Ministry of Health

# Recreational Water Reference Document, 2025

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### Version 2 – Significant updates

Page #	Description
9	Provided clarification on corporations being designated as an operator
11	Added guidance regarding pool liner colour
12	Added guidance regarding bather attire
Page 16 & Appendix A	Added guidance regarding the wading pool supervision exception
22	Updated water chemistry parameters
22	Added guidance regarding multiple pools on one recirculation system
25	Added additional information on Oxidation Reduction Potential (ORP)
26	Added guidance on manual pool test kits
30	Provided clarification on buoy line requirements in Class B pools where the slope is 8% or greater
Page 34 & Appendix C	Added guidance for floatation tanks

### Preamble

Reference Documents are program or topic-specific documents that provide information and best practices relevant to implementing the Ontario Public Health Standards: Requirements for Programs, Services, and Accountability (Standards), Protocols and Guidelines.<sup>1</sup> Reference Documents are not enforceable; the aim of Reference Documents is to provide professional staff employed by local boards of health support in operationalizing and implementing requirements outlined in the Standards, Protocols and Guidelines.

## Disclaimer

This reference document provides basic information only and is not complete or exact reproductions of the applicable legislation or regulation. It is not intended to provide legal advice. In the event of any conflict between this reference document and any legislation or regulation, the legislation or regulation shall prevail. Independent legal or professional advice should be obtained when determining the interpretation and application of any legislation or regulations. The Ontario Ministry of Health is not responsible for decisions made as a result of reliance on this document.

## Introduction

*Ontario Regulation 565 - Public Pools* (Reg. 565 (Public Pools)) under the *Health Protection and Promotion Act R.S.O 1990* (HPPA) was updated to include regulatory requirements for public pools, including novel pool types such as cold plunge pools and floatation pools, public spas and Class C facilities (wading pools, spray pads, splash pads, water slide receiving basins, and floatation tanks).<sup>2,3</sup>

The Recreational Water Reference Document (RW-RD) represents generally accepted practices for the safe operation of a public recreational water facility and includes summary information about Reg. 565 (Public Pools).

The regulatory requirements are outlined and shaded to provide clarity on how they are stated in Reg. 565 (Public Pools).

Next to the headings, there is a legend with a " $\checkmark$ " (yes) or "\*" (no) indicating which facility the topic applies to.

The facilities are categorized as:

- A (Class A public pools)
- B (Class B public pools)
- C (Class C facilities)
- S (public spas).

Appendices A, B, and C contain a summary of all regulatory requirements for Class C facilities.

The RW-RD does not provide all of the regulatory requirements; it is designed as an educational resource to assist with compliance to Reg. 565 (Public Pools). It should be used in conjunction with companion resource materials that together inform best practices in recreational water safety.

### Purpose

The RW-RD is intended to assist recreational water facility owners and operators and public health inspectors (PHIs) to reduce the risk of recreational water users acquiring recreational water illnesses or injuries, promote compliance with Reg. 565 (Public Pools) and promote best practices related to recreational water operations.

The RW-RD promotes safe recreational water operations by:

- Encouraging communications and positive relationships between recreational water facility owners, operators and PHIs; and
- Identifying operational procedures that reduce the risk of recreational water injury and users acquiring illness.

PHIs are trained to provide education and practical advice with regard to recreational water. Throughout this document, recreational water operators are encouraged to consult with PHIs to work together toward shared safe recreational water outcomes.

### **Relevant Legislation**

The Ministry of Health (ministry) establishes provincial priorities including the Standards for public health programs and services delivered through local boards of health. Boards of Health are the delivery agencies for local public health programs and services. Through the application of legislation, boards of health across Ontario ensure recreational water facilities such as public pools, spas, cold plunge pools, floatation pools, floatation tanks, spray and splash pads, wading pools, and water slide receiving basins are safe for bathers and users.

PHIs are responsible for monitoring and ensuring compliance with Reg. 565 (Public Pools) and the HPPA. Operators are responsible for ensuring they are in compliance with relevant legislation and should speak with their local <u>board of health</u> for more information.

The requirements for public pools are outlined in the following legislation:

- *Health Protection and Promotion Act*: Legislation that governs safe water in premises which include recreational water facilities.
- **Ontario Regulation 565 Public Pools:** Reg. 565 (Public Pools) is a regulation under the HPPA that has specific requirements for recreational water facilities and is enforced by PHIs in Ontario.
- Provincial Offences Act (POA): Provides authority in a regulation (Regulation 950) for provincial offence notices (tickets) for infractions under Reg. 565 (Public Pools), which came into effect July 1st, 2018.<sup>4</sup> The POA Regulation 950, Schedule 39, includes short form wording and set fine amounts based on the severity of the infraction. For more information on POA tickets, refer to the <u>Guide for Defendants in Provincial Offences Cases</u>.<sup>5</sup>
- Ontario Public Health Standards: Requirements for Programs, Services, and Accountability (Standards), and the Safe Water Standard: Section 7 of the HPPA provides that the Minister of Health and Long-term Care may publish Ontario Public Health Standards for the provision of mandatory programs and services that local boards of health shall comply with.
- Recreational Water Protocol, 2019 (or as current) and Operational Approaches for Recreational Water Guideline, 2019 (or as current): These documents are enforceable under the Standards and outline specific requirements for delivering the recreational water safety program by a local board of health.<sup>6,7</sup> For example, boards of health are responsible under the protocol to maintain surveillance data of public recreational water facilities, ensure availability of education and training materials, and for the timely investigation of water-borne illness or outbreaks.

## **Recreational Water Overview**

### Public health and safety

Recreational water facilities offer a wide range of health benefits including exercise, opportunities to socialize, and help people keep cool on hot summer days. However, if not operated properly they can also cause injury and/or illness. Reg. 565 (Public Pools) streamlines the regulated recreational water facilities into one regulation to provide consistency in health and safety standards.

Recreational water settings can be a host of bacteria, parasites, protozoa, and viruses that can cause enteric illnesses (illness in the stomach and intestines) as well as skin and ear infections. Adequate disinfection of water is one of the most important factors to help reduce risk of illness. Most disinfection equipment and procedures aim to reduce bacteria in the water, where free available chlorine or total bromine treatment is adequate. However, protozoa and parasites may require further treatment, like UV radiation to be completely deactivated. Without adequate treatment of the recirculated water stream, parasites such as Giardia and Cryptosporidium can present a hazard.

In addition to enteric illness, recreational water facilities can present a risk of drowning. Children have a higher susceptibility to swimming injuries, non-fatal and fatal drowning events in swimming pools. Other health risks associated with recreational water facilities include suction drain injuries, chemical injuries resulting in respiratory, skin, eye and ear conditions as well as injuries related to slipping and falling on wet surfaces.

## Operation

When an owner or operator plans to open a recreational water facility regulated under Reg. 565 (Public Pools), it is important to initiate communication with the local board of health and local building and by-law departments early on in the planning phase. Early communication will ensure appropriate time is provided to:

- review the building design;
- identify any other applicable legislation including by-laws;
- discuss appropriate operational plans (i.e. swim tests); and
- ensure adequate operator training and education (i.e. training materials provided, or training course is taken), to assist in compliance with the regulation and ultimately the safe operation of a recreational water facility.

Prior to construction or alterations, owners or operators should contact the local building and municipal by-law departments, the <u>Electrical Safety Authority</u> and/or <u>Technical Standards</u> <u>and Safety Authority</u> as applicable.

### Notification



All operators of public pools, spas, and Class C facilities shall notify the local medical officer of health (MOH) or PHI of commencement of operation, a minimum of 14 days prior to (re)opening to allow time for inspection. This includes when the facility is reopening after being closed for more than four weeks, closed for construction, or is a new facility.

A letter, phone call, or online program (if available) may be acceptable processes for communication with the local board of health. Operators should speak to the PHI for more information on their process for notification. Refer to section 5 under Reg. 565 (Public Pool) for more information.

### **Permission in writing**



Requirement 5. (2) A person who proposes to open or re-open a pool or spa for use as a public pool or public spa after construction or alteration shall not open or re-open the pool or spa without first obtaining permission in writing from the medical officer of health or a public health inspector for the health unit where the pool or spa is situate.

Following construction or alteration, permission in writing from the local MOH or PHI is required for all facilities under Reg. 565 (Public Pools) prior to operating. Operators are encouraged to notify the local board of health prior to construction or alteration of a facility to ensure regulatory compliance will not be affected by the planned modifications. Operators should also contact the local board of health for more information on policies and processes regarding notification and written permission.

