

Public Wading Pool Safety Standards

July 2004



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PUBLIC WADING POOL SAFETY STANDARDS

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The Lifesaving Society is Canada's lifeguarding experts. The Society is a national charitable organization working to prevent drowning and water-related injuries through lifeguard, lifesaving, and swimming training, competitive lifesaving, safety management standards and services, and Water Smart® public education.

The Society is an independent, charitable organization educating Canadian lifesavers since the first Lifesaving Society Bronze Medallion Award was earned in 1896.

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Public Wading Pool Safety Standards

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EXECUTIVE SUMMARY

Every owner of a public wading pool has an obligation to provide a safe environment for every user of the pool. This obligation has been very clearly identified and affirmed by court decisions across Canada. In order to meet this obligation, you need the assistance of the experts – the Lifesaving Society. The Lifesaving Society is the authority in aquatic standards and safety. Our standards and expertise are based on extensive research and over 100 years of public safety education and service. We are leaders in research and prevention of injury and drowning.

The Lifesaving Society has a mandate for public safety. The Lifesaving Society *Public Wading Pool Safety Standards* are your source of information about how to provide a safe environment and understand the regulations and standards that you must follow to achieve this goal. The Society developed and published these standards to educate pool owners about what they can do to safely operate their pool. Applying these standards to your pool will help you protect your customers – the public. It will also help you reduce the risk of injury or legal actions resulting from injuries.

The information in the Lifesaving Society *Public Wading Pool Safety Standards* is organized in a logical order to help you understand the material and take the necessary actions to create and maintain a safe environment for your pool users. The following sections of the Standards address information for specific needs:

- **The Drowning Problem** – Provides you with information from the Lifesaving Society Drowning Research about children who are at risk of drowning or being injured at your pool and the behaviors that may result in injuries.
- **Definitions** – Definitions of terms used in the standards.
- **Risk Management** – Provides you with information about your responsibility as the pool owner for the safe operation of your pool. Explains the risk management process that you can use to analyze and understand the risks associated with your pool and take steps to eliminate or reduce these risks.
- **Personnel and Supervision** – Explains the requirements for staff to operate and supervise a public wading pool. It also includes recommendations for staff training and safety.
- **Emergency Procedures** – Emergency procedures are the steps wading pool staff can take to respond to an incident or help an injured person. This section provides guidance to help you identify and plan for the procedures you will need for your pool and select the necessary emergency equipment.
- **Safety Systems** – Safety systems are the day to day actions and policies established to prevent incidents and injuries. They include

such things as pool rules and how they are to be implemented, procedures for controlling access to the pool and suggestions for signs to educate users about hazards and safe behaviors for using the pool.

- **Pool Operation** – Presents recommendations for the procedures used to operate the wading pool and maintain a safe pool. This includes maintaining safe water quality, handling pool chemicals, and inspecting and testing pool equipment.
- **Safe Environment** – This section provides you with direction about how to make the physical environment of the pool safe. This includes items such as fencing, gates, pool covers, recreational equipment such as slides, safe water quality, pool and equipment maintenance and much more.
- **Resources** – This section includes information about additional support resources and information available from the Lifesaving Society. This includes Lifesaving Society links to Government resources and other organizations which can assist aquatic facility owners and operators to provide a safe environment. The *Safety Management* section of the Lifesaving Society website, www.lifesaving.org, is your key to the most complete and current resources from the Society.

The Lifesaving Society recommends that you read the Lifesaving Society *Public Wading Pool Safety Standards* and use this document to evaluate your pool and determine what steps you can take to create a safe environment for your patrons. Contact the Lifesaving Society for assistance to understand, interpret and implement the recommendations in the Standards. The Society contact information is located on the inside back cover.

FOREWORD

Faced with the potential for multi-million dollar lawsuits, public wading pool owners are becoming more proactive in assessing and managing risk in their aquatic environment. The Lifesaving Society believes that many incidents are foreseeable and therefore preventable.

As the lifeguarding experts, the Lifesaving Society is the authority in aquatic standards and safety. The Society establishes standards for public safety and consults on aquatic safety issues. The Society sets public safety standards for the aquatic industry such as the owners and operators of swimming pools, interprets safety standards for aquatic facility owners, advises government and serves as an expert witness in legal cases involving aquatic safety issues. The Lifesaving Society *Public Wading Pool Safety Standards* present the Lifesaving Society standards and recommendations for the safe operation of public wading pools.

The Lifesaving Society has developed and published safety standards for aquatic activities and facilities throughout our history. The Lifesaving Society Safety Standards are compilations of aquatic safety guidance from Lifesaving Society research that has been published over many years in a variety of Society manuals and publications as well as external publications. The scope of Society research into public safety and risk management practices includes research and real operational experience from across Canada and around the world. In turn, the Society's expertise is shared internationally with the Royal Life Saving Society Branches throughout the Commonwealth and with the International Life Saving Federation.

