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The Lifeguarding Experts
Les experts en surveillance aquatique

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Safety Standards for Canadian Swimming Pools and Waterfronts Waterfront Standard

Inflatable Waterpark Standard

Standard

Every owner and operator of a waterfront with an inflatable waterpark shall ensure that they are providing a safe aquatic environment for their patrons. The *Inflatable Waterpark Standards* as outlined in Appendix A offers recommendations for minimum standards of operation for inflatable waterparks where the general public is admitted for aquatic activity.

Definitions

Anchors: devices that are ISO approved and that secure the inflatable waterpark to the designated area.

Assistant Lifeguard: a person appointed by the owner or operator to assist a National Lifeguard in the supervision of bather safety at a swimming pool or waterfront.

Attendant: a person designated by the owner or operator to provide support in the operation of the inflatable waterpark such as fitting PFD's, controlling admittance, conducting safety briefings, etc.

Designated Inflatable Area: the section of the waterfront facility marked and designated exclusively for inflatable waterpark activity; free of hazards that pose a risk to the safety of patrons; in which boating is prohibited except for safety supervision or emergency response.

Head Lifeguard (in-charge guard, site manager, designated supervisor): a person who is on site in charge of the lifeguard operations.

Inflatable Waterpark: a combination of temporary inflated play structures designed to be used by bathers in waterfront settings. Inflatable waterparks may be an inclusive collection of parts, self-contained, temporary, large play structure, commercial not public, zoned off or separate, multiple users, controlled access, supervised, anchored, controlled access, defined footprint, climbing, running, jumping, floating, play structure. The components meet or exceed ISO 25649-1:2017 Floating Leisure Articles for use on and in the water.

Last Seen Marker: A small buoy with a line and anchor that is used to mark the location where a person was last seen in the water.

Lifeguard: a person with a current National Lifeguard certification appointed by the owner or operator to supervise bather safety while bathers are on the deck or beach, or in the pool or body of water.

Operator: the trained individual designated by the owner to be responsible for the day to day operation of an aquatic facility.

Owner: the person or corporation who is the owner of an aquatic facility.

PFD: Transport Canada approved personal floatation device or lifejacket.

Safety Plan: a comprehensive emergency procedure plan specific to the designated inflatable waterpark.

Supervisor: an individual appointed by the owner/operator who is responsible for the overall operation of the waterpark including safety supervision by lifeguards and assistant lifeguards.

Supervised Waterfront: the designated area of a waterfront where certified staff provide safety supervision as part of the operations.

Rationale

The *Inflatable Waterpark Standards* explains the Society's position on inflatable waterpark issues and informs owners and operators about safety expectations as a preventive measure before water-related incidents occur.

The standards offer recommendations for minimum standards of operation for inflatable waterparks where the general public is admitted for aquatic activity. The standards do not replace or supersede current legislation. Owners and operators must obey all legislation and by-laws specific to their inflatable waterpark and operations.

Implementation

- The Standards as outlined in Appendix A have been established for waterfront settings although many of the standards may apply if these devices are in place in public swimming pools.
- Each inflatable waterpark has unique features, and no single document can adequately address every situation and need. The minimum standards of the *Inflatable Waterpark Standards* may not meet the safety requirements of all facilities. Owners and operators should customize safety efforts, remembering always that patron well-being is paramount. The Lifesaving Society commends owners and operators who maintain a higher standard than outlined in the standards.

In some cases, a recommendation may be impractical or impossible to implement at a particular facility due to an unusual geographical feature, or for other reasons. Owners and operators should apply good judgment in fulfilling the *intent* of these standards.

- Staffing:
 - Head lifeguards or designated supervisors should hold a current National Lifeguard certification and have a minimum of 250 hours of inflatable waterpark lifeguarding experience.
 - Lifeguards should be at least 16 years of age; hold a current National Lifeguard and Standard First Aid certificate; and have training in inflatable waterpark supervision

- and emergency procedures relevant to the specific facility and prior to the first shift of lifeguarding.
- Attendants and assistant lifeguards should be at least 15 years of age; hold a current Lifesaving Society Bronze Cross and Emergency First aid or higher; and have training in inflatable waterpark operation and emergency procedures relevant to the specific facility and prior to the first shift of work.
 - Owners and operators are referred to Lifesaving Society *Alert: Lifeguarding in Action* and inflatable manufacturers guidelines for further guidance on how to improve the safety of their aquatic facilities.

