9)(a) and Sentences (13) and (14).

(4) A public pool shall be constructed to have a water depth of not less than 750 mm except for

- (a) a modified pool,
- (b) a wave action pool,
- (c) a pool for therapeutic use,
- (d) a beach entry ramp, and

(3) Clause 3.11.3.1.(4)(e) of Division B of the Regulation is amended by striking out “Sentence 3.11.5.1.(1)” at the end and substituting “Sentence 3.11.5.2.(1)”.

(e) a pool described in ~~Sentence 3.11.5.1.(1)~~. **Sentence 3.11.5.2.(1)**

(5) The beach entry ramp permitted in Clause 4(d) shall be protected with permanent barriers between 900 mm to 1 200 mm along the pool deck to prevent entry into the pool until the minimum water pool depth is 750 mm.

(6) Except for a modified pool, a wave action pool and a pool used exclusively for scuba diving, the slope of the bottom of any portion of a public pool shall not exceed

- (a) 8% where the water depth is 1 350 mm or less,
- (b) 33% where the water depth is more than 1 350 mm and less than 2 000 mm, and
- (c) 50% where the water depth is 2 000 mm or more.

(7) Except for a modified pool and wave action pool, where the slope of any portion of the bottom of a public pool is more than 8%, the walls of the pool shall be equipped with recessed fittings to which a safety line supported by buoys can be attached across the surface of the water and the recessed fittings shall be installed at a horizontal distance of at least 300 mm measured from the vertical projection of the top of the slope in the direction of the shallow end of the pool.

(4) Sentence 3.11.3.1.(8) of Division B of the Regulation is amended by striking out “Sentence 3.11.5.1.(1)” and substituting “Sentence 3.11.5.2.(1)”.

(8) Except for a modified pool, wave action pool and a pool described in ~~Sentence 3.11.5.1.(1)~~,

Sentence 3.11.5.2.(1) the side and end walls of a public pool shall be vertical from the top of the walls to within 150 mm of the bottom except at steps or recessed ladders or in water depths of 1 350 mm or more.

(9) Except for a modified pool and wave action pool and except as provided in Sentence (11), a public pool shall be surrounded by a hard-surfaced pool deck that shall

(5) Clause 3.11.3.1.(9)(a) of Division B of the Regulation is revoked and the following substituted:

(a) except for a pool described in Sentence 3.11.5.2.(1), be not less than 1 800 mm wide,

~~-(a) except for a pool described in Sentence 3.11.5.1.(1), be not less than 1 800 mm wide and provide at least 900 mm width of clear passage,~~

- (i) behind any diving board and its supporting structure, and
- (ii) between any column piercing the deck and the edge of the pool or between the column and outer perimeter of the pool deck,

- (b) in the case of an outdoor pool, be sloped away from the pool to waste drains or to adjacent lower ground at a slope of between 2% and 4%, and
- (c) in the case of an indoor pool, be impervious and sloped away from the pool to waste drains at a slope of between 1% and 4%.
- (10) Where a public pool is constructed with a ledge, the ledge shall
 - (a) be placed only in parts of the pool where the water depth is 1 350 mm or more,
 - (b) be not more than 200 mm wide,
 - (c) be at least 1 000 mm below the water surface,
 - (d) where located on the side of the pool, be gradually tapered towards the shallow end of the pool in such a manner as to prevent a harmful obstruction, and
 - (e) have a band of contrasting colour along the entire juncture of the side and top of the ledge.
- (11) Notwithstanding Sentences (12) to (16), where a public pool is constructed on any level surface with walls rising above that surface and has a constant water depth not exceeding 1 100 mm and a water surface area not exceeding 100 m², the pool deck may be an elevated platform surrounding the pool if it has
 - (a) an unobstructed width of not less than 900 mm,
 - (b) a height of at least 75 mm above grade or pavement elevation,
 - (c) 6 mm wide openings for drainage, and
 - (d) a non-slip surface that is capable of being kept clean and disinfected.
- (12) Except for a modified pool and wave action pool, where a pool deck projects over the water surface, the projection shall not exceed 50 mm.
- (13) Except for a modified pool and wave action pool, the pool deck shall be separated from any adjacent spectator area or gallery and from any spectator access to such area or gallery by a gate or other barrier.

(6) Sentence 3.11.3.1.(14) of Division B of the Regulation is revoked and the following substituted:

~~(14) Except for a modified pool and wave action pool, the perimeter of the pool deck shall be clearly delineated by painted lines or other means where any area contiguous to the pool deck may be confused with the deck.~~

(14) Except for a modified pool and wave action pool, the perimeter of the pool deck shall be clearly delineated by a tactile attention indicator conforming to Article 3.8.3.18. and located where any area contiguous to the pool deck may be confused with the deck.

