

Operating Procedures for Non-Regulated Recreational Water Facilities Guidance Document

**This document is in support of the Safe
Water Program, Recreational Water
Protocol under the Ontario Public Health
Standards**

Environmental Health Section

Public Health Protection and Prevention Branch

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Table of Contents

Preamble	1
1. PURPOSE.....	1
2. RISK TO THE PUBLIC	2
3. GENERAL GUIDANCE.....	3
3.1 Structural Design.....	3
3.2 Water Quality.....	3
3.3 Safety and Emergency Equipment.....	4
3.4 Supervision.....	4
4. A GUIDE TO SAFE OPERATION OF A WADING POOL	5
5. A GUIDE TO SAFE OPERATION OF A SPRAY PAD /SPLASH PAD.....	12
APPENDIX A – FIRST AID KITS.....	17
APPENDIX B – REFERENCES/RESOURCES.....	18

This guidance document is intended to support boards of health in inspecting non-regulated recreational water facilities. This document is not intended to provide legal advice or to be a substitute for the professional judgment of medical officers of health or local board of health staff. Board of health staff should consult with legal counsel as appropriate.

Preamble

The Operating Procedures for Non-Regulated Recreational Water Facilities Guidance Document is designed to assist local boards of health with promoting the safe operation and use of non-regulated recreational water facilities through their inspection activities. Non-regulated recreational water facilities covered under this guidance document include public wading pools, spray pads/splash pads, and water slide receiving basins*. The document provides recommendations on minimum standards to protect public health at these facilities.

The guidance document is organized in three sections:

- Sections 1 and 2 of the document describe the purpose and context for inspecting non-regulated recreational facilities;
- Section 3 provides general inspection guidance related to the construction and operation of non-regulated recreational water facilities to consider when performing inspections;
- Sections 4 and 5 provide specific guidance to consider when inspecting wading pools or spray/ splash pads; and
- Additional information and related resources are included in the appendices (e.g., recommended contents for a first aid kit).

In the development of this guidance document, the Public Pools Regulation (O. Reg. 565) and Public Spas Regulation (O. Reg. 428/05) were reviewed with the intent of aligning recommendations with existing standards. As a result, recommendations for inspecting non-regulated recreational water facilities align with the Public Spas Regulation, wherever possible, based on the smaller water volume and other similar characteristics in the water facilities covered herein.

1 Purpose

This document is referenced in the Recreational Water Protocol (referred to herein as ‘the Protocol’), under the Safe Water Program of the Ontario Public Health Standards. The purpose of this document is to provide guidance to local boards of health and assist public health inspectors in conducting risk assessments and inspections related to non-regulated recreational water facilities as required by the Protocol.

* Water Slides and their Receiving Basins

A water slide and/or its receiving basin may fall under the oversight of provincial regulations.

- Water slides that have a height of more than 2 metres, a slope of 6 degrees or greater, or allow for a passenger speed of greater than 2 metres per second would fall under Ontario Regulation 221/01 (Amusement Devices) under the *Technical Standards and Safety Act*, 2000. Water slide owners/operators should be directed to contact the Technical Standards and Safety Authority (www.tssa.org) about any requirements under this regulation.
- A water slide receiving basin that also serves as a swimming pool and is greater than 0.75 metres in depth would fall under Ontario Regulation 565 (Public Pools). Oversight of the slide would remain under O. Reg. 221/01 and TSSA.
- Water slides that are 2 metres or less in height and gradual sloped water slides (less than 6 degrees), and receiving basins that are 0.75 metres or less may be unregulated.

Local boards of health should consider applying the recommendations, within this document, for the operation of a wading pool to waterslides that are not regulated.