Please note that if a facility has been closed for more than four weeks and has not had any construction or alteration, written permission from the board of health is not required to open, however under the *Recreational Water Protocol, 2019* (or as current), upon notification, boards of health are to conduct an inspection prior to opening after construction, alteration or closure of more than 4 weeks to determine compliance with the regulation. Early communication with the board of health for their notification and written permission policies is important to ensure a timely opening, whether after construction, alteration, or a seasonal closure.

### Posting of inspection results



Requirement 5. (4) Every operator of a public pool or public spa shall ensure that the results of any inspections conducted by a public health inspector are posted in accordance with the inspector's request.

This requirement provides information to the public that inspection results are available and how they can be accessed. Public disclosure of inspection results increases public transparency and allows the public to make informed decisions. The specifics of what operators are required to post on-site are provided by the PHI and based on direction from the board of health. All boards of health are also required under the *Recreational Water Protocol, 2019* (or as current) to post inspection results of various regulated settings on their website.

#### **Designated operator**

Requirement 6. (1) Every owner of a public pool or public spa shall designate an operator.

The operator is a designated person who oversees the safe operation of the public pool, spa, or Class C facility. An operator will typically be a manager or someone who has care and custody of the recreational water facility during operation. More than one person may be designated as an operator of a facility. If an operator is not available on-site during an inspection, they should be easily accessible by an on-site employee or attendant. A corporation may be designated as an operator; however, there will need to be a specific person designated to complete the required operator tasks.

#### **Rendered inaccessible**

Requirement 6. (3) (b) Every owner and every operator shall ensure that except during the daily use period, the pool or spa is rendered inaccessible to persons who are not involved with its operation, inspection or maintenance.

Operators of public pools, public spas and wading pools must ensure that the facility is not

accessible to the public outside of operating hours. This may be achieved through the locking or gating of the facility to prevent public access, or by draining the water.

### **Operator training**



Requirement 6 (2) Every operator shall be trained in public pool and public spa operation and maintenance, filtration systems, water chemistry and all relevant safety and emergency procedures.

All operators of public pools and spas must be trained in the safe operation of the facility. Operators should consult their PHI as to how this requirement can be met. Existing training courses and resources available through many boards of health and sector providers may be used to meet this requirement.

As per the *Recreational Water Protocol, 2019* (or as current), boards of health are required to ensure training materials are available and to promote recreational water facility training to owners and operators. Training should include information on:

- 1. Public health legislation and regulations, as applicable;
- 2. Prevention of illness, injury or death;
- 3. Pool water chemistry;
- 4. Sanitary operation of other amenities in the facility;
- 5. Provision of safety equipment;
- 6. Emergency communication and procedures;
- 7. Safety supervision;
- 8. Admission Standards, as applicable; and
- 9. Record keeping.

PHIs may request additional training for operators if multiple infractions under Reg. 565 (Public Pools) are observed or if an operator cannot demonstrate the safe operation of the facility.

### Operating as a Class A pool



Requirement 6 (4) Despite paragraph 2 of section 2, a Class B pool may be operated as a Class A pool during periods when the pool is open solely for the uses stated in paragraph 1 of section 2 if the following conditions are met:

- 1. The medical officer of health or a public health inspector for the health unit where the pool is situate has been notified in advance of the intent to operate as a Class A pool.
- 2. All safety and supervision requirements in section 17 and subsections 20 (4) to (8) comply with those of a Class A pool.
- 3. The pool is able to increase rate of water turnover provided for in clause (3) (c) to that of a Class A pool.

Under certain conditions, a Class B pool can operate as a Class A supervised pool for short periods of time, such as for a special event or occasion.

A Class B pool may operate as a Class A pool if the operator can demonstrate to the PHI that they will comply with the regulatory requirements outlined in section 6 (4) of Reg. 565 (Public Pools) for the uses stated in paragraph 1 of section 2. Requirements include the use of lifeguards and admission standards. Operators must notify the board of health of their intent to operate as a Class A pool.

### Pool liner colour



Requirement 6. (6) (h) in the case of a pool, the submerged surfaces are white or light in colour, except for markings for safety or competition purposes.

Pools are required to have submerged surfaces be white or light in colour for safety purposes. Darker pool basins make it more difficult for a bather to judge water depth, which can lead to bather injury. Darker basins may also make it harder to see cracks in the pool surface, dirt, debris, and algal growth.

The US CDC's Model Aquatic Health Code outlines that light, pastel-coloured submerged surfaces should be consistent with Munsell colour value 6.5 or higher<sup>8</sup>.

#### **Bather attire**



"Bather" is defined as "a person dressed for bathing"

Bathers are to be properly attired for swimming in clean garments that will not pose a drowning hazard (e.g., fabrics that absorb water and reduce buoyancy, loose flowing fabric that could restrict movement and/or cause entrapment). If bathers chose to bathe in attire not originally intended for bathing purposes, they should be clean and showered, with their attire donned, before entering or re-entering the deck, as outlined in the sign required in Section 19, paragraph 5.

#### With necessary modification

### A×B×C√S×

The term "with necessary modification" in the regulatory requirement applies to a Class C facility [see section 26.1 of Reg. 565 (Public Pools)]. This term does not provide any authority for an operator, MOH, or PHI to modify any specific details of, or grant an exemption from, a regulatory requirement.

Example of necessary modification:

Requirement 26.1 (1) The following provisions of this Regulation apply, with necessary modification, to every owner and every operator of a Class C facility:

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1. Section 5, other than clause 5 (1) (d).
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[...]
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For illustrative purposes only, the above requirements would be read as:

**Notification 5. (1)** At least 14 days before a [Class C facility] is put into use after construction or alteration, the owner or the owner's agent shall notify, in writing, the medical officer of health or a public health inspector for the health unit where the [Class C facility] is situate,

- (a) of the building permit number issued for the construction or alteration of the [Class C facility];
- (b) whether or not all the preparations necessary to operate the [Class C facility] in accordance with this Regulation have been completed;
- (c) of the date that the [Class C facility] is intended to be opened or re-opened for use;
- (e) of the name and address of the operator.

## Lifeguard Certification and Supervision

Public pools under Reg. 565 (Public Pools) are required to have lifeguard supervision as per the requirements in section 17. Reg. 565 (Public Pools) outlines specific lifeguard requirements and ratios. Lifeguards are trained and certified to supervise bathers and their physical safety in a pool.

### Lifeguard & assistant lifeguard certificates

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Recognized lifeguard and assistant lifeguard certificates include certificates issued by the Lifesaving Society, Canadian Red Cross or an equivalent certificate that is approved by the Minister of Health and Long-Term Care. Certificates that are currently recognized are listed in Appendix D. These certificates, or a copy of these certificates, must be available at any time for the pool owner, operator and/or PHI to examine. Electronic records are adequate if readily available to the PHI during an inspection.

### Lifeguard training standard

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Ontario applies Lifeguard and Assistant Lifeguard Training Standards (Lifeguard Standard) based on currently accepted international and North American standards, for which lifeguard training certificates may be evaluated to determine equivalency. The Lifeguard Standard includes guiding principles and requirements for course quality, development, delivery and content. Examples of course requirements include instructor to participant ratio, first aid and cardiopulmonary resuscitation (CPR) certification, physical standards and rescue skills, pool supervision, facility analysis, and communication.

Recognized lifeguard and assistant lifeguard certificates must meet or exceed the minimum requirements of the Lifeguard Standard. Organizations not listed in Reg. 565 (Public Pools), who wish to have a lifeguard and assistant lifeguard training program considered for equivalency by the Minister of Health and Long-Term Care, may submit an application to the ministry.

### Lifeguard and assistant lifeguard supervision exemptions

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Public pools may be exempt from lifeguard supervision in Reg. 565 (Public Pools) based on one of the following two (2) scenarios:

• A Class B pool that is not operated in conjunction with a child care centre or day camp, and has the required notice from section 17 (19) of the public pools

regulation posted in a conspicuous location, to notify the public that the pool is unsupervised.

OR

• A public pool operated in conjunction with a child care centre or day camp, with a water depth not exceeding 1.10 metres, and where the lifeguards or assistant lifeguards are replaced by one or more persons 16 years of age or over where each person has satisfied the operators that he or she is a competent swimmer, is trained in emergency procedures for the pool and is the holder of a current first-aid certificate referred to in section 17(11).

## **Admission Standards**

In accordance with the recommendations of Ontario's Chief Coroner, Reg. 565 (Public Pools) includes admission standards and swimming competency tests to better protect children and bathers.