- (15) Perimeter drainage shall be provided where necessary to prevent surface run-off from draining onto the pool deck.
- (16) Except for a modified pool, one or more hose bibs shall be installed near the perimeter of the pool deck in locations convenient for flushing the pool deck.
- (17) Except for a modified pool and wave action pool, where access to the pool enclosure is over any surface that is not subject to regular cleaning and sanitizing, a foot spray to wash feet by means of a spray running freely to waste shall be provided at each such access.

(7) Sentence 3.11.3.1.(18) of Division B of the Regulation is revoked and the following substituted:

~~(18) Except for a modified pool and wave action pool, at least one ladder or set of steps shall be provided in both the deep and shallow areas of a public pool for entry into and egress from the pool water.~~

(a) one ladder or set of steps shall be provided in both the deep and shallow areas of a public pool for entry into and egress from the pool water, and

(b) one barrier-free access shall be provided for entry into and egress from the water of a public pool as required by Article 3.11.3.3.

(19) The pool deck, the submerged parts of a public pool, the walls or partitions adjacent to a pool deck and the pavement or floor adjacent to a pool deck shall have surfaces that permit thorough cleaning.

(20) Except for markings for safety or competition purposes, submerged surfaces in public pools shall be finished white or light in colour.

(21) Except in a modified pool, a black disc 150 mm in diameter on a white background shall be affixed to the bottom of a public pool within the area of its greatest depth.

(22) A public pool shall be equipped with lockable doors or other barriers capable of preventing public access to the pool deck.

(23) Except for a modified pool, wave action pool or a pool installed at a recreational camp, a Class A pool shall be provided with

(a) where the water surface area is greater than 150 m² but not greater than 230 m², at least one lifeguard control station, and

(b) where the water surface area is greater than 230 m², at least two lifeguard control stations.

(24) Except for a modified pool, every public pool shall display on the deck clearly marked figures, not less than 100 mm high, that set out

(a) the water depths indicating the deep points, the breaks between gentle and steep bottom slopes and the shallow points,

(b) the words SHALLOW AREA at one or more appropriate locations, and

(c) where the water depth exceeds 2 500 mm, the words DEEP AREA at one or more appropriate locations.

(8) Sentence 3.11.3.1.(25) of Division B of the Regulation is revoked and the following substituted:

~~(25) Except for a modified pool and a pool to which Sentence 3.11.5.1.(4) applies, every public pool having a maximum water depth of 2 500 mm or less shall display a warning notice posted in a location clearly visible to divers on which is printed in letters at least 150 mm high, the words CAUTION — AVOID DEEP DIVES or SHALLOW WATER — NO DIVING.~~

(25) Except for a modified pool and a pool to which Sentence 3.11.5.2.(2) applies, every public pool having a maximum water depth of 2 500 mm or less shall display a warning notice posted in a location clearly visible to divers on which are printed in letters at least 150 mm high the words CAUTION — AVOID DEEP DIVES or SHALLOW WATER — NO DIVING.

26. Subsection 3.11.3. of Division B of the Regulation is amended by adding the following Articles:

3.11.3.2. Barrier-Free Path of Travel for Outdoor Pool Deck

(1) Where an outdoor pool is provided, a barrier-free path of travel shall be provided to and throughout the normally occupied portions of the pool deck.

3.11.3.3. Access into Public Pools

(1) Access for entry into and egress from the water of a public pool provided in a storey that is required by Article 3.8.2.1. to have a barrier-free path of travel shall be barrier-free and shall be provided by,

(a) a ramp conforming to,

(i) Article 3.11.5.1., and

**(ii) Article 3.11.5.2., in the case of a pool described in Sentence 3.11.5.2.(1), or
(b) a pool lift conforming to the manufacturer's specifications and installation instructions and conforming to Sentences (2) to (6).**

(2) Except where the entire pool depth is greater than 1 220 mm, where a pool lift is installed, at least one lift shall be located where the water level does not exceed 1 220 mm.

) The centre line of the seat for the pool lift shall be located over the deck and a minimum of 400 mm from the edge of the pool when in the raised position.

(4) A clear deck space located parallel with the seat for the pool lift and on the side of the seat opposite the water shall,

(a) be at least 915 mm wide, and

(b) extend forward not less than 1 220 mm from a line located 305 mm behind the rear edge of the seat.

(5) The pool lift shall be,

(a) designed to be operable without assistance from both the deck and water, and

(b) designed so that, when in use, its controls and operating mechanisms are unobstructed.

(6) The pool lift shall,

(a) have a weight capacity of at least 135 kg, and

(b) be capable of sustaining a static load of at least 1.5 times the rated load.

3.11.4. Public Pools Equipped with Diving Boards or Diving Platforms

3.11.4.1. Diving Boards or Platforms

(1) No diving board or diving platform shall be installed in a public pool unless the requirements of Sentences (5) to (17) are met but the requirements for a diving platform do not apply to a starting platform.

(2) No diving board or diving platform shall be installed in a modified pool or a wave action pool.