The Lifesaving Society *Public Wading Pool Safety Standards* assembles the standards published in these many different sources into a single document to make this information available and readily accessible to the public wading pool owner. This document provides owners of public wading pools a set of clear recommendations from the Lifesaving Society for the safe operation of their pool. In addition to the Society's recommendations, this document also refers public wading pool owners to other codes, regulations, statutes or standards that should be considered when developing safe operating practices for their wading pool. This document does not in any way replace or supersede current legislation. Owners and users must obey all provincial and municipal legislation, regulations and by-laws specific to their public wading pool and community.

The Lifesaving Society recognizes that the recommendations provided in the Lifesaving Society *Public Wading Pool Safety Standards* are not the only solutions that public wading pool owners and operators can use to provide a safe environment for their customers. The Lifesaving Society also recognizes that each public wading pool has unique features. No single document can

address every situation and need. In situations where owners implement alternative safety measures, the Society recommends that they thoroughly evaluate and document these measures. Contact the Lifesaving Society for assistance to understand, interpret and implement the recommendations in the Standards.

THE DROWNING PROBLEM

Drowning is the second leading cause of preventable death in Canada amongst those under 5 years. Preventable, because these deaths don't have to happen.

Drowning fatalities in children under the age of 5 are more than double that of any other age group. A major contributing factor in the deaths of children is the lack of adult supervision. For children under 5 years old, 85% were unsupervised when they drowned. For children age 5-12, 61% were unsupervised and in the age group from 13-15, 34% were unsupervised. These are alarming statistics, and speak volumes to the need for supervision of your wading pool.

Children & Your Wading Pool

The patrons of public wading pools are primarily very young children and their caregivers. Toddlers and preschoolers are naturally curious about water. They are persistent and ingenious in finding a way to get to it. Tragedy can strike quickly. Ten seconds of unsupervised play or exploration can result in a drowning. That's all the time it takes! It also only takes a few inches of water for a drowning to occur.

To prevent such tragedies, you must provide supervision when the wading pool is open to the public and prevent children from entering the water when the wading pool is unsupervised. This is your responsibility as a wading pool owner/operator. The best protection is to insist that all young children in the wading pool be directly supervised within arm's reach distance by a caregiver. The message to your patrons should be: *If you're not within arm's reach, you've gone too far.* The role of the wading pool attendant should be to provide an additional level of supervision and educate caregivers about their supervision and drowning prevention roles. School age children also need Water Smart® education about safe ways to enjoy the pool. Requiring a buddy system for these children is a good way to provide another layer of supervision.

Most young children can't swim or they lack the strength to keep themselves afloat very long, or to pull themselves from the water. They drown when they trip and fall while playing in shallow water, when falling from the pool edge such as when reaching to retrieve a toy, or running around the deck near the edge. In shallow water, very young children who fall often cannot stand up without assistance.

A caregiver or wading pool attendant can't rely on a cry for help to alert them, or splashing or waving. Usually, there are none of these sounds or reactions: the child slips quietly under the surface and may not be seen under the water. It's usually much later when someone notices the youngster missing. But even mere seconds can be too late.

Shallow Water

Lifesaving Society Drowning Research has found that shallow water presents risks that the wading pool owner/operator should consider. For shallow water (less than 2.5m deep), the only safe entry method is feet first - this applies to all wading pools. Head first entries such as dives or a forward roll present the risk of the patron hitting the bottom head-first and injuring their spine from the impact. The consequences can be tragic including paralysis and possibly death.

Another possible source of injury in shallow water is roughness or “horseplay” around the pool. Dangerous play includes throwing or pushing a person into the water, diving off shoulders, or being “boosted” into the air by another swimmer. Dangerous play can result in a range of injuries which include possible spinal injuries, injuries resulting from collisions with the pool bottom or sides as well as injuries resulting from collisions between bathers. Patrons need Water Smart® education and rules about safe ways to enter, play and enjoy the wading pool.

Alcohol

Alcoholic beverages are involved in approximately one-third (36%) of all Canadian preventable water-related deaths. The high incidence of drowning and alcohol is an important factor for the wading pool owner/operator to keep in mind. Many Canadian adults do not understand the increased risk from mixing aquatic activities and alcohol consumption. This can result in adults who have consumed alcohol arriving at the wading pool with or without young children and expecting to be permitted to use the wading pool.

The effects of alcohol can include impaired judgement and physical coordination. Impaired caregivers may not supervise their children, recognize hazards and may engage in dangerous behavior with their children. In addition, they are at increased risk of injury as a result of their physical impairment. Wading pool staff should be prepared to prevent entry to the wading pool if a patron is under the influence.