### Guardian supervision of bathers under age ten (10) in Class A

#### pools



Requirement S. 17. (21) Every owner and every operator of a Class A pool shall ensure that there is a process in place to ensure a guardian or designated person supervises children under 10 years of age. The process must include a swimming competency test and a method of communicating the requirements of the process.

Class A pools are required to have a process in place to ensure a guardian<sup>\*</sup> or designated person supervises children under 10 years of age, known as an admission standard. However, Reg. 565 (Public Pools) does not set out specific admission standard requirements. The intent is to allow owners and operators of pools to determine admission standards that reflect the conditions of their pool. The aim of the admission standard is to improve the ability of lifeguards to provide overall pool supervision and reduce the risk of drowning deaths and injuries.

Operators may consult with industry experts such as the Lifesaving Society and Canadian Red Cross on best practices (e.g., swimming competency tests) in order to meet the regulatory requirements.

Operators must communicate the requirements of the admission standard process to users

<sup>\*</sup> Note that guardian does not necessarily mean legal guardian. It can include a parent or caregiver or other adult supervising young children.

that may be affected in advance. Operators may meet this requirement by posting information on the pool website, pool program guide, a recorded telephone message, pamphlets, and on-site signage.

Admission standards may not apply when a Class A pool is being used solely by one or more groups each not exceeding 25 in number for aquatic instruction, practice, or competition provided specific regulatory requirements are met. Refer to the section regarding Aquatic Instruction and Instructor Certification for more information.

### Waterparks



Given the unique design features of waterparks and premises with multiple recreational water facilities, some of which may make traditional swim tests difficult to conduct, operators are required to assess the safety procedures in place for children under 10 years of age to ensure an adequate level of oversight for bather safety.

## **Supervision at Class C Facilities**

Wading pools, which are commonly used by young children, may reach up to 0.75 meters deep and can present a risk of drowning and enteric illness. Ensuring the water is appropriately treated and maintained safely is important as wading pools can be a source of bacteria, viruses and parasites. Operators must be able to promptly respond to any health and safety issues such as equipment failure or pool fouling. For recommended pool fouling responses by the Centers for Disease Control and Prevention (CDC), refer to Appendix E.<sup>9</sup>

An attendant is required at wading pools with water depths between 15cm-75cm deep and are optional for those with a water depth of 15cm of less, provided they meet the prescribed requirements if there will not be an attendant present (see sections below). An attendant is not required on-site for spray/splash pads; however, guardians must be present to actively supervise and ensure the safety of their dependent using the facility.

### Wading pool supervision



Requirement S. 26.3 Every operator of a public wading pool shall,

(b) ensure attendant supervision at all times that the public wading pool is in operation and where the wading pool is operated in conjunction with a public pool, ensure that the required supervision of the wading pool is in addition to any required bathing supervision for the public pool.

Wading pool operators are required to have an attendant present at all times of operation for

public wading pools with a water depth between 15cm and 75cm deep. While not a requirement of Reg. 565 (Public Pools), attendants should be a minimum of 14 years of age and be:

- Attired so as to be readily identified by the users;
- The holder of a standard level first aid certificate; and
- Trained in operational and emergency procedures.

### Wading pool supervision exception

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Requirement S. 26.3 (2) Clause (1) (b) does not apply to a public wading pool with a water depth of 15cm or less if,

- (a) the owner or operator provides notice to the medical officer of health or public health inspector of the health unit where the public wading pool is situated that they will not be providing an attendant for supervision;
- (b) the owner or operator has developed a written safety plan to be available to any person, including the local medical officer of health or designate upon request; and
- (c) the following notice is printed in letters at least twenty-five millimetres high is displayed in a conspicuous location within the public wading pool enclosure:

#### CAUTION

THIS POOL IS UNSUPERVISED. BATHERS UNDER TWELVE YEARS OF AGE ARE NOT ALLOWED WITHIN THE PUBLIC WADING POOL ENCLOSURE UNLESS ACCOMPANIED BY A PARENT OR HIS OR HER AGENT WHO IS NOT LESS THAN SIXTEEN YEARS OF AGE

Wading pools with a water depth of 15cm or less are able to be exempt from the requirements of an attendant provided that they meet all three requirements outlined in this section.

The written safety plan should:

- Identify and describe health and injury risks to pool users of the facility;
- Identify and describe safety strategies, procedures, or rules to prevent, control, and/ or minimize those risks;
- Outline procedures to respond to serious injuries, emergencies, and critical incidents to ensure they are handled in a safe and efficient manner;
- Describe how health and safety incidents that occur will be recorded and identify actions to mitigate future incidents; and
- Describe how the plan will be communicated to employees and other relevant parties.

It is recommended that this safety plan be reviewed annually, at minimum, and throughout the season as needed. Additionally, there should be a method set out in the written safety plan for notifying the operator of an issue at the wading pool.

### Spray/splash pad signage



Requirement S. 26.4 (2) Every operator of a public spray pad or public splash pad shall post clearly visible signage in a conspicuous place notifying parents or guardians to supervise their children at all times when using the public spray pad or public splash pad.

Spray/splash pad operators are not required to have active supervision at the facility; however, they are required to have signage notifying parents or guardians that children must be supervised at all times when using the facility. Signage should be clearly visible. Sample messaging may include:

"Parents or guardians must continually supervise children"

For more information on signage, please refer to the section regarding spray/splash pads.

## Aquatic Instruction and Instructor Certification

A public pool may be exempt from the bather supervision (i.e., lifeguard) ratios when the pool is being used solely for aquatic instruction, practice, competition or display, provided certain requirements are met.

Requirement S. 17 (16) A public pool is exempt from the safety supervision requirements of subsections (2), (3) and (21) if an operator ensures adequate supervision is provided during a period when the pool is being used solely by one or more groups each not exceeding 25 in number for aquatic instruction, practice, competition or display under the direct supervision of a certified aquatic instructor or coach, and the requirements in subsection (17) are met.

When a public pool is used for aquatic instruction (e.g., swimming lessons, aquatic exercises/ aquafit), the following requirements apply:

Requirement S. 17 (17) The following applies for the purposes of subsection (16):

1. Every aquatic instructor and every coach shall be at least 15 years of age and be a holder of an aquatic instructor certificate that is dated not more than two years prior to the date on which he or she is acting as an aquatic instructor or coach.

- 2. Every aquatic instructor and every coach shall be a holder of either a lifeguard certificate or an assistant lifeguard certificate that is dated not more than two years prior to the date on which he or she is acting as an aquatic instructor or coach.
- 3. Where an aquatic instructor or coach does not hold a lifeguard certificate or an assistant lifeguard certificate that is dated not more than two years prior to the date on which he or she is acting as an aquatic instructor or coach, the operator shall ensure a lifeguard is on duty on the deck during the period when the pool is being used for aquatic instruction, practice, competition or display.

To meet the above requirement, each class requires a certified instructor or coach holding a current lifeguard or assistant lifeguard certification or a lifeguard must be providing direct supervision of that class.

Requirement S. 17 (17) The following applies for the purposes of subsection (16):

- 4. In the case of underwater aquatic instruction, the instructor certificate mentioned in paragraph 1 must be issued by,
  - i. The National Association of Underwater Instructors,
  - ii. The Professional Association of Diving Instructors, or
  - iii. The Association of Canadian Underwater Councils.

For the purposes of Reg. 565 (Public Pools), a certificate from the National Coaching Certification Program (NCCP) from one of the aquatic sports is recognized as "certified aquatic instructor". A pool is exempt from providing lifeguards or assistant lifeguards if the aquatic coach also holds a recognized assistant lifeguard or lifeguard certificate. Aquatic coaches do not need to become certified lifeguards or assistant lifeguards if the operator ensures a lifeguard is on duty on the deck during the aquatic instruction, practice or competition.

## First Aid

First aid certificate requirements have been harmonized across Reg. 565 (Public Pools) and *Ontario Regulation 503/17 (Recreational Camps)* under the HPPA.<sup>10</sup>

### Certification



Requirement 17. (11) For the purpose of subsection (10), "current first aid certificate" means a standard or higher first aid certificate that is dated not more than three years prior to the date on which the holder is on duty and that is issued by one of the following agencies:

- 1. St. John Ambulance.
- 2. Canadian Red Cross.
- 3. Lifesaving Society.
- 4. Canadian Ski Patrol.
- 5. An organization whose certificate the medical officer of health considers equivalent to a certificate referred to in paragraph 1, 2, 3 or 4.