(3) Where a public pool is equipped with a diving board or a diving platform, the board or platform shall have a non-slip surface.

(4) Where a diving board or a diving platform in a public pool is more than 600 mm above the water surface, the board or platform shall be equipped with one or more adjacent handrails.

(5) Where a public pool is equipped with a diving board or a diving platform not more than 3 m in height above the water surface, the pool shall be designed and constructed in conformance with Sentences (6) to (15).

(6) The depth of water in the area directly below a horizontal semi-circle in front of a diving board or diving platform having a radius of 3 m measured from any point on the front end of the board or platform shall not be less than

(a) 2 750 mm, where a board is 600 mm or less in height above the water surface,

(b) 3 m, where a board or platform is greater than 600 mm but not more than 1 000 mm in height above the water surface, and

(c) 3.65 m, where a board or platform is greater than 1 000 mm but not more than 3 m in height above the water surface.

(7) Except as permitted in Sentence (8), the water depth in a public pool shall be at least 1 350 mm at the horizontal arc having a radius of 9 m measured from any point on the front end of the diving board or diving platform and intersecting the vertical projections of the walls of the pool.

(8) Where a Class B pool is equipped with a diving board 600 mm or less in height above the water

(a) the water depth shall be at least 1 350 mm at the horizontal arc having a radius of 7.5 m measured from

any point on the front end of the diving board, and

(b) a warning notice, on which is printed in letters at least 150 mm high, the words DANGER – AVOID DEEP OR LONG DIVES, shall be posted in a location clearly visible to divers.

(9) The slope of the bottom of a public pool having a diving board or diving platform shall not change by more than 17% where the water depth is less than the applicable depth set out in Sentence (6) and greater than the depth set out in Sentence (7) or (8), as applicable.

(10) The horizontal distance between the vertical projection of the centre line of a diving board or diving platform and the vertical projection of the centre line of another board or platform shall be at least 2 750 mm.

(11) The horizontal distance between the centre line of a diving board or diving platform and the vertical projection of the closest side or any ledge on the closest side of a public pool shall be at least

(a) 3 m, where a diving board or diving platform is 1 000 mm or less in height above the water surface, and

(b) 3.6 m, where a diving board or diving platform is greater than 1 000 mm in height above the water surface.

(12) A diving board or a diving platform 600 mm or less in height above the water surface shall project over the water a horizontal distance of at least 900 mm from the vertical projection of a pool wall under it.

(13) A diving board greater than 600 mm in height above the water surface shall project over the water a horizontal distance of at least 1 500 mm from the vertical projection of the pool wall under it.

(14) A diving platform greater than 600 mm in height above the water surface shall project a horizontal distance of at least 1 200 mm from the vertical projection of the pool wall under it.

(15) The space above a diving board or diving platform shall be unobstructed and shall consist of at least

(a) a space having a width of 2 500 mm on each side of the centre line of the board or platform, a length equal to the sum of the horizontal distance the board or platform projects over the water plus 3 m, and a height of

(i) 3.65 m above a diving board 3.65 m or less in length,

(ii) 5 m above a diving board greater than 3.65 m in length, or

(iii) 3 m above a diving platform, and

(b) the space below the planes originating from the front and sides of the uppermost horizontal plane of the space determined under Clause (a) and sloping downwards at 30° from the horizontal.

(16) A diving board or diving platform greater in height than 3 m above the water surface shall be equipped with a gate, barrier or other device capable of preventing access thereto.

(17) Where a public pool is to be equipped with diving boards or diving platforms greater than 3 m in height above the water surface, the design of the diving boards or diving platforms and the corresponding water depths and clearances shall be in accordance with the "Rules and Laws Governing Swimming, Diving, Water Polo and Synchronized Swimming" published in 1984 by FINA.

3.11.5. Ramps into Public Pools in Group B, Division 2 or 3, Major Occupancies

27. Subsection 3.11.5. of Division B of the Regulation is revoked and the following substituted:

3.11.5. Ramps into Public Pools

3.11.5.1. Ramps into Public Pools

(1) Where barrier-free access for entry into and egress from the water of a public pool is provided by a ramp as required by Clause 3.11.3.3.(1)(a), the pool shall be designed and constructed in accordance with Sentences (2) to (4).

(2) A ramp shall have,

(a) along each side a handrail that,

(i) has a height of not less than 865 mm and not more than 965 mm, and

(ii) runs parallel to the slope of the ramp,

(b) a width of at least 1 100 mm,

(c) a curb or other means to prevent a wheelchair from falling off the side of the ramp,

(d) surface finishes capable of being kept clean, sanitary and free from slipperiness, and

(e) a landing at the bottom at least 1 500 mm in length and the same width as the ramp.