References

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Approval

- Approved by the Lifesaving Society Canada Board of Directors on 21 March 2022.

Disclaimer

Lifesaving Society Canada's National Safety Standards are developed using Coroners' recommendations, the latest evidence-based research, and reflect the aquatics industry's best practices at the time the publication was approved.

The purpose of these standards is to encourage swimming pool, waterpark and waterfront owners, managers, operators and regulators to adopt these standards, in order to prevent drownings in aquatic environments.

Lifesaving Society Canada's National Safety Standards do not replace or supersede local, provincial/territorial or federal legislation or regulations, but they are considered the standard to which aquatic facility operators should work towards, in order to enhance safety within their operations and to prevent drowning.

APPENDIX A

Inflatable Waterpark Standards

OPERATIONS

- Every owner and operator has a responsibility to maintain the inflatable waterpark and designated swimming and wading area in a safe condition. Inspections should be completed on a regular basis to ensure these standards remain in place. In particular:

Water Depth

- Ensure there is always sufficient water depths around and beneath the inflatable structure. The International Organization for Standardization (ISO) 25649 Section 4.5.8 on Floating Leisure Articles should be used as a minimum standard for these depths. It provides guidance on minimum water depths. The following formula $(x+y/2)$ allows owner/operators to calculate minimum water depths. In addition, manufactures may provide additional guidance on these water depths. Sample calculation (x is the height of the person using the inflatable and y is the height of the inflatable).

Admissions

- Procedures should be established so that admissions are controlled and all bathers are greeted by staff who would ensure the following:
 - A safety briefing is conducted outlining the inflatable waterpark rules
 - A PFD fitting takes place and then is secured to the bather. All users must wear a properly fitted PFD while on or in the inflatable waterpark area.
 - In addition, at regular intervals, safety checks should be completed ex. clearing of the inflatable waterpark, buddy checks, etc.
 - An admission standard applied (e.g. swim test administered).
- An admission standard should be established for the inflatable waterpark. This standard should be based on the equipment in the waterpark. The standard is:
 - Admittance policy concerning children under 10 years of age: The Society's drowning research shows that unattended youth are at a high risk of drowning during non-instructional swim settings. The Society recommends that all inflatable waterparks adopt a policy that children under 10 years of age not be admitted to the inflatable waterpark unaccompanied, unless they are able to pass the facility swimming test.
 - Children six to nine years of age who are unable to pass the facility swimming test must be accompanied by a parent or guardian who is at least 12 years of age and responsible for their direct supervision, with a maximum of eight bathers to one parent/guardian (8:1).
 - Children under six years of age may not be admitted to the inflatable waterpark unless they are accompanied by a parent or guardian who is responsible for their direct supervision, with a maximum of two children for each parent or guardian.
 - Parents/guardians are responsible for the children in their care while in the facility and must directly supervise the children at all times.
 - Operators should establish an administrative process that identifies children that have successfully or unsuccessfully met the requirements of this standard.
- Signage should be posted at all entrances to the inflatable waterpark stating:
 - The status of recreational water quality, the agency responsible for testing, and a contact number to report any health issues or to get information.

- Inflatable waterpark rules
- Hours of operation
- Location of park
- Maximum number of bathers
- Location of emergency telephone
- Admission policy
- Medical conditions policy
- Operational Procedures included but not limited to:
 - Minimum operating standards which include: winds, wave heights, currents, and water temperatures
 - Daily operation checklists
 - Opening checks - air pressure, connections, cleaning, anchors, ropes, designated area buoys , PFDs first aid kit, other operational equipment such as boats, paddleboards, etc.
 - Closing checks- cleaning of inflatables, restrict access to waterpark PFDs, inflatable surface tears, anchoring, etc.
 - Animal management (e.g. dogs allowed or not allowed on beach, ~~wildlife~~)
 - Installation instructions including anchoring specific apparatus for bottom substrata
 - Maintenance
 - Admissions standard
 - Inflatable waterpark bather load
 - After hours security
 - A Safety Plan should be created to address a variety of procedures that should be followed including:
 - Severe weather procedures including lightning procedures
 - Emergency procedures
 - Reporting- incident reports maintained for a minimum of one year. From a legal standpoint, records should be kept at least the length of time within which individuals may file a suit against the inflatable waterpark owner.
- The designated inflatable waterpark area should be identified with high visibility markers at appropriate intervals from each piece
- Entrance to the inflatable waterpark or approach in water defined with buoys from shore to inflatable
- The following equipment is available and present at all times, in good working order, checked daily for breakdowns or faults, and easily accessible in case of an emergency:
 - One buoyant rescue aid attached to a shoulder loop with a 6 mm line at least 1.6 m in length for each lifeguard and attendant on duty
 - Binoculars
 - A last seen marker
 - Megaphone
 - 25 m of buoyant rope
 - Masks, snorkels and fins available for searches
 - A sufficient number of rescue craft, paddleboards (rescue boards), etc. when any part of the inflatable waterpark area is more than 25 m from shore and has a water depth greater than 1.5 m or the supervised area is greater than 50 m from shore.
 - A rescue craft when any of the lifeguarded area is more than 75 m from shore.