DEFINITIONS

- q **Wading Pool** means any structure, basin or tank, containing an artificially created pool of water that is 600 millimetres or less in depth throughout and is used for swimming, bathing, wading or other similar purposes.
- q **Water Spray Park** means an artificially constructed depression or basin into which water is sprayed but not allowed to accumulate in the bottom.
- q **Facility Manager** means a person designated by the facility owner as being responsible for the management and operation of the facility. The facility manager can also be the owner.
- q **Owner** means the person or organization who is the owner of a public wading pool.
- q **Operator** means a person designated by the owner as being responsible for the operation of the wading pool.
- q **Swimmer or Bather** means a person participating in any recreational activity in, on or around the water.
- q **Patron** means any person using the aquatic facility. This includes swimmers or bathers plus any spectators or other persons on the deck, general area or in other areas such as changerooms within the aquatic facility.
- q **Wading Pool Attendant** means a person appointed by the owner or operator to maintain supervision over the swimmers while they are in the wading pool, on deck or within the general area.
- q **Deck** means the area immediately surrounding the pool.
- q **General Area** means an area adjacent to the deck within the pool enclosure that is used for activities other than swimming.
- q **Current Award** means a training certification which is valid for a specified period from the date of certification or examination. The length of time a certificate is current is set by the certifying body and/or government regulation. For example, Lifesaving Standard First Aid award is current for 3 years from the date of certification.
- q **Supervision** is the deliberate and conscious act of observing facility users to ensure the wading pool attendant is immediately aware of any incident or behavior which may prove life-threatening or injurious.

RISK MANAGEMENT

Who is Responsible?

Ultimately, the owner of a wading pool is responsible for the safe operation of the wading pool. Usually the responsibility for the operation of the wading pool is delegated to a Facility Manager or Operator. This responsibility may be further delegated to individuals such as Wading Pool Attendants who may be left in charge of the facility. When the owner or manager is not present, the in-charge person, regardless of title, assumes full responsibility for the safe operation of the pool.

The Lifesaving Society *Public Wading Pool Safety Standards* outlines the Lifesaving Society's recommendations for minimum safety requirements for wading pools. Safety shall be the primary concern of pool owners and managers. All wading pool staff are encouraged to go beyond the minimum requirements in their mandate to provide a safe environment. This means practising risk management: working diligently to prevent emergencies, but also responding to them quickly and efficiently if they do happen.

Risk Management Process

Risk Management is an ongoing process that is used to identify risks associated with your wading pool and activities in the pool and take measures to reduce risk and prevent incidents and injuries. The process includes the following steps:

1. Identify risks
2. Evaluate: Why are they happening? What is the source?
3. Develop controls and strategies to minimize or eliminate risks including education of facility users regarding safe behaviors
4. Implement
5. Monitor efforts and evaluate results

Preventing Incidents

All wading pool personnel must view incident prevention as an integral part of their jobs. An attitude needs to be fostered and encouraged among staff that they are hired to anticipate incidents and take steps to prevent them, as well as respond to emergencies. Ensuring all safety supervision staff meet the minimum certification and training requirements is also critical.

Establishing safety systems are important steps in prevention. One way of doing this is to keep accurate incident records. Tracking incidents and analysing these records to develop strategies to reduce risk is critical to risk management.

Facility analysis is an important means to reduce risk. Is equipment in good working order? Are there danger zones where incidents tend to occur or may occur? Are there problems created by structures or design? How secure is the area? Are the fencing and locking systems adequate? Can these be changed or the potential risk be reduced?

PERSONNEL AND SUPERVISION

Supervision

A wading pool attendant shall be on duty and on deck at all times when the pool area is open for use. Wading pool attendants are first and foremost responsible for patron safety.

Wading Pool Attendant Qualifications

Wading Pool Attendant - Required minimum qualifications

- Minimum age 16;
- Hold a current Standard First Aid (Aquatic Emergency Care Award or Lifesaving Standard First Aid recommended);
- Holding a Lifesaving Society Wading Pool Attendant certification is recommended;
- Be trained in the facility safety systems and emergency procedures.

Orientation Training

All new or returning wading pool attendants shall receive orientation training before assuming their supervision duties. This training should include:

- Introduction to fellow staff members;
- Exploration of attendant job description and responsibilities;
- Introduction to and evaluation of hazards and risks in the facility, and a review of facility rules and policies concerning them
- Review of personnel policies and procedures;
- Specific job-related training required to familiarize staff with the facility's programs, activities, operation and maintenance, and policies and procedures concerning supplies and equipment;
- Specific training in the facility's procedures for supervision, emergency procedures, safety systems and pool operation ;
- Specific training in public relations and effectively dealing with the patrons.

Inservice Training

Wading pool attendants and owners/operators must recognize the need for periodic review of procedures and skills assessment. Given that most wading pools are seasonal and only open for approximately 2 months a year, wading pool staff should participate in at least 1 inservice training session that may include:

- Evaluation and practice of emergency procedures designed specifically for the wading pool;
- Review and practice of supervision, recognition and rescue skills;
- Practice use of safety equipment;
- Review of supervision policies and procedures including number of attendants per patron and guidelines for patron and staff conduct;
- Review and practice of first aid skills including use of first aid equipment and supplies;
- Practice of public relations and effectively dealing with the patrons;
- WHMIS training appropriate to the materials and equipment they may be expected to use.

Aquatic Facility Supervision Standard

Every owner/operator of a wading pool shall establish an Aquatic Facility Supervision Standard. This standard shall define the minimum requirements for wading pool attendants who are responsible for the supervision of patrons. The standard should include:

- Skill standards appropriate for the facility;
- Minimum vision and hearing standards;
- Practices to evaluate if conditions such as injuries, illness and pregnancy prevent the staff person from meeting the standard;
- Minimum training to effectively perform all required supervision duties;
- A process to identify and replace on duty any staff member who is not able to meet the standard at any time she is scheduled to work in a supervision role.

