

# Section 4: Pool Surroundings and Decking

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**Rationale:**

There are a variety of types of pools including indoor and outdoor facilities, which offer a variety of types of services and features. All shall be maintained and cleaned in a sanitary manner, and be included in the cleaning and preventative maintenance plan within the Aquatic Safety Plan. Pre-opening inspections shall be carried out each day prior to opening and all records shall be maintained.

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## 4.1 Sauna and Steam Room Maximum Temperature

**Recommendation:** (when applicable)

- Shall be operated and maintained as designed

## 4.2 Deck Maintenance

**Recommendations:**

- At a minimum, decking shall be cleaned daily and kept free of debris, vermin, and vermin living environments.
- Decking shall be maintained to the original design slope and surface integrity.
- Decking shall be free of standing water.
- Drains shall be cleaned and maintained to prevent blockage and pooling of stagnant water.
- Absorbent materials used in wet areas must be able to be removed for cleaning and disinfection.
- Fixed equipment, loose equipment, and deck furniture shall not interfere with the circulation system or emergency exit procedures. See also Appendix 6, Hard Surface Incident Response Recommendations.

## 4.3 Hose Bibs

**Recommendations:**

- Sufficient numbers of hose connections shall be provided to allow cleaning throughout the pool area and be maintained within the dressing rooms and pool walkways at convenient locations to allow for adequate cleaning and flushing of floors and walkways.
- Hose bibs shall also be equipped with a Canadian Standards Association or equivalent atmospheric vacuum breaker.

## 4.4 Benches or Seats

**Recommendations:** (when applicable)

- A spectator area and the access to it shall not interfere with emergency evacuation procedures and shall be separated from the remainder of the deck by a barrier placed not less than 1.2 meters (or as designed) from the edge of the pool.<sup>40</sup>
- Benches and seats are stored outside the deck area when not in use.



## 4.5 Wall Clocks

**Recommendation:**

- A completely functional clock(s) shall be clearly visible from a pool, whirlpool, sauna, or steam room to assist bathers in determining their length of stay.



<sup>40</sup>U.S. Department of Health and Human Services, Centers for Disease Control and Prevention 2014, The Model Aquatic Health Code

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## 4.6 Water Fountains

### Rationale:

Encouraging the use of water fountains will help discourage patrons from consuming pool water.

### Recommendations:

- Poolside water fountains shall be maintained and accessible for patrons use.
- Shall be cleaned and maintained in a sanitary manner.

## 4.7 Rinse Showers

### Rationale:

A rinse shower is typically located in the pool deck area (often associated with outdoor aquatic venues) with ambient temperature water. The main purpose is to remove dirt, sand, or organic material prior to entering the aquatic venue. It is not meant to replace wash showers and may not be necessary at all aquatic facilities.

### Recommendations:

- At least one rinse shower shall be provided where design requires.
- The floor shall be sloped to drain waste water away from the aquatic venue.

## 4.8 Barrier (accessibility) and Alarms

### Rationale:

To prevent and reduce the risk of drowning, near-drowning, and other preventable injuries. Fencing, lockable doors, or doors with alarms and gates are necessary to ensure that people do not gain unsupervised access to a pool.

### Recommendations:

An owner or operator shall ensure that during periods when the pool is not intended to be open for use, or if it is an unsupervised facility, the facility is made inaccessible to persons who are not involved with its operation or maintenance. Ensure the following:

- The surrounding perimeter barrier (fencing) shall be maintained at all times so that the pool area can only be entered through the intended entrance gate/door.
- All gates (entrances) shall be maintained at all times and shall be self-closing, self-latching, and lockable, with the self-latching device located 5 feet above the ground.
- Indoor pools may choose to use an alarm system on the doors that lead from the change room to the pool deck.
- Gates (doors), locks, and/or alarms (if required) shall be tested every day prior to opening and after closing, and the results recorded.

## 4.9 Emergency Exits

### Recommendations:

Emergency exits shall be established for both indoor and outdoor facilities, and will be maintained, indicated by signage, well-lit, unobstructed, and accessible at all times.

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## 4.10 First Aid Stations

### Recommendations:

A designated area or room designed for the delivery of first aid shall be present in the aquatic facility. It is necessary to ensure that this room

- is clearly indicated by signage, accessible, and appropriately stocked and maintained for potential emergency situations (as identified in the Aquatic Safety Plan)
- is equipped with functioning emergency communication equipment (phone to dial 911 or a designated person) and posted procedures including emergency personnel contact information and contact information for the manager (See also Section 8.1.1.1, Emergency telephone and warning signals).