(3) Where a ramp that is not submerged is adjacent to the pool wall and is used for access to the water, the pool shall be constructed so that,

(a) the landing at the bottom of the ramp is at least 450 mm but not more than 550 mm below the top of the wall separating the ramp from the pool,

(b) the landing is equipped with a floor drain at its lowest point,

(c) the top of the wall between the pool and the ramp is at least 250 mm and not more than 300 mm in width,

- (d) the pool deck is capable of accommodating a movable barrier separating the deck from the ramp,
 - (e) the water depth at the landing is accurately and clearly marked at the landing in figures at least 100 mm high on the top of the wall separating the pool from the ramp, and
 - (f) the ramp has a slope not exceeding 1 in 12.
- (4) Where a submerged ramp is adjacent to the pool wall and is used for access to the water, the pool shall be constructed so that,
- (a) the water depth at the bottom of the ramp is at least 600 mm and not greater than 900 mm,
 - (b) a hard-surfaced area that is at least 750 mm wide is contiguous to the entire length of the part of the submerged ramp that pierces any part of the deck,
 - (c) the area described in Clause (b) is capable of accommodating a movable barrier separating the area from the deck,
 - (d) the finishes in submerged portions of the ramps and curbs are different in colour or shade from each other and from that of the pool walls and bottom, and
 - (e) the submerged ramp has a slope not exceeding 1 in 9.

3.11.5.1. Ramps into Pools

- (1) Notwithstanding Sentences 3.11.3.1.(4) and (7) and Clause 3.11.3.1.(9)(a), where a public pool is constructed in a building containing a Group B, Division 2 or 3, major occupancy, and has a water depth not exceeding 1 500 mm and a water surface area not exceeding 100 m², the pool deck contiguous to not more than 50% of the total perimeter of the pool may be replaced by one or more ramps that will permit a bather seated in a wheelchair to enter the water with or without the wheelchair.
- (2) Where a public pool has one or more ramps as described in Sentence (1), the pool shall be designed and constructed to comply with Sentences (3) to (8).
- (3) A ramp referred to in Sentence (1) shall have
- (a) a handrail having a height between 800 mm and 900 mm along each side of the ramp and running parallel to the slope of the ramp;
 - (b) a width of at least 1 100 mm;
 - (c) a curb or other means to prevent a wheelchair from falling off the side of the ramp;
 - (d) surface finishes capable of being kept clean, sanitary and free from slipperiness; and
 - (e) a landing at the bottom at least 1 500 mm in length and the same width as the ramp.
- (4) Notwithstanding Sentence 3.11.3.1.(25), a warning notice, on which is printed in letters at least 150 mm high, the words CAUTION—NO DIVING, shall be posted conspicuously on each wall or fence line enclosing the pool.
- (5) There shall be a curb along the perimeter of the pool except at steps, ladders and ramp entrances:
- (6) The curb shall have
- (a) a height of 50 mm;
 - (b) rounded edges;
 - (c) a coved base; and
 - (d) a raised nosing at the top to serve as a fingerhold for a bather in the water.

- (7) Where a ramp that is not submerged is adjacent to the pool wall and is used for access to the water, the pool shall be constructed so that
- (a) the landing at the bottom of the ramp is at least 450 mm but not more than 550 mm below the top of the wall separating the ramp from the pool,
 - (b) the landing is equipped with a floor drain at its lowest point,
 - (c) the top of the wall between the pool and the ramp is at least 250 mm and not more than 300 mm in width,
 - (d) the pool deck is capable of accommodating a movable barrier separating the deck from the ramp,
 - (e) the water depth at the landing shall be accurately and clearly marked at the landing in figures at least 100 mm high on the top of the wall separating the pool from the ramp, and
 - (f) the ramp shall have a slope not exceeding 8%.
- (8) Where a submerged ramp is adjacent to the pool wall and is used for access to the water, the pool shall be constructed so that
- (a) the water depth at the bottom of the ramp is at least 600 mm and not greater than 900 mm,
 - (b) a hard surfaced area that is at least 750 mm wide is contiguous to the entire length of the part of the submerged ramp that pierces any part of the deck,
 - (c) the area described in Clause (b) is capable of accommodating a movable barrier that separates the area from the deck,
 - (d) the finishes in submerged portions of the ramps and curbs are different in colour or shade from each other and from that of the pool walls and bottom, and
 - (e) the submerged ramp has a slope not exceeding 11%.