Two parties have a responsibility to ensure that staff are able to meet their obligations - the owner/operator and the wading pool attendant. The owner/operator is required to take reasonable steps to ensure that attendants are able to perform to the Aquatic Facility Supervision Standard when employed in a supervision role. The wading pool attendant also has a personal responsibility to be able to meet the required Aquatic Facility Supervision Standard at anytime that she is on duty. It also requires that anytime she is not able to meet the standard (ie. due to illness or injury) she must inform her employer. A wading pool attendant who is unable to meet the minimum standard should not work in a supervision role until she is able meet the standard.

Supervision Systems

Every wading pool shall establish systems to provide effective supervision of all patrons and activities within the pool area. When open to the public, the primary duty of the wading pool attendant is supervision. All attendants must be able to continuously scan their area of responsibility. Short interruptions which are designed to prevent injury (ie. safety education) are acceptable. All efforts must be made to minimize distractions which may interfere with this duty. Short conversations between attendants and patrons are necessary for public education about safe use of the facility and are key injury prevention practices. Longer conversations are not recommended because they interfere with effective supervision. Assigning duties such as pool maintenance which may distract the attendant is not recommended.

The supervision positions or walking patrols of attendants shall be designed to eliminate blind spots in the wading pool area and allow for quick intervention and education with the patrons. It must be possible for the attendant to observe all bathers in the wading pool area. Positioning may need to be adjusted accordingly throughout the day to effectively deal with glare. A system should be implemented to provide regular observation of deck and surrounding enclosed areas.

Supervision of patrons is a vigilance task. Every effort must be made to keep the attendant alert and focused on supervision. The Lifesaving Society also recommends that attendants be provided with a break from the supervision task at regular intervals throughout their working shifts.

Attendant Identification

All attendants shall wear a uniform which permits them to be easily and quickly identified. The purposes of the attendant uniform is to make the attendant stand out so that they are readily distinguished from bathers and spectators, and can be quickly contacted in case of an emergency or when assistance is required.

Pool Operator

At least one individual, who at any given time may have responsibility for the care and control of a wading pool shall hold a certificate confirming that individual's successful completion of an approved swimming pool operator's training program. This person is defined as the Pool Operator. The pool operator is not required to be present in the facility during the hours of operation.

Wading pool attendants should be trained in basic pool operation procedures, and know how to empty, clean and fill the wading pool, as well as perform water tests during the operation of the pool. They also need to know how to deal with a fecal contamination incident should one occur.

Staff Manual

Every wading pool should develop a Staff Manual. This manual must be readily available to the pool staff. The Lifesaving Society recommends that all staff be provided with a personal copy of the Staff Manual. The intent of this manual is to function as a training and reference resource for the pool staff and owner/operator. The suggested content should include:

- All facility supervision procedures and requirements;
- All specific operating and emergency procedures that the staff member is required to know and be able to do;
- Relevant employment policies and procedures as well as any specific employment standards such as the Aquatic Facility Supervision Standard.

The Staff Manual may be a subset of the more comprehensive Facility Operating Manual that documents all operating practices for the facility.

Staff Communication

A system shall be implemented which provides for regular communication and updates for wading pool staff. The primary purpose is to communicate information that is useful in maintaining the safety of wading pool patrons and staff. Examples of this information includes:

- Reporting of equipment in need of repair and steps taken to protect users;
- Notice of equipment closure or repair.

One method commonly used to achieve this purpose is a staff log book. Each staff member is required to review the log book prior to starting a shift.

Health and Safety *Barrier Devices*

All pool staff shall have access to barrier devices to prevent cross contamination in a first aid situation. At minimum this shall include a rescue breathing barrier device with a one-way valve and disposable surgical gloves. Because wading pool attendants may be required to initiate first aid before the facility first aid kit arrives, the Lifesaving Society recommends that all attendants have barrier devices that can be carried with them while on duty.

Sun Protection

All attendants working outdoors shall have effective protection from sun and weather. Protection from the sun may include protective clothing, SPF 30 sunscreen and/or shade structures at the attendant stations.

EMERGENCY PROCEDURES

All wading pool owners/operators shall develop and document a set of emergency procedures appropriate to the needs of the pool. The emergency procedures may be a combination of general and specialized emergency procedures designed to address incidents or injuries that may be expected to occur at the wading pool. It is realistic to develop these procedures with the assumption that only one trained staff person will be present during an emergency.

General Procedures

These are generalized procedures which can be adapted to a variety of incidents or injuries.

- **Minor Emergencies** - adequate wading pool coverage can be maintained at all times by one or more wading pool attendant (eg. simple first aid, public relations)
- **Major Emergencies** - adequate wading pool coverage cannot be maintained and pool must be cleared until wading pool attendant attention can be directed back to pool supervision (eg. serious first aid, a fight, etc)

An excellent reference for developing emergency procedures for your wading pool is the Lifesaving Society lifeguarding manual – *Alert, lifeguarding in action*. This manual also provides excellent guidance for many of the safety practices that are required for a safe environment.