- A spineboard with at least three straps and a headpiece
 - First aid kits with supplies in sufficient quantities to meet the needs of the facility and the needs of individual lifeguard personnel that include but are not limited to:
 - incident report forms
 - pencil or pen and note pad
 - watch or other mechanism for timing
 - a sharps container for needles
 - a current copy of a standard first aid manual
 - safety pins
 - adhesive dressings individually wrapped
 - sterile gauze pads, each 75 millimetres square
 - 50 millimetre gauze bandages and 100 millimetre gauze bandages
 - sterile surgical pads suitable for pressure dressings individually wrapped
 - triangular bandages
 - rolls of splint padding
 - at least one roll-up splint
 - at least one pair of scissors
 - non-permeable gloves
 - resuscitation pocket masks
 - Incident reports are provided and retained. Reports include maps of the area to record locations of incidents and emergencies so that patterns may be established and preventive action taken.
 - A cellular phone (inside a waterproof bag) is recommended where telephones lines are not available.
 - Additional emergency equipment, particularly oxygen, and automated external defibrillators (AEDs) are highly recommended.
 - A public address system for larger inflatable waterparks or those situated greater than 100 m. from shore. For small inflatable waterparks, this may be a power megaphone.
- To ensure the ongoing safety of the inflatable waterpark, a third-party testing and approval process should be in place for the inflatable waterpark. This inspection, testing and approval process can be completed by the Lifesaving Society. All inflatable waterpark safety plans should be:
- clearly written as defined by the Lifesaving Society
 - reviewed on an annual basis to ensure it is up-to-date and complete
 - practiced at staff training sessions held throughout the duration of the lifeguard's active employment each season.
- Lifeguard positioning, rotation and zone charts should be completed for the inflatable waterpark. These should be posted in the staff office and reviewed by all staff during staff in service training sessions. Revisions should be made when changes are made to the inflatable waterpark.
- In cases where extreme weather requires that the waterpark components be temporarily deflated and stored (open water on large lakes or oceans) or left in place during the extreme weather conditions, a detailed inspection utilizing a pre-determined (manufacturer's) checklist and criteria must be completed before re-opening the waterpark to the public.

- ❑ A system (e.g., flag system) of communicating conditions to patrons is desirable. Such a system may indicate that it is safe to swim or to warn patrons of an increased risk or danger eg. rough water, adverse weather conditions, or high levels of bacteria.

SAFETY SUPERVISION

- ❑ Every owner and operator has a responsibility to maintain the inflatable waterpark, designated swimming and wading area in a safe condition.
- ❑ Lifeguard supervision is required on all inflatable waterparks when open for public use. When establishing lifeguard placement, the following should be considered:

- Rotation of lifeguards to maintain vigilance and allow breaks from direct supervision
- Certain apparatus may require direct supervision
- An adequate number of lifeguards to safely supervise the inflatable waterpark area are on duty at any one time. The number of lifeguards required changes according to the needs and conditions of each inflatable waterpark facility.

The Lifesaving Society can provide assistance in determining appropriate supervision standards for inflatable waterparks. At no time are there fewer than two lifeguards on duty in the inflatable waterpark area. This includes the Head Lifeguard. This recommendation represents a minimum standard. A greater number of lifeguards is desirable, and in some situations, required to safely supervise the inflatable waterpark area. All staff must be given an orientation and trained in emergency procedures.