3.11.5.2. Public Pools in Group B, Division 2 or 3 Major Occupancies

- (1) Despite Sentences 3.11.3.1.(4) and (8) and Clause 3.11.3.1.(9)(a), where a public pool is constructed in a building containing a Group B, Division 2 or 3 major occupancy and has a water depth not exceeding 1 500 mm and a water surface area not exceeding 100 m², the pool deck contiguous to not more than 50% of the total perimeter of the pool may be replaced by one or more ramps that will permit a bather seated in a wheelchair to enter the water with or without the wheelchair.**
- (2) Despite Sentence 3.11.3.1.(25), a warning notice, on which are printed in letters at least 150 mm high the words CAUTION — NO DIVING, shall be posted conspicuously on each wall or fence line enclosing a pool described in Sentence (1).**
- (3) There shall be a curb along the perimeter of a pool described in Sentence (1) except at steps, ladders and ramp entrances.**
- (4) The curb required by Sentence (3) shall have,**
- (a) a height of 50 mm,**
 - (b) rounded edges,**
 - (c) a coved base, and**
 - (d) a raised nosing at the top to serve as a fingerhold for a bather in the water.**
- 28. (1) Sentence 3.11.6.1.(1) of Division B of the Regulation is revoked and the following substituted:**

(1) A modified pool is exempt from Sentences 3.11.3.1.(4) to (9), (12), (13), (14), (16), (17), (18), (21), (23), (24) and (25), Sentence 3.11.8.1.(12) and Article 3.11.3.3.

(2) Sentence 3.11.6.1.(4) of Division B of the Regulation is amended by striking out “exceed 8%” at the end and substituting “exceed 1 in 12”.

29. (1) Sentence 3.11.7.1.(1) of Division B of the Regulation is revoked and the following substituted:

(1) A wave action pool is exempt from Sentences 3.11.3.1.(4) to (9), (12), (13), (14), (17), (18) and (23), Sentence 3.11.8.1.(12) and Article 3.11.3.3.

(2) Sentence 3.11.7.1.(3) of Division B of the Regulation is revoked and the following substituted:

(3) The slope of the bottom of any portion of a wave action pool,

(a) shall not exceed 1 in 12 where the still water depth is less than 1 000 mm, and

(b) shall not exceed 1 in 9 where the still water depth is 1 000 mm or more.

30. Subsection 3.12.3. of Division B of the Regulation is revoked and the following substituted:

3.11.6. Modified Pools

3.11.6.1. Construction Requirements

(1) A modified pool is exempt from Sentences (4) to (9), (12), (13), (14), (16), (17), (18), (21), (23), (24) and (25) of Article 3.11.3.1. and Sentence 3.11.8.1.(12).

(2) A modified pool shall be designed and constructed to comply with Sentences (3) to (9).

(3) A modified pool and its pool deck shall be constructed of hard-surfaced material that permits thorough cleaning.

(4) The slope of the bottom of any portion of a modified pool shall not exceed 8%.

(5) The depth of the water in any portion of a modified pool shall not be more than 1 800 mm.

(6) A modified pool shall be surrounded on all sides by a hard-surfaced pool deck that shall

(a) be at least 3 m wide,

(b) have a continuous crest surrounding the pool at least 100 mm above the pool water surface, and

(c) be sloped to shed water from the crest to the outer perimeter of the pool deck.

(7) A modified pool shall be provided with two or more drain fittings covered with protective grilles with openings having an aggregate area of at least 10 times the internal cross-sectional area of the outlet pipe or pipes connected to the recirculation system that is capable of completely draining the pool.

(8) Provision shall be made for lifeguard control stations adjacent to the edge of the water at intervals of not more than 60 m.

(9) The bottom of a modified pool shall be marked with continuous black contour lines

(a) 150 mm wide located where the water depth is 600 mm, and

(b) 300 mm wide located where the water depth is 1 200 mm.

3.11.7. Wave Action Pools

3.11.7.1. Construction Requirements

- (1) A wave action pool is exempt from Sentences (4) to (9), (12) to (14), (17), (18) and (23) of Article 3.11.3.1. and Sentence 3.11.8.1.(12).
- (2) A wave action pool shall be designed and constructed to comply with Sentences (3) to (11).
- (3) The slope of the bottom of any portion of a wave action pool
 - (a) shall not exceed 8% where the still water depth is less than 1 000 mm, and
 - (b) shall not exceed 11% where the still water depth is 1 000 mm or more.
- (4) The walls of a wave action pool shall be vertical from the water surface to within 150 mm of the bottom.
- (5) There shall be a hard-surfaced pool deck at least 3 m wide immediately adjacent to the pool wall at the shallow end of the pool and at least 1 500 mm wide immediately adjacent to all walls of the pool.
- (6) Provision shall be made for two or more lifeguard control stations on each side of the pool deck adjacent to which the still water depth exceeds 1 000 mm.
- (7) Sets of steps or ladders recessed into pool side walls and having continuous vertical grab bars on each side thereof shall be located at intervals of not more than 7.5 m along portions of the pool where the still water depth exceeds 1 000 mm, except that no steps or ladders shall be located within 3 m of the corners at the deep end of the pool.
- (8) Except at recessed steps or ladders, the pool deck along each side of a wave action pool adjacent to which the water depth is 2 300 mm or less shall be equipped with a barrier supported by posts or a wall that
 - (a) is 1 000 mm in height,
 - (b) is located 1 000 mm or less from the side of the pool, and
 - (c) has warning notices affixed thereto at intervals not exceeding 7.5 m signifying clearly that jumping and diving are prohibited along the sides of the pool.
- (9) Skimming devices shall be designed and suitably located to remove surface film when no waves are induced in a wave action pool.
- (10) A system capable of deactivating the wave-making equipment shall be installed with readily accessible push buttons located on the pool deck not more than 30 m apart, adjacent to each side and the deep end of the pool.
- (11) A wave action pool shall be equipped with a first-aid room located within 50 m of the pool.