Specialized Procedures

Specialized procedures are designed to address very specific situations that may require very clear, detailed procedures. These situations may include events which threaten multiple individuals such as a fire or a gas leak. Other situations such as the treatment of possible spinal injuries benefit from developing very clear and detailed procedures which can be practised and developed to a competent and consistent level of skill. Facility management and staff should analyse the types of situations that would benefit from specialized procedures and develop the appropriate emergency procedures.

Examples of common specialized emergency procedures include:

- Evacuation procedures for fire or chemical exposure such as chlorine gas leak;
- Lost child;
- Storms and lightning;
- Spinal injury procedures;
- Entrapment in suction devices in wading pool or associated play toys that may be present in a water spray park.

Emergency procedures should include and document at least these elements:

- Emergency signals;
- Procedures for clearing the wading pool;
- Roles of all responding wading pool attendants;
- Roles of bystanders;
- Procedures for contacting emergency services;
- Defined focal points;
- Emergency equipment required;
- Procedures for notifying any other persons (ie. management, a victim's family members, other persons that might be affected by the incident);
- Practices for dealing with media inquiries.

Required Emergency Equipment

Every Public Wading Pool should have the following emergency equipment available and appropriately located for use in an emergency:

- A dedicated emergency telephone with posted emergency numbers.
- A Number 2 first aid kit. Extra supplies for high use items such as bandages should be available.
- A kit with a rescue breathing barrier device with a one-way valve and disposable surgical gloves for every wading pool attendant on duty.
- A designated first aid area.
- A spineboard with an effective immobilization system is recommended if there is a reasonable risk of a diving injury.

Emergency Signals

Every Public Wading Pool shall develop and implement a communication system to provide for the following communication requirements:

- Attendant to patron - including education about safe use, an emergency stop signal and an emergency clear signal
- Attendant to attendant - including directing attendant attention to an incident near another attendant, recruiting assistance for an emergency
- Attendant to emergency services - including a clear description of all information required for EMS response

Contacting Emergency Services

Every wading pool shall have an emergency telephone which is easily accessible from the deck and directly connected to emergency services or the telephone utility. "Directly connected" is interpreted as guaranteed direct access. Wading pools that use phones not directly connected to an emergency service shall provide a phone line that guarantees immediate access to the emergency operator. A shared phone line is not acceptable if it allows the phone line to be busy when required for an outgoing emergency call. The telephone shall be able to work in the event of a power failure.

Emergency contact telephone numbers shall be posted by the emergency telephone.

It is recommended that a script for the emergency call be posted beside the emergency phone. This is particularly important if the emergency procedures include the use of bystanders to contact emergency services. The script should be designed to provide the information required to direct the request for emergency assistance. This may include information such as: pool address, phone number, a prompt to describe the nature of the emergency, the location for emergency access, etc.

Critical Incident Stress

In the event of a serious injury incident, all persons involved in the incident such as rescuers or bystanders should be provided access to Critical Incident Stress Management (CISM) education and support. The Lifesaving Society can provide contacts for CISM support. Local EMS and victim services organizations can also provide local contact information for Critical Incident Stress Management services in your community.

SAFETY SYSTEMS

Public wading pool owners/operators shall develop and document a set of safety systems appropriate to the needs of the pool. Safety systems are the day to day actions and policies established to prevent incidents and injuries. They include such things as wading pool rules and how they are to be implemented, procedures for preparing the wading pool for bathers and procedures for controlling access to the wading pool. Policies should be set to ensure safety, and all patrons should be educated on these policies and required to obey them. Patrons should be encouraged to adopt a drowning prevention focus. Safety systems are an important part of minimizing risk and preventing injury.

Facility Operating Manual

Every wading pool shall develop and maintain a comprehensive Facility Operating Manual. This manual should document all facility operating standards, expectations, policies and procedures required for the safe operation of the wading pool. The purpose of the manual is to serve as a training and reference resource for the wading pool staff. It should be stored in a location which is accessible to all staff. The Staff Manual will usually be composed of a portion of the information included in the more comprehensive Facility Operating Manual.

Pool Safety Rules

Every public wading pool owner/operator shall develop and apply a set of rules to guide safe use of the pool and its equipment. These rules are intended to control the risks associated with the use of a wading pool while also facilitating the enjoyment of the aquatic recreation experience. The rules shall be documented in the Staff Manual and the Facility Operating Manual. Staff should carefully analyse the pool and equipment to identify risks which may be inherent in their design and construction. Patterns of patron use will also provide useful data. The results of this analysis should be used to develop the safety rules. These rules should be communicated to patrons through the use of signs, announcements and other forms of public education.

Some examples of rules which should be posted are:

- Suggested minimum age and requirements for supervision of children (i.e. children under the age of 7 should be accompanied “Within Arms Reach” by a responsible person 14 years of age or older);
- Notification of medical conditions that may affect bather safety; ie. seizure disorder (i.e. please alert the attendant of any medical conditions you may have);
- Anyone not toilet trained must wear protective water resistant swimwear to prevent fouling and contamination of the pool;
- Please walk;

- Foot first entry only into the pool (a picture of no diving);
- Play safe. Don't push others into the pool;
- No glass containers are allowed in the pool or on the deck.