Organizations not listed who wish to have their first aid certificate considered for equivalency may submit an application to the local MOH. The ministry will, if requested by the local MOH, assist with the review to determine equivalency.

### First aid kits

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In order to allow flexibility for operators, Reg. 565 (Public Pools) sets out the first aid supplies for the first aid kit. Operators should ensure a sufficient quantity of each to meet the needs of their facility. Note, operators are required to also comply with minimum requirements for workplace first aid kits under the *Workplace Safety and Insurance Act, 1997* (see Reg. 1101, s. 1.).<sup>10</sup> Though the specific contents listed below are not required for wading pools or floatation tanks, they do need a first aid kit, and it is recommended that the prescribed content set out below also be included.

Requirement 20. (2) Every owner and every operator of a public pool or public spa shall ensure that, subject to subsection (3), there is provided, in places conveniently located for emergency use, a first aid kit containing at a minimum,

- (a) a current copy of a standard first aid manual;
- (b) safety pins;
- (c) adhesive dressings individually wrapped;
- (d) sterile gauze pads, each 75 millimetres square;
- (e) 50 millimetre gauze bandages;
- (f) 100 millimetre gauze bandages;
- (g) sterile surgical pads suitable for pressure dressings individually wrapped;
- (h) triangular bandages;
- (i) rolls of splint padding;
- (j) at least one roll-up splint;
- (k) at least one pair of scissors;

- (I) non-permeable gloves, and
- (m) resuscitation pocket masks.

Operators may wish to refer to the Canadian Standards Association (CSA) standard for Workplace First Aid Kits (CSA Z1220 -17) which was developed in 2017.<sup>12</sup> This standard is part of an initiative to create a national system for workplace first aid in Canada. It specifies a classification system for workplace first aid kits and provides minimum requirements for their contents. It also includes guidance to organizations in carrying out a workplace first aid risk assessment to augment the minimum requirements as applicable. Below is an excerpt from the standard.

#### Figure 1: Excerpt from CSA standard for Workplace First Aid Kits 1 Z1220-17<sup>12</sup>

#### 0.2 Classification system

This Standard defines a new workplace first aid kit classification system. It follows a "scalability approach" that will allow organizations improved flexibility in meeting the unique needs of their specific worksites, while still ensuring minimum requirements are set forth based on the number of workers.

Three main classifications of workplace first aid kits are included:

Type 1: Personal; Type 2: Basic; Type 3: Intermediate.

Note: The intermediate kit is intended to be utilized within workplaces with a higher risk environment.

To allow for organizational variability the Type 2 and Type 3 kits have been further classified into small, medium and large. The sub-classifications of small, medium and large correspond to the number of workers at the worksite per shift ensuring a larger organization has more supplies on hand to satisfy the needs of a larger population

For more information see: <u>https://www.csagroup.org/store/product/Z1220-17/</u>

## Water Parameters, Testing, Monitoring and Recording Frequencies

Operational checks and recordings of water parameters, equipment, and procedures are important in maintaining a safe recreational water facility. Many factors, including temperature, bather use, sunlight, and equipment failure can contribute to a change in water chemistry and ability to disinfect the water, provide bather comfort, and water clarity. It is important that an operator actively monitors these aspects of water quality throughout the day to address the variation of chemical balance that may occur. Operators must ensure that these records are available for PHI viewing for up to one year. Records can help operators provide due diligence in the event of a waterborne illness outbreak investigation.

### Water chemistry parameters

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The following table displays requirements of Reg. 565 (Public Pools) and ranges.

Requirement (where applicable)	Range
Alkalinity	60-180 ppm
рН	7.2-7.8
FAC for a pool	0.5-10.0 ppm
FAC for a pool with cyanuric acid	1.0-10.0 ppm
FAC for a cold plunge pool or floatation pool	5.0-10.0 ppm
Bromine for a pool	2.0-8.0 ppm
FAC for a spa or hot water pool that operates at a temperature of 35°C or greater	5.0-10.0 ppm
Bromine for a spa or hot water pool that operates at a temperature of 35°C or greater	5.0-10.0 ppm
ORP	600-900 mV
Cyanuric acid	Max 60 ppm
Floatation pools	UV treatment system appropriately sized for the pool with an automatic shut off or audible or visual alarm in case of system failure.

### Multiple pools on one recirculation system



Requirement S. 7 (8) Every owner and every operator of a public pool or public spa shall ensure that the pool or spa water is treated with chlorine, a chlorine compound or a

bromine compound by means of a chemical feeder, and is maintained so that in every part of the pool or spa, at all times during the daily use period,

Where there are multiple pools that are treated through one shared recirculation system, each pool should be tested for water chemistry parameters to ensure that in every part of the pool the water chemistry is being maintained. In the event that the water chemistry does not meet the prescribed standards and the PHI deems that the pool needs to be closed, all pools on the same recirculation system should be closed.

### Frequency of operational checks for record keeping

### A√B√C√S√

The following two tables displays the frequency of operational checks as per Reg. 565 (Public Pools)<sup>†</sup>.

Operational Check	Frequency
Water clarity	
Spas and hot water pools water temperature	30 minutes prior to opening + every two hours
Alkalinity	or
• pH	30 minutes prior to opening + every four
• FAC/TC	hours with automatic sensing device
Bromine	
ORP	Daily
Cyanuric acid	Weekly
Outlet covers	30 days

#### Additional operational checks<sup>‡</sup>

Operational Check	Frequency
Emergency stop button	30 days

<sup>&</sup>lt;sup>†</sup> The following table does not apply to spray/splash pads or floatation tanks.

<sup>&</sup>lt;sup>‡</sup> The following table does not apply to Class C facilities

GFCI test button	Min. 30 days or more often if manufacturer directions state
Emergency phone test	Daily (before opening)

### Additional record keeping

### A√B√C√S√

The following table displays additional records as per Reg. 565 (Public Pools)

Additional Record	Frequency
Estimated number of bathers	Daily
Any emergencies, rescues or equipment breakdowns	Daily
Make-up water meter reading for pools, and if applicable, for spas	Daily
Spa drainage, inspection, and refill, if applicable	As required
Amount of chemicals added manually, if applicable	As required

### Frequency of operational checks



Requirement 7 (12) Where the pool or spa has an automatic sensing device, the requirements provided for in subsection (11) must be further checked and recorded at least every four hours until the daily use period has ended. For pools and spas without an automatic sensing device, the requirements provided for in subsection (11) must be further manually checked and recorded at least every two hours until the daily use period has ended.

The following requirements have been streamlined for operators of both public pools and spas.

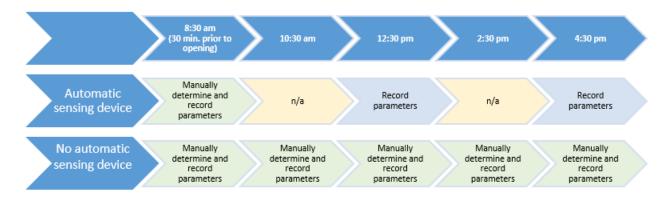
• Every operator of a pool and spa shall manually test and record the required parameters 30 minutes prior to operating. This will verify that the facility's water

parameters are within the correct range prior to bather use or will provide time to resolve any water quality issues.

- Following the initial testing, operators with automatic sensing devices will determine all of the parameters a minimum of once every four hours. Where automatic sensing devices are capable of displaying the specific levels (i.e. pH and sanitizer residual in ppm), manual testing may not be required for the displayed values. These observations must be recorded every four hours, either in a logbook or by a record output provided by the automatic sensing device. Values not displayed (i.e. total alkalinity) are to be manually recorded every 4 hours.
- Operators who do not have an automatic sensing device shall manually determine and record all of the test results of the required parameters a minimum of every two hours.

An overview of the above requirements is found in the scenario for a pool that is open at 9:00am and closes at 6:00pm. Operators are encouraged to speak to the local board of health if they have any questions regarding the operation of their facility.

If the pool uses an Oxidation-Reduction Potential (ORP) sensing device, operators should record the ORP reading at the same time and frequency that the pH and sanitizer residual (ppm) are determined. The ORP reading must be between 600-900 mV. Further information on ORP is provided in Figure 3.



#### Figure 2: Example frequency of operational checks

#### Figure 3: Additional Information on ORP and Recreational Water Quality<sup>13</sup>

The Oxidation Reduction Potential (ORP) is a useful supplement to other metrics such as pH and free available chlorine (FAC) as an indication of the swimming pool or spa water's ability to inactivate waterborne pathogens when using chlorine or bromine as the sanitizer. ORP is not itself a measurement of sanitizer concentration, but it provides complementary information that indicates whether water conditions are sufficient for controlling microbial contamination. An ORP level between 600-900 mV indicates that most pathogens will be rapidly inactivated.