3.11.8. Recirculation for Public Pools

3.11.8.1. Recirculation Systems

- (1) Every public pool shall be equipped with a recirculation system.
- (2) For the purposes of this Subsection, the water in a public pool and its recirculation system shall be deemed not to be potable water.
- (3) The water in a public pool and its recirculation system shall be separated from the potable water supply and from the sewer or drainage system into which it drains by air gaps or other devices that prevent
 - (a) the water in the pool or its recirculation system from flowing back into the potable water supply, and

- (b) the water in the sewer or drainage system from flowing back into the pool or its recirculation system.
- (4) The recirculation system of a public pool shall be designed, constructed and equipped to comply with Sentences (5) to (20).
- (5) The recirculation system of a public pool shall be capable of filtering, disinfecting and passing through the pool each day a volume of water of at least
- (a) in the case of a Class A pool, other than a modified pool or a wave action pool, six times the total water volume of the pool,
- (b) in the case of a Class B pool, other than a wave action pool, four times the total water volume of the pool,
- (c) in the case of a modified pool, three times the total water volume of the pool, and
- (d) in the case of a wave action pool, six times the total water volume of the pool.
- (6) A recirculation system shall be equipped with a flow meter registering the rate of water flow.
- (7) All pools shall be provided with automatic make-up water devices and provided with water meters to register the volume of all make-up water added to a public pool or its recirculation system.
- (8) Equipment shall be installed to continuously disinfect the water in a public pool by means of
- (a) a chlorination or hypochlorination system provided with a chemical controller for regulating the dosage of chlorine and capable of providing not less than
- (i) in the case of an outdoor pool, other than a wave action pool, 300 g of chlorine per day per 10 000 L of total pool capacity,
- (ii) in the case of an indoor pool, other than a wave action pool, 200 g of chlorine per day per 10 000 L of total pool capacity,
- (iii) in the case of an outdoor wave action pool, 1 200 g of chlorine per day per 10 000 L of total pool capacity, and
- (iv) in the case of an indoor wave action pool, 800 g of chlorine per day per 10 000 L of total pool capacity, or
- (b) a bromination system capable of maintaining in the pool water a total bromine residual of 3 mg/L.
- (9) Gas chlorination equipment for a public pool shall contain a mechanism whereby the chlorine feed shall automatically terminate whenever the recirculation system ceases to supply clean water to the pool.
- (10) All exposed potable water piping and chlorine piping within a public pool water treatment service room shall be colour coded by means of
- (a) painting the entire outer surface of the piping, or
- (b) coloured bands at least 25 mm in width that are spaced along the piping at intervals of not more than 1 200 mm.
- (11) The colour coding referred to in Sentence (10) shall be yellow for chlorine and green for potable water.
- (12) Except for a modified pool and wave action pool, a public pool shall be equipped with overflow gutters or surface skimmers connected to the recirculation system that are capable of removing surface film from the surface of the water and withdrawing

each day and discharging to the waste drains up to 15% of the total volume of pool water.

(13) A public pool shall be equipped with clean water inlets arranged in conjunction with surface

skimmers or overflow gutters to provide uniform distribution and circulation of clean water.

(14) Except as permitted in Sentence (19), all fittings at or below the water surface that allow water and/or air to be passed to or from the public pool shall

(a) have a maximum opening of 7 mm in one direction, and

(b) be securely held in place by corrosion resistance fastening that require a tool for removal and are galvanically compatible with the fittings and grilles or covers.

(15) Except as provided in Sentence 3.11.6.1.(7) for a modified pool, all fittings below the water surface that provide suction or gravity flow in a public pool shall

(a) be provided with a minimum of two suction or gravity outlets interconnected to a full size manifold, and

(b) be separated by a clear distance of not less than 1 200 mm.

(16) Except as provided in Sentence 3.11.6.1.(7) for a modified pool, water in all public pools shall be capable of being emptied through the pool drains in twelve hours or less.

(17) Except as provided in Sentence 3.11.6.1.(7) for a modified pool, openings in suction or gravity fittings shall

(a) be such that the flow of water does not exceed 0.45 m/s and the velocity is calculated assuming all possible sources of suction flow are present at one time, and

(b) be such that every suction fitting located within 1 000 mm of the water surface, except for skimmers and gutter fittings, contain openings with a minimum aggregate area of 0.2 m².

(18) Except for skimmers and gutters, all submerged suction and gravity fittings shall be clearly and permanently marked with a 50 mm wide band in a contrasting colour.