Swimming Pool Regulation Requirements

The Swimming Pool Regulation requires that operators regulate behavior which could result in disease transmission. This includes excluding persons with communicable diseases, preventing polluting of the pool water, etc. For more information refer to the Swimming Pool Regulation of the Alberta Public Health Act or contact the Lifesaving Society.

Signage

Signs serve two functions in a Public Wading Pool:

- Inform customers about the rules for safe use of the facility;
- Warn customers of hazards and ways to avoid these hazards.

Signs with general safety rules should be posted in a conspicuous location in the wading pool area. Where possible, utilize signs which use pictures to convey the message. Use of universal symbols provides instant recognition and avoids confusion if readers, such as young children, cannot read or do not read English.

Standards for Signage

Color:

- Red slash - the activity is prohibited
- Yellow background - warning or caution
- Green Border - activity is permitted

Rules: clearly indicate which activities are prohibited or permitted. Including the reason for the rule increases compliance.

Duty to Warn: identify hazards, the risk or consequence of the hazard and how to avoid it.

Location: should be posted at the hazard and where possible, at the access points or routes.

Signs Required by Health Act

The Swimming Pool Regulation lists requirements for “health protection” signs that must be posted in the facility.

No Diving Signs

Signs providing clear direction that diving is prohibited shall be posted. It must be clear that only foot first entry is permitted.

Other Signs

Signage should be considered in appropriate locations that inform customers about emergency signals and admission rules. Wading pool management and staff should regularly evaluate whether other signage is required or if the existing signs are effective and take appropriate follow-up measures. This can be determined by analyzing incidents at the facility and determining if more signs would assist to prevent incidents.

Note: The Lifesaving Society can provide assistance to locate suppliers of pool signs.

Pool Access Control and Admission Policies

Every public wading pool owner/operator shall implement a system to control access to the pool and surrounding deck and pool areas. This includes providing effective locks, key control procedures and policies for access control. The pool area shall be locked and not accessible at all times when effective supervision is not available.

Bather Load

The total number of bathers shall not exceed the maximum bather load for the pool as defined in the Swimming Pool Regulation. Bathers refers to people on the deck and in the water. Patrons in the general area (such as areas set aside for loungers or for watching swimmers) are not considered bathers. However, if these patrons cross over from the general area onto the deck or into the pool, then they become part of the bather load.

Number of Attendants

An attendant shall be on duty on deck in order to open the wading pool for use. The Lifesaving Society recommends that the pool be staffed accordingly for expected bather load, pool size and/or configuration of the pool or play park, equipment that is present and any danger areas that may be present.

Attendants should regularly (eg. every 30 minutes) count the number of bathers in the wading pool. It is recommended that these counts be documented and used to regularly evaluate attendant requirements.

Incident Tracking and Analysis

The primary task of wading pool attendants is the prevention of injuries. Effective prevention requires an understanding of what types of injuries may occur and the circumstances under which the injuries may result. Every public wading pool shall institute a system to document and analyse all injuries and rescues that occur in the pool. This data will be used to evaluate and where appropriate modify emergency procedures, safety systems, staff training or any other practices that might benefit from this analysis.

POOL OPERATION

Water Quality

Maintaining excellent water quality is a critical component of operating a safe environment for your patrons. The water quality shall protect the health and safety of the patrons by protecting them from disease transmission and maintaining balanced water to prevent injury from chemicals in the water. Good water quality also contributes to protecting the pool and its equipment and the swimmer's enjoyment of the pool.

Disinfection and Water Balance

Effective pool disinfection and water balance shall be maintained at all times that the wading pool is open to the public. These procedures shall meet or exceed the minimum standards required in the Swimming Pool Regulation. The Regulation also stipulates the minimum water testing requirements.

Because wading pools have a small water volume and are used by very young children, the Lifesaving Society recommends maintaining higher levels of chlorine disinfectant than the minimums used for swimming pools. The Society recommends maintaining a minimum Free Available Chlorine (FAC) of 3.0 – 5.0 ppm at all times. Frequent testing is required to verify that the required FAC and pH levels are maintained - every 4 hours or more frequently depending on bather load.

Pool Water Clarity

The wading pool water clarity or the visibility of the pool bottom shall be evaluated regularly throughout each day that the pool is in operation. Good bottom visibility is imperative for safe supervision and cannot be compromised. The wading pool attendant must be able to clearly see the bottom of the pool and the pattern of the main drain at the deepest part of the wading pool. If there is any doubt about water clarity, the wading pool shall be closed until the problem is corrected.

Any debris, glass, leaves or other materials that could pollute the water or that could be hazardous to the pool users should be removed from the pool bottom and areas surrounding the wading pool and disposed of safely.

Pool Fouling

Every wading pool shall develop a procedure to deal with an accidental fecal release. The owner/operator shall follow the requirements of the *Provincial Fecal Contamination Management Policy* published by Alberta Health and Wellness. A procedure shall also be developed for a pool fouling incident which may involve the release of vomit, blood or other organic, potentially infective material into the wading pool water. This procedure shall be able to provide for the removal of the contaminating material and provide effective disinfection of the wading pool.