The pH of the water affects the ratio of species (form) of chlorine or bromine which are present. The effectiveness of these species for pathogen inactivation varies, but standard

measurements (e.g., FAC concentration) do not take this into account. For example, the hypochlorous acid component of FAC is the major species of chlorine at lower pH values and is 100 times more potent for inactivating viruses and cysts, and 70 times more potent for inactivating *E. coli* compared to the hypochlorite ion. As the pH rises, less hypochlorous acid is present so survival times of pathogens are longer. Although the FAC measurement does not reflect the changing ratio of these species with different pH, the ORP does change and indicates the overall disinfection capabilities of the water.

Similarly, when cyanuric acid is used to stabilize chlorine in water that is exposed to direct sunlight, the disinfection effectiveness of free chlorine is reduced. This is not reflected in FAC measurements but is reflected with changes in the ORP values.

Although ORP is a useful addition to other metrics, it has limitations. The electrodes used to measure ORP must be kept clean and calibrated to provide accurate readings and can become saturated by high exposures to electro-chemical forces (e.g., if there is a sudden increase in sanitizer concentration near the electrode) and require several minutes to return representative readings.

### **Electronic Records**

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The decision to permit electronic pool records, subject to the requirements of Reg. 565 (Public Pools), is left to the discretion of the local board of health. During inspections, the PHI may find that regulatory requirements set by Reg. 565 (Public Pools) are met by the electronic pool records.

### Manual Pool Test Kits

Owners/ operators of public pools are required to have adequate test kits to accurately monitor the public pool water chemistry. Dip and read strips must not be used to measure chlorine, pH, or total alkalinity.

Due to the high salinity of floatation tanks and floatation pools, owners/operators should ensure that the test kits are capable of accurately verifying water chemistry parameters.

## Recirculating & Non-recirculating Spray/Splash Pads

Spray/splash pads may vary in design and construction. Some splash pads have recirculating water systems in which water is filtered and disinfected and fresh make-up water added. Other systems do not recirculate water and instead it is drained as it is used. All operators must ensure that make-up water and source water is clean and free from

contamination.

### **Recirculating splash pads**

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Requirement S. 26.4 (1) Every operator of a public spray pad or public splash pad shall ensure that, where water is recirculating, the water is filtered and disinfected as approved by the local medical officer of health or a public health inspector for the health unit where the public spray pad or public splash pad is situate.

Recirculating splash pads and spray features that draw water directly from the pool (e.g., "mushroom features", umbrellas, fountains) require both primary and secondary disinfection. The filtration and disinfection process for spray/splash pads must be approved by the MOH or PHI. The frequency at which the operator should test the water quality to confirm the system is working should also receive approval. Operators and PHIs should work together to implement a water monitoring plan appropriate for the facility. It is recommended that the following steps be implemented as part of a water monitoring plan:

- 1. The water is filtered;
- 2. Chemically disinfected with chlorine or bromine;
- 3. Retained in a storage tank for the appropriate period of time to allow effective disinfection to occur; and
- 4. Treated with ultraviolet light capable of rendering cysts and oocysts inactive before water enters the spray/splash pad. Proper turbidity monitoring should be in place to ensure the UV treatment device is effective. UV treatment units should have a mechanism in place to prevent water from being directed to the spray pad/splash pad in the event of equipment malfunction.
- 5. Testing of the disinfectant and pH levels should occur every 2-4 hours.
- 6. A monitoring plan should include the availability of a qualified operator to attend the site promptly to address any issues. Contact information for the operator should be available on signage at the splash pad.

### Local MOH or PHI approval

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Where an operator is seeking approval from the MOH or PHI on a new or emerging treatment system, the operator should consult with recreational water industry experts on a proposed design and other relevant information to bring forward to the MOH or PHI.

### Non-recirculating splash pads



Requirement S. 7. (1) Every owner and every operator of a public pool or public spa shall ensure that the clean water and the make-up water are free from contamination that may be injurious to the health of the bathers.

Requirement S. 26.1 (2) For the purposes of applying subsection 7 (1) to public spray pads or public splash pads without a circulation system, "make-up water" shall be read as "source water".

For splash pads that are non-recirculating, operators must ensure that the source water is safe for bather use. Operators may use a municipal water supply or other reliable source approved by the PHI.

Where the water is non-recirculating and held in a basin for more than 15 minutes, it should be treated and discharged directly to waste within a minimum of four hours.

## Safety Equipment

The presence of safety equipment at recreational water facilities is important in protecting bather safety, preventing accidents, and assisting in emergency situations should they occur.

A top priority is to prevent accidents or injury from occurring at a recreational water facility and to be prepared when they do occur. Being prepared in the case of an emergency will allow for a quick response that may save a life or avoid significant injury. Reg. 565 (Public Pools) provides for adequate supervision, provision of safety equipment, first aid supplies, and emergency signage. Operators may also decide whether additional equipment is appropriate to ensure a high level of safety at the facility. It is important to maintain safety equipment in good condition and to inspect it regularly to ensure it is functioning appropriately. The availability of functioning life-saving equipment, including a phone, is key to ensuring a fast, effective response.

### Anti-entrapment devices

A public pool, spa, and wading pool designed with one singular drain (outlet) may pose a very serious hazard. One-drain design increases the risk of a suction hazard that traps bathers below water level and has led to serious injury and drowning.

The Ontario Building Code no longer permits the construction of pools and spas with a single main drain due to the risk of suction entrapment and drowning. If a public pool

contains only one main drain, pool operators should equip the pool with an anti-entrapment barrier to eliminate this dangerous condition.

Industry experts recommend additional anti-entrapment barriers or systems such as an unblockable drain, anti-entrapment outlet covers, a suction limiting vent system, vacuum release mechanisms, or an automatic pump shut-off.

It is recommended that owners or operators speak with an industry expert and PHI if the pool only has one drain that can cause entrapment.

### Daily inspection of working emergency phone



Requirement S. 16 (2) Every operator shall ensure, before the public pool or spa is opened for use each day, that,

- (a) in the case of a Class A pool, the emergency telephone required under clause (1)(a) is tested to confirm that the system is in operating condition; and
- (b) in the case of a Class B pool, the telephone required under clause (1) (b) is tested to confirm that it is in operating condition; and
- (c) in the case of a public spa, the telephone required under clause (1) (c) is tested to confirm that it is in operating condition.

Public pool and spa operators are required to ensure that the emergency phone is tested and in working condition for every day the pool or spa is operating. This test is to be performed prior to opening, to confirm it is working for the operating day. A test may include direct communication with a test number, or if necessary, a direct communication with emergency services. Operators shall demonstrate to the PHI that the emergency phone system is working.

### Class B pools emergency phone and location



Requirement S. 16 (1) Every owner and every operator shall ensure that,

(b) in the case of a class B pool, a telephone for emergency use is accessible no farther than 30 metres from the pool.

A Class B pool are required to have a working emergency phone within 30 meters from the pool to ensure contact with emergency services is not delayed. Operators should also be able to demonstrate the accessibility and operation of the phone at all times while the pool is

in operation.

### Back-up emergency communication devices



As part of a pool operation plan, owners and operators should consider including additional back-up communication devices for additional safety. While it is not a substitute for the requirement of a telephone for emergency use, a cellular phone or other alarm systems to enhance the ability to communicate with emergency services may be used to ensure emergency services are contacted as quickly as possible in the event of an emergency. Operators who choose to have additional communication devices should also ensure they are operational similarly to the regulatory requirements. Staff on duty should be trained in the use of the emergency phone and additional devices.

### Buoy line in Class B pools where the slope is 8% or greater

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Requirement S. 20. (1) Subject to subsection (3), every owner and every operator of a public pool other than an owner or operator of a wave action pool, and every owner and operator of a public spa that has an inner horizontal dimension greater than three metres, shall ensure that there are provided in places conveniently located for emergency use,

(c) in the case of a Class B pool that is in operation and has a slope of more than eight per cent, a buoy line;

This requirement came from the Chief Coroner recommendation following a 2009 triple drowning at a Class B pool. The Ontario Building Code requires that pools with a slope of greater than 8% be equipped with the fittings for a safety buoy line. A buoy line has been identified as a measure to prevent a future drowning in an unsupervised Class B pool.