(19) Fittings returning water and/or air to the pool tank that are located within 300 mm of the water surface are permitted to have openings with one dimension more than 7 mm but shall contain no openings more than 25 mm in diameter.

(20) Submerged skimmer equalizer fittings and vacuum fittings are not permitted in public pools.

3.11.9. Dressing Rooms, Locker Facilities, and Plumbing Facilities for all Public Pools

3.11.9.1. Dressing Rooms and Sanitary Facilities

(1) Except as otherwise permitted in Sentences (2) and (3), every public pool shall be equipped with dressing rooms, locker rooms, shower heads, water closets, urinals, lavatories and drinking fountains which shall be designed, constructed and equipped to comply with Sentences (4) to (14).

(2) Where a Class A pool is installed on the premises of a recreational camp, dressing rooms, locker rooms, shower heads, water closets, urinals, lavatories and drinking fountains are not required if

(a) dressing, water closet and shower facilities are conveniently available for bathers elsewhere on the premises, and

(b) foot sprays are provided in accordance with Sentence 3.11.3.1.(17).

- (3) Where a Class B pool is installed, dressing rooms, locker rooms, shower heads, lavatories, water closets, drinking fountains and urinals are not required if
- (a) dressing, water closet and shower facilities are conveniently available elsewhere on the premises for bathers when the pool is open for use, and
 - (b) foot sprays are provided in accordance with Sentence 3.11.3.1.(17).
- (4) The minimum number of water closets, urinals and lavatories shall be determined from Article 3.7.4.3. and Table 3.7.4.3.C. for an occupant load based on
- (a) the formula in Sentence 3.1.16.3.(1) for all public pools, except a wave action pool, or
 - (b) the formula in Sentence 3.1.16.3.(2) for a wave action pool.
- (5) A minimum of one shower head shall be provided for every 40 bathers.
- (6) Where dressing and locker rooms, water closets and urinals are provided in conjunction with a public pool, they shall be located in such a manner that bathers, after using them, shall pass through or by a shower area to reach the pool deck.
- (7) All shower heads shall be supplied with potable water at a pressure of at least 140 kPa.
- (8) The shower water system shall have one or more tempering devices capable of being adjusted to ensure that water supplied to shower heads does not exceed 40°C.
- (9) Floors in washrooms, shower areas and passageways used by bathers shall slope to waste drains at not less than 1% and shall be of hard surfaced materials that do not become slippery when wet.
- (10) Joints between floors and walls shall be coved in areas described in Sentence (9) and in dressing and locker rooms.
- (11) Hose bibs shall be provided in safe locations convenient for flushing down the walls and floors in washrooms, shower areas and passageways used by bathers.
- (12) Partitions or walls shall be provided to ensure privacy of dressing rooms, washrooms and shower areas.
- (13) The bottom of interior partitions in dressing rooms and washrooms shall be between 250 mm and 350 mm above the floor.
- (14) Dressing and locker room floors shall have non-slip surfaces that permit convenient and thorough cleaning and disinfecting.
- 3.11.10. Emergency Provisions for All Public Pools
- 3.11.10.1. Lighting and Emergency Provisions
- (1) Except as provided in Sentences (2) and (3), rooms and spaces used by the public in conjunction with a public pool shall be capable of illumination to levels in compliance with Subsection 3.2.7.
- (2) Dressing rooms, locker rooms, shower rooms, washrooms and passageways shall have an illumination level of at least 200 lx at floor level.
- (3) An indoor pool or an outdoor pool that is intended to be open for use after sundown shall be equipped with a lighting system
- (a) that will maintain at any point on the pool deck and on the pool water surface an illumination level of at least,
 - (i) 200 lx in the case of an indoor pool, and
 - (ii) 100 lx in the case of an outdoor pool, and

(b) that makes the underwater areas of the pool clearly visible from any point on the pool deck.

(4) An outdoor pool that is intended to be open for use after sundown and an indoor pool shall be equipped with an independent emergency lighting system that automatically operates whenever the normal electrical power supply to a public pool lighting system fails.

(5) The independent emergency lighting system required in Sentence (4) shall be capable of illuminating the pool deck, washroom, shower, locker areas, pool water surface and all means of egress to a level of at least 10 lx.

(6) An emergency power supply for the emergency lighting system required in Sentence (4) shall comply with Sentences 3.2.7.4.(1) and 3.2.7.7.(1) and Article 3.2.7.5.

(7) An emergency telephone directly connected to an emergency service or to the local telephone utility shall be installed adjacent to the pool deck of every Class A pool.

(8) A telephone accessible for emergency use shall be installed for every Class B pool within 30 m of the pool.

(9) Every wave action pool shall have a public address system which shall be clearly audible in all portions of the pool.

(10) Every wave action pool shall have a communication system for the use of persons engaged in supervision or operation of the pool which shall be interconnected with each lifeguard control station, the first-aid room and the bather admission control centre.