Measures shall be implemented which minimize the probability of a pool fouling incident. Children who have not been toilet trained shall be required to wear a cloth or pool diaper covered by an impermeable pant with closures that seal around the leg and waist openings. Persons with diarrhea, or who have had diarrhea within the past 2 weeks, shall be directed to stay out of the pool until they are well.

Pool fouling is a serious concern. Incidents involving E Coli, shigellosis and cryptosporidium have been traced to exposure in Public Aquatic Facilities.

Mechanical and Chemical Maintenance

All facility mechanical systems and chemical handling shall be maintained and operated in a manner which protects the pool users and staff. The standards for these practices shall be documented and followed by all pool staff. Reference sources for these standards include:

- Manufacturer directions and Material Safety Data Sheets (MSDS);
- WHMIS regulations and training;
- Swimming Pool Regulation and Standards;
- Pool operator manuals and training programs;
- Occupational Health and Safety regulations.

Inspections and Testing

All areas of the public wading pool and pool equipment shall be inspected and/or tested on a regular schedule. The schedule should be designed for the needs of the specific equipment or area of the facility. This may range from a simple visual inspection to a process to test the safe operation of the equipment. Tools such as checklists should be used to document the inspection results and insure that the inspection process is consistent and comprehensive. Any deficiencies identified must be documented and recommendations for corrective measures identified.

Deficiencies which affect the safe operation of the pool or equipment should be corrected immediately. If this is not possible, effective steps shall be taken to protect customers and staff. In some cases it may be necessary to close the pool or equipment until it can be returned to a safe condition.

Recreational Equipment

All recreational equipment (eg. Toys, small slides which sit in the water) should be inspected regularly before public access is permitted. If it is used heavily, this may need to be daily. Equipment in unsafe condition shall be closed until repairs can be completed and evaluated.

Emergency Equipment

Facility emergency equipment shall be inspected daily. All equipment shall be maintained in a state of readiness. Any deficient equipment shall be repaired or replaced immediately.

Suction Hazards

All pool water outlet covers shall be inspected regularly (eg. monthly) when the pool is in operation. If any of the pool's water outlet covers are loose or missing the pool shall be closed until the cover is repaired or replaced.

Note: An outlet is an opening in the wading pool that can generate suction (eg. main drain, vacuum fitting or skimmers). Loose or missing outlet covers have caused fatalities and serious injuries in Aquatic Facilities. Regular inspection of these outlets must be established.

Facility staff must not underestimate the power or danger of suction. Outlet cover inspections should be undertaken with extreme caution to ensure staff safety. The inspection procedure should include:

- Shutting down the filter system and ensuring that:
 - There is no suction in the system;
 - The system is locked down or supervised to ensure that it is not turned on during the inspection;
- A diagram of the wading pool depicting the outlet covers will guide the inspection. Each outlet cover should be assigned a number to help the accurate recording of inspection results;
- A second person should be present as an emergency back-up during the inspection;
- Record the inspection results and any remedial action required and completed.

Note: Some pool circulation systems include pool skimmers with equalizer fittings located in the pool wall below water level. All equalizer fittings must be permanently plugged and disabled so that there is no possibility that these fittings could create a suction hazard.

Any wading pool with only one drain shall have an anti-entrapment device installed and maintained. Suction from the main drain in pools with only one drain has caused drownings and serious injury in the past. An anti-entrapment device can prevent this.

GFI – Ground Fault Interrupters

Any electrical outlets that can be touched by a wet bather or staff person should be protected with a ground fault interrupter. All GFIs shall be tested at least monthly. Any GFI that fails the test shall be disabled and the circuit it controls removed from use until the GFI can be repaired or replaced.

SAFE ENVIRONMENT

The public wading pool owner/operator shall be familiar with all codes and regulations that apply to the operation of a public wading pool. This includes the building code which sets minimum construction standards for a public wading pool. Where applicable relevant information from these standards should be incorporated into the policies and procedures of the facility and documented in the Facility Operating Manual.

Facility Access Control

Every public wading pool shall implement a system to control access to the wading pool and the pool equipment. When the wading pool is not supervised it shall be drained and empty of water or securely locked and enclosed by a fence and gate system that complies with the Alberta Building Code 1997 requirements for a public swimming pool. In summary, the building code requires that the wading pool be enclosed by a barrier at least 2.0m in height that prevents unauthorized access to the wading pool. The wading pool gate shall be at least 2.0m in height and equipped with a self closing, self latching, lockable mechanism that is located at least 1.5m above ground level. Consult the building code for the specific design requirements.

Hazardous areas such as mechanical rooms and chemical storage areas shall be locked at all times that the facility is open or accessible to the public.

The Fence

The following recommendations will enhance the effectiveness of the fence to protect the public:

- q Required minimum height is 2.0 m.
- q Construct the fence to be difficult to climb.
- q Put all framing braces on the inside of the fence.
- q Use vertical, not horizontal, slats.
- q Construct the fence so a child cannot slip through it, yet you can still see through the slats.
- q Maximum space between slats: (vertical bars) 10cm or 4 inches (although “tighter” spacing is recommended).
- q Maximum space between chain link fencing as per local by-laws.
- q Construct the fence with continuous footings, or ensure it is imbedded into the earth to a depth of at least 15cm or 6 inches. Continuous footings or an imbedded fence are recommended to prevent children from pushing or digging their way under the bottom of the fence. In some situations, a dog has dug a hole large enough for a child to gain access to the pool area.
- q Do not keep any structure beside or near the fence that would allow a person to climb over the fence and gain access to the pool area. Examples include trees, hedges, and lawn furniture.