If a pool was built prior to the Ontario Building Code requirement for fittings and the original pool plans are not available, operators should calculate the slope to determine if it is greater than 8% (1:12).<sup>14</sup> To calculate the slope of the steepest part of the pool, divide the difference in depth between the shallow and deep end by the distance between the two points.

Slope  $\% = \frac{(pool \, depth \, at \, deep \, end \, of \, slope) - (pool \, depth \, at \, shallow \, end \, of \, slope)}{distance \, between \, deep \, and \, shallow \, end \, of \, slope} x \, 100$ 

An operational plan for the buoy line may be developed by the operator that allows the buoy line to be removed during lane swimming provided that once the lane swimming is complete the buoy line will need to be immediately replaced and that when not in use it does not pose

a risk for other bathers. The operator should be regularly verifying that the buoy line is being used appropriately during periods of lane swimming and periods where there is no lane swimming.

### Frequency and recording of inspections for additional safetyrelated equipment

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The following regulatory requirement applies to all operators of recreational water facilities.

Requirement S. 26.5 Every operator of a facility to which this Regulation applies shall record the results of inspections of safety-related equipment present in the facility at a frequency determined by a public health inspector for the health unit where the facility is situate.

Where safety equipment is available, operators should develop a schedule to ensure regular monitoring and maintenance of safety equipment. The schedule can range from daily to weekly, should meet the needs of the specific equipment used by the facility and should be available for the PHI to review. If any equipment is found to be unsafe or not operational, it should be fixed or replaced immediately. In some cases, this may require the closure of the facility.

Class C facilities are encouraged to be equipped with safety-related equipment in order to protect the health and safety of bathers. Examples of equipment for operators to inspect include:

- Operation of vacuum relief mechanism,
- Operation of ground fault circuit interrupters,
- Placement and operation of emergency equipment in addition to the emergency phone and first aid kit, such as non-conducting reaching poles and drain coverings; and
- Placement of signage.

### First aid kit and emergency communications device



Requirement S. 26.3 Every operator of a public wading pool shall,

(a) provide a first aid kit, a device for emergency communications and emergency equipment which is appropriate for use in the public wading pool;

and

Requirement S. 26.0.2 (1) Every owner and operator of a floatation tank shall,

(a) provide a first aid kit, a device for emergency communications and emergency equipment which is appropriate for use in the floatation tank;

Wading pool and floatation tank operators are required to have a first aid kit as well as a device for emergency communications.

## Signage

The use of signage is an important component of maintaining safe aquatic facilities. Public pool and spa signage requirements shall be posted in accordance with section 19 of Reg. 565 (Public Pools).

### Other information or photos



Requirement S. 19. Every owner and every operator of a public pool or public spa shall ensure that, at a minimum, the following notices and markings are displayed in the indicated places:

vii. any other information or photos that the owner or operator determines is necessary to maintain the health and safety of the persons using the pool.

Pool operators may choose to provide additional signage to ensure the health and safety of those using the facility. Signs should not conceal or distract from information required by Reg. 565 (Public Pools). Additional signage should be in English and any other language that may be common to the location, including brail or photos. Examples of additional signage may include:

• location of the first aid kit;

- notification of site specific hazards;
- the prohibition of facility use while under intoxication; and
- CPR posters when lifeguard is not present.

### Spray/splash pad signage

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Requirement 26.4 (2) Every operator of a public spray pad or public splash pad shall post clearly visible signage in a conspicuous place notifying parents or guardians to supervise their children at all times when using the public spray pad or public splash pad.

Spray/splash pad operators are required to have signage notifying parents or guardians that children must be supervised at all times when using the facility. Signage should be clearly visible. Example messaging may include:

"Parents or guardians must continually supervise children"

In addition to the required signage under Reg. 565 (Public Pools) section 26.4 (2), operators of public wading pools and splash pads may wish to communicate facility rules or additional safety issues. Examples (for illustrative purposes only):

#### "WADING POOL RULES"

- Children should be appropriately attired for their age and continence ability to prevent fouling of the wading pool (e.g., swim diapers recommended).
- No glass container, food, or beverage is allowed in the wading pool or in the area immediately surrounding the wading pool.
- Recreational water is not intended for drinking.
- Do not enter the wading pool if you have an open sore or rash, or are experiencing nausea, vomiting or diarrhea.
- No person shall pollute the water in the wading pool in any manner or on the area immediately surrounding the wading pool.
- No person shall engage in boisterous play in or about the wading pool.

#### "SPRAY/SPLASH PAD POOL RULES"

- Children should be appropriately attired for their age and continence ability to prevent fouling of the spray pad/splash pad (e.g., swim diapers recommended).
- No glass container, food, or beverage is allowed on the spray pad/splash pad or in the area immediately surrounding the spray pad/splash pad.
- Recreational water is not intended for drinking.

- Do not use the spray pad/splash pad if you have an open sore or rash, or are experiencing nausea, vomiting or diarrhea.
- No person shall pollute the water or surface of the spray pad/splash pad in any manner or on the immediate area surrounding the spray pad/splash pad.
- No person shall engage in boisterous play in or about the spray pad/splash pad.

### Additional signage recommended for Class C facilities

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Additional signage recommended for Class C facilities includes:

- List of the names, telephone numbers and addresses of persons who are available for resuscitation, medical aid and fire services;
- List of the full name and address of the wading pool, spray/splash pad, or floatation tank location, nearest main intersection and emergency telephone number;
- Bather capacity;
- Hours of operation; and
- Location of first-aid kit

### **Floatation Tanks**

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Section 2.1 The class of Class C facility is established, being any of the following:

4. A public floatation tank.

and

Requirement 26.1 (1) The following provisions of this Regulation apply, with necessary modification, to every owner and every operator of a Class C facility:

- 1. Section 5, other than clause 5 (1) (d).
- 2. Subsection 6 (1), clause 6 (3) (a) and clause 6 (6) (a).
- 3. Subsection 7 (1), subject to subsection (2) of this section, and subsection 7 (3).

Floatation tanks are required to meet all the requirements outlined for Class C facilities. Additional floatation tank requirements are outlined in Section 26.0.2.

# Alternative methods for filtering and disinfecting water in a public floatation tank

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Requirement 26.0.2 (2) Despite clause (1) (b), alternative methods for filtering and disinfecting the water in a public floatation tank may be submitted for review and approval in writing by the local medical officer of health or a public health inspector for the health unit where the public floatation tank is situated.

Operators of floatation tanks may submit, in writing, alternative methods for filtering and disinfection floatation tank water. These are to be submitted in writing to the local medical officer of health or public health inspector for review and approval. The operator should consult with recreational water industry experts on a proposed design and other relevant information to bring forward to the local medical officer of health or public health inspector.

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# Appendix A: Summary of Wading Pool Regulatory Requirements

#### Notification

**5. (1)** At least 14 days before a wading pool is put into use after construction or alteration, the owner or the owner's agent shall notify, in writing, the medical officer of health or a public health inspector for the health unit where the wading pool is situate,

- (a) of the building permit number issued for the construction or alteration of the wading pool;
- (b) whether or not all the preparations necessary to operate the wading pool in accordance with this Regulation have been completed;
- (c) of the date that the wading pool is intended to be opened or re-opened for use;
- (e) of the name and address of the operator.

(2) A person who proposes to open or re-open a wading pool for use as a public wading pool after construction or alteration shall not open or re-open the wading pool without first obtaining permission in writing from the medical officer of health or a public health inspector for the health unit where the wading pool is situate.

(3) At least 14 days before the re-opening of a wading pool after any closure that lasts for more than four weeks, the owner or operator shall notify in writing the medical officer of health or a public health inspector for the health unit where the wading pool is situate,

- (a) of the date that the wading pool is to be re-opened;
- (b) of the name and address of the operator;

(4) Every operator of a wading pool shall ensure that the results of any inspections conducted by a public health inspector are posted in accordance with the inspector's request.

(5) In this section, "alteration" does not include routine maintenance or repair or replacement of existing equipment.

# Operation

- 6. (1) Every owner of a wading pool shall designate an operator.
- (3) Every owner and every operator shall,
  - (a) maintain the wading pool and its equipment in a safe and sanitary condition;
  - (b) ensure that, except during the daily use period, the wading pool is rendered inaccessible to persons who are not involved with its operation, inspection or maintenance;
- (6) Every owner and every operator shall ensure that,
  - (a) all components of the wading pool are maintained in proper working order;

### Water quality

**7. (1)** Every owner and every operator of a wading pool shall ensure that the clean water and the make-up water are free from contamination that may be injurious to the health of the bathers.