## 4.11 Emergency Telephone and Signage

### Recommendations:

An emergency telephone shall be provided, clearly identified, and shall be:

- located in the pool area in a location that is easily accessible by both patrons and staff
- tested prior to opening every day and results recorded in the daily pre-opening inspection

### 4.11.1 Additional 911 recommendations:

- The facility shall have a clearly posted civic number.  
(See also Section 4.10, First Aid Stations, Section 8.1.1.1, Emergency Telephone and Warning Signals)

## 4.12 Emergency Stop Buttons

### Rationale:

Emergency stop buttons can be an effective lifesaving tool when utilized e.g., with hot tubs, movable floors and special pool play features. In the case of an emergency, such as a suction entrapment, the circulation system (pumps) can be halted immediately via a stop button to break the suction.

### Recommendation:

- Emergency stop buttons shall be maintained and tested, and results recorded as required in the operational manual and Aquatic Safety Plan. (See also Section 7.3, Preventing Suction Hazards in Pools and Spas.)

## 4.13 Lighting

### Rationale:

Lighting (emergency lighting, underwater lighting, overhead lighting, outdoor pole-mounted lights, public areas, hallways, and natural lighting) is required for effective maintenance, cleaning, monitoring, safe facility use including lifeguarding, and security. Ensuring proper lighting levels are maintained and reach all areas of the aquatic facility is part of pool design and a preventative maintenance plan.

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Lighting effectiveness is reduced by many factors including, but not limited to

- lamp placement
- lifespan of lamp bulbs
- surface deterioration and damage
- dirt accumulation

## **Recommendations:**

- Whenever possible lighting should be designed to be indirect to prevent glare at the pool surface.
- Every indoor swimming pool shall ensure a minimum light intensity of 200 lux (15 foot candles) measured 30 inches above the water surface, deck, and in areas of the change rooms used by bathers during all operation and maintenance hours.<sup>41</sup>
- Lamp and light level intensities shall be included in the Preventative Maintenance Plan and cleaning and inspection protocol.
- The pool is closed immediately if light levels fall below 200 lux. See also Section 6.4, Water Clarity (Turbidity).

### **4.13.1 Emergency lighting**

- Emergency lighting shall be tested and maintained according to manufacturer's instructions.

### **4.13.2 Underwater lighting (when used)<sup>42</sup>**

- Underwater lighting shall be operational and maintained as designed.
- Lenses that are cracked but physically intact shall be replaced before the pool reopens to bathers.
- Lenses that are cracked and not intact require immediate closure of the pool and shall be replaced before the pool can be re-opened. (See also Section 4.14, Ground Fault Interrupter (GFCI) and De-energizer.)

### **4.14 Ground Fault Interrupter (GFCI) and De-energizer<sup>43</sup>**

#### **Rationale:**

To prevent accidental electrocutions all electrical outlets and fixtures are to be designed, installed, and maintained in accordance with municipal and provincial electrical codes.

#### **Recommendations:**

If a pool has underwater lighting or any electrical outlets and fixtures within 3 metres (10 feet) of the pool surface, a ground current leakage detecting and de-energizing device (GFCI; a device that automatically shuts off the associated circuit if there is an electrical leak that could cause an accidental shock) shall be present.

- Required GFCI devices shall be tested monthly according to the manufacturer's instructions as part of scheduled maintenance.
- Daily testing of buttons before the pool opens to ensure the device is activated shall be done, with records of all testing maintained.
- The pool shall be closed if a GFCI is not working. Circuits for underwater lighting that do not have a GFCI shall be physically severed (cut).

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<sup>41</sup> Illuminating Engineering Society, IESNA RP 6.01 - Sports and Recreational Area Lighting, (2001).

<sup>42</sup> The USA Centre for Disease and Prevention. (2014) Model Aquatic Health Code-First Edition The Code

<sup>43</sup> Adapted with permission from Toronto Public Health, Swimming Pool Operations Manual (2009).

Retrieved from the www at [http://www.toronto.ca/health/hphe/pdf/swimming\\_pool\\_m2009.pdf](http://www.toronto.ca/health/hphe/pdf/swimming_pool_m2009.pdf)

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## 4.15 Pool Basin

### Rationale:

The ability to see the sides and bottom of a pool basin by patrons and operators is an important safety and operational component. Diving or falling into shallow water or not having the ability to judge water depth due to a lack of water depth markings, or the inability for the patron to judge water depth due to a darker pool basin finish can result in basin collision that can lead to spinal, head, brain, or other traumatic injury and may result in death. Maintaining clear depth markings, pool water clarity, and the ability to distinguish features, such as stairs and depth, may help increase patrons' awareness of these dangers. Furthermore, darker pool basin colours interfere with the operator's ability to determine algae growth on the pool basin.