Specifically, under section 1 c) of the Protocol, boards of health are required to:

- i) Inspect public wading pools and splash pads/spray pads at least two times per year and no less than once every three months while operating. In conducting these inspections, the board of health shall refer to the most current version of the *Operating Procedures for Non-Regulated Recreational Water Facilities Guidance Document*, for information;
- ii) Inspect other non-regulated recreational water facilities (e.g., water slide receiving basins) at least two times per year and no less than once every three months while operating to monitor the safety of these facilities; and
- iii) Conduct additional inspections of non-regulated recreational water facilities as necessary to follow up on observations from previous inspection(s); to investigate complaints and/or reports of illness or injury; and/or to monitor the safety of the facilities.

It is recognized that there are currently no specific regulatory requirements under the *Health Protection and Promotion Act* (HPPA) pertaining to the operation of non-regulated recreational water facilities. This guidance document has been prepared to assist in the prevention and reduction of water-borne illness and injury related to these facilities. It outlines factors for public health inspectors to consider in carrying out their inspection and risk assessment functions and provides general guidance concerning the operation, safety, and maintenance of recreational water facilities.

While educational approaches are generally employed to achieve and maintain compliance with recommendations, public health inspectors may act, by way of section 13 of the HPPA, to address significant issues deemed to be *health hazards*.

2 Risk to the Public

Risks associated with using non-regulated recreational water facilities include injuries related to the physical structure, operation of the facility, and waterborne illness risks related to exposure to contaminated water (e.g., *Cryptosporidium*).

Note that the design, construction, installation, use, maintenance, repair, service and operation of some water slides is governed by the Amusement Devices Regulation (O. Reg. 221/01) under the *Technical Standards and Safety Act, 2000*⁸. Water slide owners/operators should be advised to contact the Technical Standards and Safety Authority regarding compliance with this regulation (www.tssa.org).

To reduce the risk of injury, illness or death to facility patrons, the owner/operator of a non-regulated recreational water facility should construct, operate, and maintain the facility in a safe manner in accordance with applicable legislation and guidance material, including this document.

To prevent the possibility of the spread of illness through contaminated water, the owner/operator of a recreational water facility should:

- Maintain the recreational water facility in a clean and sanitary state;
- Maintain the water chemistry in a manner that reduces the potential for the spread of a communicable disease; and
- Respond appropriately to adverse incidents that may affect the health of facility users.

3 General Guidance

The following recommendations relate to the general construction and operation of non-regulated recreational water facilities and should be considered by public health inspectors when performing an inspection and assessment. Sections 4 and 5 of this document provide specific information for consideration when inspecting and assessing public wading pools, spray pads/splash pads and water slide receiving basins.

3.1 Structural Design

All non-regulated recreational water facilities should be constructed and maintained so as to prevent injury, illness or death:

- Natural and/or artificial lighting should be adequate to ensure that all areas within the water (including the main drain/grates) are clearly visible from a viewing point at or near the water edge outside of the water containing structure;
- All surfaces are maintained free of potential hazards;
- The facility and water is free from visible matter that may be hazardous to the health or safety of those using the facility;
- Patrons can enter and exit the water area safely (i.e., non-slip surfaces and steps, ladders and handrails provided and secure; markings and adequate lighting);
- Surfaces are designed to drain properly to prevent water pooling and reduce the risk of persons slipping and falling;
- All water suction outlets or drains within the water-bearing structure are fitted with anti-entrapment coverings or are anti-entrapment by design, and where appropriate, the suction systems are equipped with a vacuum relief mechanism or other engineered system;
- Where any facility component is powered by electricity, ground fault circuit interrupters are functioning (owners/operators should be advised to contact the Electrical Safety Authority regarding compliance with the Electrical Code www.esasafe.com);
- Where provided, the water heater temperature can be limited to a maximum of 40 degrees Celsius; and

When not open for use, the facility is made inaccessible to unauthorized personnel or the water is drained..