(3) Every owner and every operator of a wading pool shall ensure that the wading pool water is maintained free from visible matter that may be hazardous to the health or safety of the bathers.

(8) Every owner and every operator of a wading pool shall ensure that the wading pool water is treated with chlorine, a chlorine compound or a bromine compound by means of a chemical feeder, and is maintained so that in every part of the wading pool, at all times during the daily use period,

- (a) the total alkalinity is maintained in the range of 60 ppm to 180 ppm;
- (b) the pH value is within the range of 7.2 to 7.8;
- (c) there is a residual of free available chlorine or total bromine in every part of a wading pool of at least 5 ppm but not more than 10 ppm;
- (f) if the wading pool is equipped with an automatic sensing device, the Oxidation Reduction Potential value is not less than 600 mV and not greater than 900 mV; and
- (g) where the medical officer of health determines that the health of the bathers may be affected, there is such higher minimum or maximum chlorine or bromine residual than required under clause (c), (d) or (e) as the medical officer of health may require in writing.

(9) The method used in determining the free available chlorine residual referred to in clause (8) (c) and, if applicable, paragraph 1 of subsection (10), shall be such that chloramines or other compounds that may be present in the wading pool do not affect the determination.

(11) Every operator of a wading pool shall test and record the following regarding the wading pool water each operating day, by means of manual test methods, a minimum of 30 minutes prior to opening:

- 1. Total alkalinity
- 2. pH value.
- 3. Free available chlorine and total chlorine or bromine residual.
- 4. Water clarity.

(12) Where the wading pool has an automatic sensing device, the requirements provided for in subsection (11) must be further checked and recorded at least every four hours until the daily use period has ended. For wading pools without an automatic sensing device, the requirements provided for in subsection (11) must be further manually checked and recorded at least every two hours until the daily use period has ended.

# Wading pool safety

**26.3** (1) Every operator of a public wading pool shall,

- (a) provide a first aid kit, a device for emergency communications and emergency equipment which is appropriate for use in the public wading pool; and
- (b) ensure attendant supervision at all times that the public wading pool is in operation and where the wading pool is operated in conjunction with a public pool, ensure that the required supervision of the wading pool is in addition to any required bathing supervision for the public pool.

(2) Clause (1) (b) does not apply to a public wading pool with a water depth of 15cm or less if,

- (a) the owner or operator provides notice to the medical officer of health or public health inspector of the health unit where the public wading pool is situated that they will not be providing an attendant for supervision;
- (b) the owner or operator has developed a written safety plan to be available to any person, including the local medical officer of health or designate upon request; and
- (c) the following notice is printed in letters at least twenty-five millimetres high is displayed in a conspicuous location within the public wading pool enclosure:

#### CAUTION

THIS POOL IS UNSUPERVISED. BATHERS UNDER TWELVE YEARS OF AGE ARE NOT ALLOWED WITHIN THE PUBLIC WADING POOL ENCLOSURE UNLESS ACCOMPANIED BY A PARENT OR HIS OR HER AGENT WHO IS NOT LESS THAN SIXTEEN YEARS OF AGE.

# Safety-related equipment record keeping

**26.5** Every operator of a facility to which this Regulation applies shall record the results of inspections of safety-related equipment present in the facility at a frequency determined by a public health inspector for the health unit where the facility is situate.

# Appendix B: Summary of Spray/Splash Pad Regulatory Requirements

#### Notification

**5. (1)** At least 14 days before a public spray pad or public splash pad is put into use after construction or alteration, the owner or the owner's agent shall notify, in writing, the medical officer of health or a public health inspector for the health unit where the public spray pad or public splash pad is situate,

- (a) of the building permit number issued for the construction or alteration of the public spray pad or public splash pad;
- (b) whether or not all the preparations necessary to operate the public spray pad or public splash pad in accordance with this Regulation have been completed;
- (c) of the date that the public spray pad or public splash pad is intended to be opened or re-opened for use;
- (e) of the name and address of the operator.

(2) A person who proposes to open or re-open a public spray pad or public splash pad for use as a public spray pad or public splash pad after construction or alteration shall not open or re-open the public spray pad or public splash pad without first obtaining permission in writing from the medical officer of health or a public health inspector for the health unit where the public spray pad or public splash pad is situate.

(3) At least 14 days before the re-opening of a public spray pad or public splash pad after any closure that lasts for more than four weeks, the owner or operator shall notify in writing the medical officer of health or a public health inspector for the health unit where the public spray pad or public splash pad is situate,

(a) of the date that the public spray pad or public splash pad is to be re-opened;

(b) of the name and address of the operator;

(4) Every operator of a public spray pad or public splash pad shall ensure that the results of any inspections conducted by a public health inspector are posted in accordance with the inspector's request.

(5) In this section, "alteration" does not include routine maintenance or repair or replacement of existing equipment.

# Operation

- 6. (1) Every owner of a public spray pad or public splash pad shall designate an operator.
- (3) Every owner and every operator shall,
  - (a) maintain the public spray pad or public splash pad and its equipment in a safe and sanitary condition;
- (6) Every owner and every operator shall ensure that,
  - (a) all components of the public spray pad or public splash pad are maintained in proper working order;

# Water quality

**7. (1)** Every owner and every operator of a public spray pad or public splash pad shall ensure that the clean water and the make-up water are free from contamination that may be injurious to the health of the bathers.

**26.1 (2)** For the purposes of applying subsection 7 (1) to public spray pads or public splash pads without a circulation system, "make-up water" shall be read as "source water".

**7. (3)** Every owner and every operator of a public spray pad or public splash pad shall ensure that the public spray pad or public splash pad water is maintained free from visible matter that may be hazardous to the health or safety of the bathers.

#### Splash pad water quality and signage

**26.4 (1)** Every operator of a public spray pad or public splash pad shall ensure that, where water is recirculating, the water is filtered and disinfected as approved by the local medical officer of health or a public health inspector for the health unit where the public spray pad or public splash pad is situate.

(2) Every operator of a public spray pad or public splash pad shall post clearly visible signage in a conspicuous place notifying parents or guardians to supervise their children at all times when using the public spray pad or public splash pad.

# Safety-related equipment record keeping

**26.5** Every operator of a facility to which this Regulation applies shall record the results of inspections of safety-related equipment present in the facility at a frequency determined by a public health inspector for the health unit where the facility is situate.

# Appendix C: Summary of Requirements for Floatation Tanks

#### Notification

**5. (1)** At least 14 days before a public floatation tank is put into use after construction or alteration, the owner or the owner's agent shall notify, in writing, the medical officer of health or a public health inspector for the health unit where the public floatation tank is situate,

- (a) of the building permit number issued for the construction or alteration of the public floatation tank;
- (b) whether or not all the preparations necessary to operate the public floatation tank in accordance with this Regulation have been completed;
- (c) of the date that the public floatation tank is intended to be opened or re-opened for use;
- (e) of the name and address of the operator.

(2) A person who proposes to open or re-open a public floatation tank for use as a public floatation tank after construction or alteration shall not open or re-open the public floatation tank without first obtaining permission in writing from the medical officer of health or a public health inspector for the health unit where the public floatation tank is situate.

(3) At least 14 days before the re-opening of a public floatation tank after any closure that lasts for more than four weeks, the owner or operator shall notify in writing the medical officer of health or a public health inspector for the health unit where the public floatation tank is situate,

- (a) of the date that the public floatation tank is to be re-opened;
- (b) of the name and address of the operator;

(4) Every operator of a public floatation tank shall ensure that the results of any inspections conducted by a public health inspector are posted in accordance with the inspector's request.

(5) In this section, "alteration" does not include routine maintenance or repair or replacement of existing equipment.

# Operation

- 6. (1) Every owner of a public floatation tank shall designate an operator.
- (3) Every owner and every operator shall,
  - (a) maintain the public floatation tank and its equipment in a safe and sanitary condition;
- (6) Every owner and every operator shall ensure that,
  - (a) all components of the public floatation tank are maintained in proper working order;

#### Water quality

**7. (1)** Every owner and every operator of a public floatation tank shall ensure that the clean water and the make-up water are free from contamination that may be injurious to the health of the bathers.

(3) Every owner and every operator of a public floatation tank shall ensure that the public floatation tank water is maintained free from visible matter that may be hazardous to the health or safety of the bathers.