Gates Construct the gate to include features that lessen the risk of children entering the wading pool area when unsupervised.

- q Incorporate all the features recommended for the fence.
- q Is the same height as the fence.
- q Always keep the gate locked when no supervisor is present.
- q Ensure the gate latch is equipped with a self-latching device on the inside of the gate, located at least 1.5 m above ground level.

Recreational Equipment

Recreational equipment such as toys, slides, etc. shall be used/installed and maintained in accordance with the manufacturers' instructions. These installations should be analysed to identify any hazards or risks and steps taken to control these risks.

Water Spray Parks

Water spray parks may be part of the amenities included with a wading pool. The Swimming Pool Regulation has specific requirements for water spray parks in relation to their operation and maintenance. There is merit in considering the benefits of staffing at these parks. The water spray park should be analysed to identify possible hazards and measures taken to eliminate the hazards.

RESOURCES

Lifesaving Society Resources

Many resources are available from the Lifesaving Society to assist aquatic facility owners and operators to evaluate the safety needs of their facility and to develop practices for the safe operation of the facility. These resources include information about safety standards, training programs, resource manuals, sample practices, forms and much more. Visit the *Safety Management* section of the Lifesaving Society website, www.lifesaving.org, for the most complete and current list and links to resources from the Society. You can also contact the Lifesaving Society with questions or requests for assistance.

Lifesaving Society standards, programs, products and services include:

- *Lifesaving Society Safety Standards*: designed to assist aquatic facility owners and operators in providing a safe aquatic environment. Includes standards for public facilities, semipublic pools, wading pools, beaches and private pools.
- *Lifesaving Society Reference Manuals*: examples include Canadian Lifesaving Manual (definitive lifesaving training reference) and Alert: lifeguarding in action (the lifeguard training reference).
- *Lifesaving Society Training Programs*: Swim for Life Learn to Swim Program – the national standard for swimming; Canadian Lifesaving Program – lifesaving training including the Bronze Cross award; National Lifeguard Program – training awards for lifeguards at pools, waterparks, waterfronts and surf beaches; Lifesaving First Aid – includes CPR, Lifesaving Emergency and Standard First Aid, Aquatic Emergency Care, Oxygen Administration; and more.
- *Lifesaving Society Position Statements*: formal Society Positions on a variety of topics such as use of defibrillators by lifeguards and sun protection in aquatic environments.
- *Risk Management Articles*: used to educate facility owners about public safety issues and the measures they can take to create safe environments and enhance public safety. Sample topics include: pool color and design, inservice training, facility lighting, lifeguard positioning, suction hazards, and pool fouling.
- *Drowning Research*: Drowning Reports – analysis of the Society’s annual drowning research.
- *Public Education*: Water Smart® messages about choices to reduce risks in, on and around the water; Within Arm’s Reach video, brochure and posters; Sudden Impact video, and much more.
- Sample forms and tools for developing risk management practices for your facility. Examples include first aid forms, major incident documentation, EMS telephone scripts, Critical Incident Stress Management, suggested contents for Aquatic Staff Manual.
- *Aquatic Safety Management Services*: Lifesaving Society services to help you operate a safe aquatic environment. Includes aquatic safety audits, facility

design and operation consulting, safety standards and expert witness services.

- *Safety Equipment and Training products*: includes spineboards and head immobilizers, barrier devices such as pocket masks, whistles, rescue tubes, lifeguard clothing, Actar CPR training manikins and much more.

Note: Visit the Lifesaving Society website to find new resources, products and services that are added and updated regularly on the website.

Government Resources

The Lifesaving Society *Public Wading Pool Safety Standards* summarizes standards, guidelines and recommendations from the Lifesaving Society intended to provide guidance for the safe operation of public wading pools. This guidance is not intended to replace requirements that may be included in statutes, regulations or guidelines of the Government. Public wading pool owners should also be aware of these government requirements. Information about these requirements and links to government websites are included in the *Safety Management* section of the Lifesaving Society website: www.lifesaving.org.

Relevant Provincial Government statutes, regulations or guidelines may include:

- Alberta Building Code
- Fire Regulations
- WHMIS
- Swimming Pool Regulation of the Public Health Act
- Employment Standards Regulation
- Occupational Health and Safety Code
- Occupiers Liability Act
- First Aid Regulation
- Working Alone Safely
- Transportation of Dangerous Goods

Other Relevant Resources

Resources from other organizations such as the Centres for Disease Control (CDC) and FINA are valuable resources to assist aquatic facility owners to evaluate the safety needs of their facilities and to develop practices for the safe operation of their aquatic facilities. Information about these organizations and links to their websites are included in the *Safety Management* section of the Lifesaving Society website: www.lifesaving.org.

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