3.2 Water Quality

A public health inspector should identify the water source and check whether the source is free of potential disease-causing organisms or harmful chemicals. Also, check that:

- Water clarity is sufficient to observe the bottom of all areas of the water containing structure from a viewing point at or near the water edge, including a clear view of the main drain/grates;

- ☑ Where water flow to drainage is restricted to provide spray/splash pad activity, the design of the restriction and basin should be such that the water is not retained for more than 15 minutes unless provided with additional disinfection treatment;
- ☑ Where the water is not re-circulated and held in a basin for more than 15 minutes, it is treated and discharged directly to waste within a minimum of 4 hours;
- ☑ Where water is re-circulated, the water is both filtered and disinfected in a manner that would prevent the potential spread of micro-organisms that may cause illness;
- ☑ The water within any holding basin is maintained at a sufficient disinfectant residual to prevent the potential spread of micro-organisms that may cause illness;
- ☑ The water chemistry is maintained in a manner that allows for effective disinfection and comfort to bathers and the water chemistry is monitored by using an appropriate test kit;
- ☑ The owner/operator maintains procedures and trains facility staff in responding to emergency incidents (e.g., fouling of water by fecal matter).

3.3 Safety and Emergency Equipment

A public health inspector should check whether the facility is equipped with appropriate safety and emergency equipment to respond to the hazards associated with the use of the facility. Safety and emergency equipment may include a first aid kit, emergency telephone, reaching pole, buoyant throwing aid, spine board and blanket. This list provides some examples; however, other safety equipment may be appropriate depending on the facility's use and complexity.

3.4 Supervision

A public health inspector should check whether the owner/operator provides adequate supervision to effectively operate and maintain the facility, and supervise user safety.

Note: Supervision for a non-regulated recreational water facility that is located within the same enclosure or near a Public Pool should not detract from the supervision required for the public pool under O. Reg. 565 (Public Pools).

4 A Guide to the Safe Operation of a Wading Pool

The following information will assist owner/operators of wading pools to carry out their responsibilities to ensure the safe use, operation and maintenance of their recreational water facility. Additional action should be taken on the part of the owner/operator above and beyond these recommendations as necessary. Where a health hazard is identified, a public health inspector may take action to mitigate the health hazard in accordance with section 13 of the HPPA.

General Safety Principles

To reduce the risk of injury or illness to wading pool users, especially where young children are present, the facility should be maintained in a clean and sanitary condition.

The wading pool should be supervised at all times when it is open for use either by the owner/operator, pool staff or through parental/guardian supervision of individual users.

When the wading pool is not open for use the owner/operator should ensure that:

- All water is removed and the drains remain open to prevent collection of rainwater; and/or
- The wading pool is securely enclosed by a fence and locked gate so as to restrict access by anyone other than authorized personnel (recommended minimum fence height is 1.22 metres (4 feet) or in accordance with local bylaws).

Pre-opening Checks

Prior to opening each day or after a period of non-use (e.g., following lunch/service breaks) the operator should inspect the following items:

- Water is clear and free of visible matter, i.e., all areas within the water (including the main drain/grates) are clearly visible from a viewing point at or near the water edge outside of the water containing structure;
- Water chemistry is within recommended levels (see *Water Treatment*);
- Water level is appropriate to the pool design;
- Pool area and surfaces are in clean and sanitary condition and free from obstacles or items that may cause injury;
- All gratings or drain covers are securely fastened to all pipelines;
- Fittings that terminate in the pool are flush with the edges or are free of sharp edges;
- Pool equipment such as the filter and chemical treatment systems are operational; and
- Where provided, check:
 - Operation of vacuum relief mechanism,
 - Operation of ground fault circuit interrupters,
 - Function of emergency phone,
 - Placement of emergency equipment, and
 - Placement of signage.

Construction

All wading pools should be designed and constructed in a manner that ensures safety of the users. For specific requirements prior to any construction or alterations, owners/operators should be advised to contact the local building, municipal bylaw departments, the Electrical Safety Authority (www.esasafe.com) and/or Technical Standards and Safety Authority (www.tssa.org) as applicable.