- Factors affecting numbers of lifeguards required include:
 - Size of inflatable waterpark
 - Bather load and concentration of bather load
 - Potential dangers such as drop-offs
 - Water and weather conditions
 - Experience and training of lifeguards
 - Age and ability of swimmers
 - Width of swimming area
- Larger, more complex inflatable waterpark facilities require more lifeguards, often with increased or specialized training. So too will facilities with larger bather loads or concentrations, or patron activities that place increased demands on lifeguards.
- Every lifeguard is trained in inflatable waterpark supervision and emergency procedures relevant to the specific facility prior to his or her first shift.

EMERGENCY PROCEDURES

- ❑ Emergency procedures should be developed and included in the inflatable waterpark operations manual for a variety of situations that could arise. These procedures should be site specific and developed for all weather, bather loads, etc. These procedures should be practiced during in service training sessions. Specifically, procedures should include:
 - Missing person
 - Evacuation
 - Sun safety
 - Water search
 - Fouling
 - Minor and major incidents
 - Removal and transport of victims from the inflatable waterpark to shore

- ❑ Locations for the first aid station, AED and emergency telephone should be determined and indicated by signage so the public are aware of their location in an emergency situation.
- ❑ Clearly written emergency procedures (as defined by the Society) are posted and accessible to staff. Emergency procedures are regularly reviewed and practiced at staff training sessions held throughout the duration of the lifeguard's active employment each season.

COMMUNICATIONS

- ❑ Lifeguards must be able to communicate with each other, the public and with emergency services. To ensure efficient and effective communication, consider the following:
 - A telephone should be provided at each inflatable waterpark site. This will allow for direct communication with EMS during an emergency situation. Cellular telephones may be used as an alternative in cases where a landline telephone is not available.
 - Communication between lifeguards and other staff can be done with megaphones or two-way radios. On going communication can also be done through a series of hand signals, which should be defined and practiced prior to the season.
- ❑ Swimming areas and beaches intended for use by patrons are clearly designated through signs, buoy lines, buoy or swim markers or a combination of these.
- ❑ Designated swimming areas are clearly visible and recognized from the water by users of personal watercraft and other boaters.
- ❑ Swimming areas and beaches are free from hazards such as broken glass, hidden underwater dangers, etc.
- ❑ Hours of operation are advertised.
- ❑ Bathers with serious medical conditions signage.
- ❑ Personal protection from the sun is encouraged.
- ❑ The use of pictograms is encouraged.
- ❑ Inflatable Waterpark safety rules should include:
 - PFD must be worn at all times when on the inflatable waterpark
 - no swimming under or diving off the inflatable waterpark
 - no use of drugs or alcohol
 - no glass or sharp objects on the inflatables
 - no horseplay

PERSONNEL

- ❑ Every owner and operator has a responsibility to maintain the inflatable waterpark, beach, designated swimming and wading areas in a safe condition.
- ❑ All personnel receive training on inflatable waterpark use and every lifeguard is trained in inflatable waterpark supervision and emergency procedures relevant to the specific facility prior to his or her first shift.
- ❑ Lifeguards are attired in such a way as to be readily identifiable. It is recommended that the international standard of red on yellow be used. This clothing shall not restrict physical movement or emergency response time. UV protection, polarized sunglasses, a brimmed hat and whistle are also included as part of the lifeguard's personal equipment, as well as protective gloves and pocket face masks.

- ❑ Clearly written emergency procedures (as defined by the Lifesaving Society) are provided and posted.
- ❑ All personnel who may use a rescue craft should possess training and certification in rescue craft use (PCO) (if applicable).
- ❑ Lifeguards have current staff certifications that are on file at the facility.
- ❑ A minimum of two lifeguards should be stationed on the inflatable waterpark when open for public use.
- ❑ Non lifeguarding personnel (e.g. attendants, ticket takers, PFD fitters) should be:
 - readily identifiable as staff but not lifeguards.
 - possess a First Aid certification
 - be provided with the equipment required to provide care to the level of their training.
 - be provided with training in emergency procedures.
- ❑ The designated supervisor or head lifeguard should be on site at all times when the inflatable waterpark is open for public use.
- ❑ Every lifeguard should be equipped with a buoyant rescue aid attached to a shoulder loop with a six-millimeter line at least 1.6 m in length and a fanny pack which contains at a minimum a mask and gloves.