### Additional floatation tank requirements

26.0.2 (1) Every owner and operator of a floatation tank shall,

(a) provide a first aid kit, a device for emergency communications and emergency equipment which is appropriate for use in the floatation tank;

(b) ensure that the water is treated with chlorine, a chlorine compound or bromine compound by means of a chemical feeder, and is maintained so that in every part of the floatation tank, at all times during the daily use period,

(i) the total alkalinity is maintained in the range of 80 ppm to 120 ppm;

(ii) the pH value is within the range of 7.2 to 7.8;

(iii) there is a residual of free available chlorine in every part of the floatation tank between 1.5 ppm and 5 ppm, or if bromine is used, between 2.5 ppm and 5 ppm; and

(iv) the water temperature is maintained at less than 37°C;

(c) test and record the requirements of clause (b) regarding the floatation tank water each operating day a minimum of 30 minutes prior to opening, and subsequently the lesser of every four hours or prior to each new bather;

(d) provide a filtration system suitable to the tank design that is capable of ensuring the water has three turnovers of the tank between each bather; and

(e) provide shower facilities available for bathers to shower before and after using the floatation tank.

(2) Despite clause (1) (b), alternative methods for filtering and disinfecting the water in a public floatation tank may be submitted for review and approval in writing by the local medical officer of health or a public health inspector for the health unit where the public floatation tank is situated.

### Safety-related equipment record keeping

**26.5** Every operator of a facility to which this Regulation applies shall record the results of inspections of safety-related equipment present in the facility at a frequency determined by a public health inspector for the health unit where the facility is situate.

# **Appendix D: Recognized Certifications**

Current accepted lifeguard certificates:

- National Lifeguard (Lifesaving Society)
- Canadian Red Cross Pool Lifeguard Certificate
- Canadian Red Cross Waterfront Lifeguard Certificate

Current accepted assistant lifeguard certificates

- Lifesaving Society Bronze Cross
- Canadian Red Cross Assistant Lifeguard Certificate

# Appendix E: Pool Fouling Responses<sup>§</sup>

#### Formed fecal matter in the water

Formed fecal incidents pose a risk for spreading germs, including moderately chlorine tolerant *Giardia*. To disinfect the water following a formed fecal incident, aquatic staff should follow the steps below, which are based on killing or inactivating *Giardia*.

Step 1	Close the aquatic venue to swimmers. If you have multiple venues that use the
	same filtration system—all of the venues will have to be closed to swimmers. Do not allow anyone to enter the venue(s) until the disinfection process is completed.
Step 2	Remove as much of the fecal matter as possible (for example, using a net or bucket) and dispose of the fecal matter in a sanitary manner. Clean and disinfect the item used to remove the fecal matter (for example, after cleaning, leave the net or bucket immersed in the water during disinfection). VACUUMING FECAL MATTER FROM THE WATER IS NOT RECOMMENDED.
Step 3	Using unstabilized chlorine (for example, sodium hypochlorite), raise the water's free chlorine concentration to 2 parts per million (ppm), if less than 2 ppm. Maintain free chlorine concentration at 2 ppm and water at pH 7.5 or less for 25–30 minutes.
	Other concentrations or closure times can be used (see table below). Higher free chlorine concentration may be required in the presence of chlorine stabilizers, which are known to slow the rate at which free chlorine inactivates or kills germs.
Step 4	Confirm that the filtration system is operating while the water reaches and is maintained at the proper free chlorine concentration and pH for disinfection.
Step 5	Allow swimmers back into the water only after the disinfection process has been completed and the free chlorine concentration and pH are within the operating range.

<sup>&</sup>lt;sup>§</sup> Appendix E is a summary of information originally provided by the Centers for Disease Control and Prevention, 2016.

Free Chlorine Concentration (ppm)	Disinfection Time
1.0	45 minutes
2.0	25-30 minutes
3.0	19 minutes

# Giardia kill or inactivation time for a formed fecal incident

#### Diarrhea in water when chlorine stabilizer is NOT in the water

A diarrheal incident is a high-risk event for contamination caused by *Cryptosporidium* (or "Crypto"), an extremely chlorine-tolerant parasite. Therefore, it is important that aquatic staff educate patrons not to swim when ill with diarrhea. To disinfect the water following a diarrheal incident, aquatic staff should hyperchlorinate, or raise the free chlorine concentration to a high concentration for a long period of time. If necessary, before attempting to hyperchlorinate, consult an aquatic professional to determine the feasibility, the most optimal and practical methods, and needed safety considerations.

Step 1	Close the aquatic venue to swimmers. If you have multiple venues that use the same filtration system—all of the venues will have to be closed to swimmers. Do not allow anyone to enter the venue(s) until the hyperchlorination process is completed.
Step 2	Remove as much of the fecal matter as possible (for example, using a net or bucket) and dispose of the fecal matter in a sanitary manner. Clean and disinfect the item used to remove the fecal matter (for example, after cleaning, leave the net or bucket immersed in the water during hyperchlorination). VACUUMING FECAL MATTER FROM THE WATER IS NOT RECOMMENDED.
Step 3	Using unstabilized chlorine (for example, sodium hypochlorite), raise the water's free chlorine concentration (see Table below) and maintain water at pH 7.5 or less.
Step 4	Achieve a concentration × time (CT) inactivation value of 15,300 to inactivate or kill Crypto. The CT inactivation value refers to the concentration of free chlorine in parts per million (ppm) multiplied by time in minutes at a specific pH and temperature.
Step 5	Confirm that the filtration system is operating while the water reaches and is maintained at the proper free chlorine concentration and pH for hyperchlorination.

Step 6	Backwash the filter thoroughly after reaching the CT inactivation value. Be sure to discharge directly to waste and according to state or local regulations. Do not return the backwash through the filter. Where appropriate, replace the filter media.
Step 7	Allow swimmers back into the water only after the required CT inactivation value has been achieved and the free chlorine concentration and pH are within the operating range.

# Formula for calculating the time required to inactivate or kill *Cryptosporidium*

Use the formula below to calculate the time required to inactivate or kill Cryptosporidium.

Concentration × time (CT) inactivation value	÷	Free chlorine concentration (parts per million [ppm])	Time (in minutes)
15,300	÷	20	= 765 (or 12.75 hours)
15,300	÷	10	= 1,530 (or 25.5 hours)

#### Diarrhea in water when chlorine stabilizer IS in the water

A diarrheal incident is a high-risk event for contamination caused by Cryptosporidium (or "Crypto"), an extremely chlorine-tolerant parasite. Therefore, it is important that aquatic staff educate patrons not to swim when ill with diarrhea. To disinfect the water following a diarrheal incident, aquatic staff should hyperchlorinate, or raise the free chlorine concentration to a high concentration for a long period of time. If necessary, before attempting to hyperchlorinate, consult an aquatic professional to determine the feasibility, the most optimal and practical methods, and needed safety considerations.

Step 1	Close the aquatic venue to swimmers. If you have multiple venues that use the same filtration system, all of the venues will have to be closed to swimmers. Do not allow anyone to enter the venue(s) until the hyperchlorination process is completed.
Step 2	Remove as much of the fecal matter as possible (for example, using a net or bucket) and dispose of the fecal matter in a sanitary manner. Clean and disinfect the item used to remove the fecal matter (for example, after cleaning, leave the net or bucket immersed in the water during hyperchlorination). VACUUMING FECAL MATTER FROM THE WATER IS NOT RECOMMENDED.
Step 3	Using unstabilized chlorine (for example, sodium hypochlorite), raise the water's free chlorine concentration and maintain water at pH 7.5 or less.

Step 4	Hyperchlorinate. Chlorine stabilizer slows the rate at which free chlorine inactivates or kills Crypto, and the more stabilizer there is in the water the longer it takes to kill Crypto.			
	If the cyanuric acid concentration is 1–15 parts per million (ppm)			
	Raise the free chlorine concentration to 20 ppm for 28 hours or			
	Raise the free chlorine concentration to 30 ppm for 18 hours or			
	Raise the free chlorine concentration to 40 ppm for 8.5 hours			
	If the cyanuric acid concentration is more than15 ppm, lower the concentration to 1–15 ppm by draining partially and adding fresh water without chlorine stabilizer before attempting to hyperchlorinate.			
Step 5	Confirm that the filtration system is operating while the water reaches and is maintained at the proper free chlorine concentration and pH for hyperchlorination.			
Step 6	Backwash the filter thoroughly after hyperchlorination has been completed. Be sure to discharge directly to waste. Do not return the backwash through the filter. Where appropriate, replace the filter media.			
Step 7	Allow swimmers back into the water only after hyperchlorination has been completed and the free chlorine concentration and pH are within the operating range.			