The following specifications should be considered when designing and constructing a wading pool:

- All water used in the facility comes from a source that is free of potential disease-causing organisms or harmful chemicals or is treated to ensure it is free of potential disease-causing organisms or harmful chemicals;
- A maximum water depth of 75 centimeters;
- A minimum water depth of at least 15 centimeters except for areas with sloped entry (if less than 15 centimetres in depth, consideration should be given to whether facility should be treated as a splash pad);
- A bottom slope of less than 8 percent (8 cm down for every 100 cm length);
- Handrails where steps are provided;
- Non-slip surfaces or treads on the steps;
- Steps clearly marked with a band of contrasting colour applied along the entire juncture of the side and top of the edges of each step;
- A hard surface apron or deck that surrounds the wading pool that is,
 - at least one metre wide,
 - sloped to direct water away from the wading pool; and
 - covered with a non-slip surface that may be readily cleaned and sanitized;
- A hose bib and hose for water is available and located to allow the operator to clean the pool and a 1.8m area immediately surrounding the deck;
- A water meter is provided that is capable of recording the volume of make-up water that is added;
- Back-flow prevention devices on water supply lines and drains, where appropriate;
- A water recirculation and treatment system that recirculates the water throughout the pool to continuously filter the water and provides for the addition of chemicals to maintain suitable levels of disinfectant; and
- Gratings or covers that are securely fastened to all pipelines and fittings that terminate in the pool (suction outlet and drain covers should be secured with corrosion resistant bolts/screws).
- All water suction outlets or drains within the water-bearing structure are fitted with anti-entrapment coverings or are anti-entrapment by design, and where appropriate, the suction systems are equipped with a vacuum relief mechanism or other engineered system;

- Where electricity is used, ground fault circuit interrupters are functioning (owners/operators should be advised to contact the Electrical Safety Authority regarding compliance with the Electrical Code (www.esasafe.com); and
- Where provided, the water heater temperature can be limited to a maximum of 40 degrees Celsius.

Safe Operation

Supervision

Provide supervision whenever the wading pool contains water and is accessible for use.

The wading pool supervisor should be:

- At least 14 years of age;
- Familiar with the hazards associated with a wading pool;
- The holder of a standard level first aid certificate with an issue date that is not more than three years old;
- Be attired so as to be readily identified by the users; and
- Be trained in the wading pool's operational and emergency procedures (the owner/operator should ensure appropriate training of staff; wading pool attendant training is available through water safety associations).

Supervision responsibilities should include:

- Determining appropriate use of facility in accordance with the setting, number and capability of users in the wading pool at any one time, such as,
 - use of water play toys/equipment; and
 - parental or guardian supervision of individual users (e.g., children aged 6 years or under, or physically/developmentally challenged persons)
- Continuous visual observation of user safety; and
- Discontinuing use of the facility when water chemistry is not within recommended levels, when clarity is poor, or a health or safety concern is identified, such as, inclement weather, electrical concern, or the water becomes contaminated (e.g., fouling of the pool water).

Safety

A first aid kit containing, at minimum, the requirements under O. Reg. 428/05 (Public Spas), is available in a place conveniently located for emergency use (see Appendix A).

An emergency telephone at the wading pool should be strongly recommended in order to contact emergency services:

- The emergency telephone should be clearly identified with a notice.
- Notices should also be posted in other parts of the facility to easily identify the location of the emergency telephone (i.e., at minimum, a notice posted near the entrance to the wading pool and at least one location at the furthest point of the facility).

- Notices may be easily identified by using letters at least 25 millimetres high with at least five millimeters stroke width.

Emergency procedures for the wading pool should be in a place conveniently located for emergency use and:

- List the names, telephone numbers and addresses of persons who are available for resuscitation, medical aid and fire services; and
- List the full name and address of the wading pool location, nearest main intersection, and the emergency telephone number.