### 4.15.1 Colour and care

#### Recommendations:

- White is preferred or be light in colour, except for markings related to safety and competition.
- Underwater step treads shall be marked in contrasting colour to indicate location.
- The venue shall be clean, and free of scum line, algae, and biofilm.
- The venue shall be inspected annually for cracks, surface deterioration, equipment cracks, rust, and deterioration and repaired as required. A structural engineer shall evaluate any crack<sup>44</sup>
  - with vertical displacement of varying width concentrated to a specific area
  - exposing any reinforcement
  - which is an obvious recurrence from previous patches
  - in a corner
  - drawing a defined line
  - on the surface over 1/8 inch (3.2 mm) in width (See also Section 6.4, Water Clarity (Turbidity))

### 4.15.2 Depth Markings

#### Recommendations:

Depth markers shall <sup>45</sup>

- be visible by swimmers in the pool
- indicate the depth of water in metric or imperial units of measurement
- be located above the water surface on the pool wall and on the walkway at the pool edge, or, for deck level pools, overhead or on another structure as long as the markers are in full view from all locations in the pool and at the pool edge
- be located at maximum and minimum depth, at 30 centimetres (1 foot) increments between the shallow depth and the point of break, and at intervals no more than 7.62 metres (25 feet) measured peripherally at other intermediate points
- be in Arabic numerals at least 10 centimetres (4 inches) in height
- be a colour that contrasts with the background



<sup>44</sup> <http://www.cdc.gov/healthywater/pdf/swimming/pools/mahc/mahc-complete-draft-CODE-for-2nd-round-of-comments.pdf> 206

<sup>45</sup> British Columbia Ministry of Health, Health Protection Branch Population Health and Wellness Division, B.C. Guidelines for Swimming Pool Design V1.0, 2011

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## 4.15.3 Lane Markings

- Lane markings shall be marked in contrasting colour to the pool basin to indicate location.

## 4.15.4 Movable floor

### Recommendations:

- No one shall be allowed to swim beneath a bulk head if it is operated with an open area underneath.
- Circulation system must be able to effectively distribute disinfection to areas below moveable floors.
- A sign indicating movable floor and/or varied water depth shall be provided and clearly visible from the deck.
- The floor shall be equipped with emergency stop features.



## 4.15.5 Pool vacuuming

### Recommendations:

- Vacuuming shall be done when the pool is closed.
- Vacuum port openings shall be covered with an approved device cover when not in use.
- Pools with missing or damaged vacuum port openings shall be closed and repairs made before re-opening.
- All accessible surfaces shall be scrubbed and cleaned as necessary to minimize the formation of slime and biofilm layers. (See also Section 7.3, Preventing Suction Hazards in Pools and Spas.)

## 4.16 Starting Platforms/Blocks

### Recommendations: (when applicable)

- Starting blocks shall only be used for swimmer training or competitive swimming activities.
- When starting blocks are permanently attached to the pool deck, covers, cones or signage shall be used to inform closure and to deter access.
- Starting blocks designed to be removed shall be removed at all times when use is prohibited.

## 4.17 Pool Steps and Guardrails

### Recommendations:

- Steps and guardrails shall be secure and unable to move during use.
- Steps and guardrails shall be maintained to prevent slips and falls (see also Section 5.1.2, Diving Boards and Platforms).
- Underwater step treads shall be marked in contrasting colour to indicate location.



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## 4.18 Lifts and Hoists<sup>46</sup>

### Rationale:

As noted in the introduction providing accessible aquatic experience is a plus for all communities and individuals. Safe and well-maintained lifts, hoists and pools with zero entry points allow the needed access to those in the community with mobility impairments.

### Recommendations: (when applicable)

- All lifts and hoists for people with mobility impairments shall be removed when not in use, or designed in such a way that they do not project into the pool and pose a hazard to swimmers.
- All supporting features must be approved by a reputable health and safety certifying agency.



## 4.19 Designated Food Area Handling and Consumption Areas

### Recommendations: (when applicable)

- Any food handling areas shall meet the Nova Scotia Department of Agriculture Food Safety Regulations.
- Consumption of food is not allowed in or partially in the water at aquatic facilities.
- No food and beverage containers or tables made of glass are allowed in areas of aquatic facilities used by patrons and bathers.

<sup>46</sup>British Columbia Ministry of Health, Health Protection Branch Population Health and Wellness Division, B.C. Guidelines for Swimming Pool Design V1.0, 2011