(11) The public address system and the communication system described in Sentences (9) and (10) shall be interconnected.

(12) All recirculating pumps used in a public pool shall be capable of being deactivated by an emergency stop button clearly labelled and located at

(a) a Class A pool beside the telephone that is required in Sentence (7), and

(b) a Class B pool on the deck area.

(13) The emergency stop button in Sentence (12) shall when used activate an audible and a visual signal located by the emergency stop.

(14) An emergency sign containing the words IN THE EVENT OF AN EMERGENCY PUSH

EMERGENCY STOP BUTTON AND USE EMERGENCY PHONE, AUDIBLE AND VISUAL SIGNAL

WILL ACTIVATE shall be in letters at least 25 mm high with a 5 mm stroke and posted above the emergency stop button.

3.11.11. Service Rooms and Storage for all Public Pools

3.11.11.1. Service Rooms and Storage Facilities

(1) In addition to the requirements of this Subsection, service rooms shall comply with the requirements of Sentences 3.6.2.1.(4), 3.6.2.1.(5) and 3.6.2.2.(5) and Articles 3.5.3.3. and 3.6.2.3.

(2) Where compressed chlorine gas is used as a pool water disinfectant, the cylinders or containers of gas shall be located in a service room that

(a) except as provided in Sentences 3.1.9.4.(3) to (8), is separated from the remainder of the building by a 1 h fire separation that is substantially gas tight,

- (b) is designed for the sole purpose of containing all installed pressurized chlorine gas apparatus and piping and storing all chlorine gas containers or chlorine gas cylinders that are individually secured against toppling,
 - (c) is located at or above ground level,
 - (d) is provided with an exit door opening to the outdoors,
 - (e) has screened openings to the outdoors with at least one opening located within 150 mm from the floor and at least one opening located within 150 mm from the ceiling, each opening being 2% of the area of the floor,
 - (f) is equipped with emergency mechanical ventilation capable of producing at least 30 air changes per hour, taking suction at a maximum of 900 mm above the floor level and discharging at least 2 500 mm above ground level directly to the outdoors, and
 - (g) contains a platform weigh scale of at least 135 kg capacity for each chlorine cylinder in use.
- (3) Storage facilities shall be provided for the safe storage of all chemicals required in pool operations.
- (4) The storage facilities shall be ventilated and shall be equipped with a water hose connection and a floor drain.
- (5) Service rooms and storage facilities, including rooms and facilities that contain electrical or mechanical equipment or chemicals or chemical feeders, shall be equipped with a secure locking device.

3.12.3. Ramps and Access into Public Spas

3.12.3.1. Ramps into Public Spas

- (1) Not more than 50% of the total perimeter of a public spa may be replaced by one or more ramps that permit a bather seated in a wheelchair to enter the water with or without the wheelchair.**
- (2) If a public spa has one or more ramps described in Sentence (1), the public spa shall comply with Article 3.11.5.1. and Sentences 3.11.5.2.(3) and (4).**

3.12.3.2. Access into Public Spas

- (1) Where more than one public spa is provided within a suite located on a storey that is required by Article 3.8.2.1. to have a barrier-free path of travel, a barrier-free access described in Sentence (2) shall be provided to at least one public spa.**
- (2) Barrier-free access for entry into and egress from a public spa shall be provided by,**
 - (a) a ramp conforming to Article 3.12.3.1.,**
 - (b) a pool lift conforming to the manufacturer's specifications and installation instructions and conforming to Sentences 3.11.3.3.(2) to (6), or**
 - (c) a transfer wall conforming to Sentences (3) to (5).**
- (3) A transfer wall providing barrier-free access for entry into and egress from a public spa shall,**
 - (a) have a height not less than 405 mm and not more than 485 mm measured from the pool deck,**
 - (b) have a depth of at least 300 mm and not more than 400 mm,**
 - (c) be slip-resistant and have edges that are rounded, and**

- (d) have at least one grab bar that,
 - (i) is perpendicular to the pool and extends the full depth of the transfer wall,
 - (ii) is located not less than 100 mm and not more than 150 mm above the transfer wall,
 - (iii) has a clearance of at least 610 mm on both sides,
 - (iv) complies with Clauses 3.8.3.8.(7)(a) and (b), and
 - (v) is made of a slip-resistant material.
- (4) The deck area required to make a lateral transfer to the transfer wall shall,
 - (a) be outside and adjacent to the barrier-free path of travel described in Sentence (1),
 - (b) have no obstructions at the side of the transfer wall serving the transfer space,
 - (c) have a clear space of 900 mm by 2 200 mm, and
 - (d) have a slope less than 2% provided at the base of the transfer wall surface.
- (5) The deck area described in Clause (4)(c) shall be centred on,
 - (a) the grab bar where one grab bar is provided, or
 - (b) the clear space between the grab bars where more than one grab bar is provided.

The proper design and subsequent construction of a swimming pool, spa, water feature or fountain is a complex process.

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