Safety tips

- ✓ The first aid certificate should be a standard level first aid certificate issued by any of the agencies recognized by the Workplace Safety and Insurance Act, 1997 - R.R.O. 1990, Reg. 1101.
- ✓ Where playground equipment is installed in the wading pool, it should be appropriate for the water depth. Wading pool owners/operators should follow the manufacturer standards and contact the Canadian Standards Association regarding compliance with the CAN/CSA-z614-2008 version *Children's Playspaces and Equipment* playground safety standards (www.csa.ca),
- ✓ The first-aid kit should be equivalent to a first aid kit as described in the Public Spas Regulation (O .Reg. 428/05).
- ✓ If the wading pool facility does not have phone capabilities consideration should be given to providing an emergency phone, cellular phone or radio device to the person supervising the wading pool.
- ✓ Training courses for supervisors and operators of recreational water facilities are available through various recreational water safety agencies.

Water treatment

Owners and operators should make sure that the water in the wading pool is treated with chlorine, a chlorine compound or a bromine compound at all times during the daily use.

- If using chlorine, maintain a level of free available chlorine equal to or greater than 5 milligrams per litre in the pool water at all times.
- If using bromine, maintain a level of bromine equal to or greater than 5 milligrams per litre in the pool water at all times.
- Maintain the pH level of the pool water between 7.2 and 7.8.
- Where possible, maintain the total alkalinity in the pool water at a minimum of 80 milligrams per litre
- If using a cyanuric acid stabilizer*, maintain level of stabilizer below 150 mg/l.
**Note, cyanurate stabilizer is not added to a wading pool or to the immediate surrounding of a wading pool that is partially or totally covered.*

- An adequate water quality test kit should be available at the wading pool to accurately test the chemical parameters in the wading pool water.
- Owner/operator should be trained in proper handling and application of water treatment chemicals.

Testing frequency

Testing for chlorine, bromine and pH should be done one-half hour prior to wading pool opening and at least once each hour while the wading pool is open for use.

Where the level of disinfectant or pH is controlled by an automatic device, the operation of the device should be checked by doing a manual test of the disinfectant or pH in the wading pool at least once each day.

Where the disinfection level is controlled by an automatic sensing device, the Oxidation Reduction Potential value should be above 700 mV.

Preventing stagnant water in wading pools

If the wading pool is not drained daily, add at least 30 litres of fresh water for each user of the pool that day.

In addition, consider draining and refilling a wading pool that holds less than 4000 litres in accordance with the following formula,

$$\frac{\text{Total number of litres of water in the wading pool}}{\text{Total number of users daily, multiplied by 10}} = \text{number of days to drain and refill}$$

<i>Example</i>	$\frac{3400 \text{ litres}}{200}$	=	<i>drain and refill every 17 days</i>
$20 \text{ user/day} \times 10$			

Handling of chemicals

Store chemicals so that they are only accessible to the operator.

Safety tips

- ✓ When using chemicals, always add the chemical to the water.
- ✓ Vacate the wading pool of users before adding chemicals and prevent entry into the water until the chemicals are safely dissolved.
- ✓ Persons responsible for handling chemicals should be appropriately trained in the safe storage and handling of chemicals.
- ✓ Provide appropriate personal protective equipment for handling of chemicals (refer to *Occupational Health and Safety Act* requirements).

Useful Tools

Maintain a log book

Every operator should maintain and sign daily records to document:

- The free available chlorine and total chlorine residuals, or where bromine compound is used, the total bromine residuals;
- The pH values;
- Results of the daily manual test to verify proper operation of any automatic sensing device (disinfectant and pH);
- The time of day the emergency phone was tested (where a phone is available);
- The total number of wading pool users admitted to the pool each day;
- Where cyanurate stabilization is used, record the concentration of cyanuric acid;
- The amount of make-up water added;
- Where provided, results of the inspection of the vacuum relief mechanism;
- Where provided, note if ground fault circuit interrupter(s) functional;
- Any wading pool fouling, including time and details of draining, cleaning and refilling;
- Any emergencies, rescues, or breakdowns of equipment that have occurred; and
- The daily record should be retained for a minimum of one year.

Use of notices

Owners/operators should consider posting signs that set out health and safety rules for wading pool users. A sample sign is set out below. For the safety of their patrons, owners/operators may include other rules that may be appropriate for a particular facility.

“WADING POOL RULES”

- Parents or guardians should be with within arms reach of their child(ren) at all times when the child(ren) are in the wading pool.
- Children should be appropriately attired for their age and continence ability to prevent fouling of the 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.

Response to fouling of a wading pool

If the pool has been contaminated due to a bowel movement, vomiting, or gross fouling,

- Ensure all users leave the wading pool;
- Drain the wading pool;
- Clean and disinfect the wading pool and any equipment used;
- Refill the wading pool;
- Adjust the disinfectant level and pH; and
- Check that the water is clear and chemistry is within recommended levels prior to reopening the wading pool.

Safety tip

- ✓ Obtain a current copy of the Centers for Disease Control and Prevention document "Fecal Incident Response Recommendations for Pool Staff" from:
http://www.cdc.gov/healthyswimming/pdf/Fecal_Incident_Response_Recommendations_for_Pool_Staff.pdf
- ✓ Where washroom facilities are available, operators may wish to identify the location of the washrooms.

5 A Guide to Safe Operation of Spray Pad/Splash Pads

The following information will assist owner/operators of spray/splash pads, to carry out their responsibilities of ensuring the safe use, operation and maintenance of recreational water facilities. Additional action should be taken on the part of the owner/operator above and beyond these recommendations as necessary. Where a health hazard is identified, a public health inspector may take action to mitigate the health hazard in accordance with section 13 of the HPPA.

General Safety Principle

To reduce the risk of injury, illness or death to spray pad/splash pad users, especially where young children are present, the facility should be operated and maintained in a safe and sanitary manner.

Pre-opening Checks

Prior to opening each day or after a period of non-use, the operator should inspect the following items:

- Spray/splash pad area is clean and free from obstacles or items that may cause injury, illness or death;
- Water chemistry is adequate and treatment and recirculation equipment are operational, where applicable;
- All gratings or drain covers are securely fastened to all pipelines and fittings that terminate in the spray/splash pad;
- Fittings that terminate in the pool are flush with the edges or are free of sharp edges; and
- All ground fault interrupters are operational, where provided.

Construction

All spray/splash pads should be designed and constructed in a manner that ensures safety of the users. For specific requirements regarding construction details, prior to any construction or alterations, owners/operators should be advised to contact the local municipal building bylaw department(s), the Electrical Safety Authority (www.esasafe.com) and/or Technical Standards and Safety Authority (www.tssa.org) as applicable.

The following specifications should be considered when designing and constructing a spray pad/splash pad:

- Play surfaces and equipment designed and maintained so as to prevent injury;
- No play surface should slope more than 8 percent (8 cm down for every 100 cm length);
- Play surfaces are non-slip and of a material that would reduce the risk of falls;
- Spray pad/splash pad surfaces slope to drain;
- Perimeter of pad is designed to prevent water entering from the surrounding area;
- Spray pad/splash pad drains so as to exclude the possibility of stagnant water;

- Where water is allowed to be retained for a short period of time, the depth of the retained water basin should not exceed 15 centimetres;
- Surfaces can be readily cleaned and sanitized;
- Back-flow preventers on water supply lines;
- Gratings or covers are securely fastened to all pipelines and fittings that terminate in the pool (suction outlet and drain covers should be secured with corrosion resistant bolts/screws);
- All water suction outlets or drains within the water-bearing structure are fitted with anti-entrapment coverings or are anti-entrapment by design, and where appropriate, the suction systems are equipped with a vacuum relief mechanism or another engineered system; and
- Where electricity is used, ground fault circuit interrupters are functioning (owners/operators should be advised to contact the Electrical Safety Authority regarding compliance with the Electrical Code www.esasafe.com).

Specific construction considerations regarding fresh or re-circulated water include:

- All water used in the facility comes from a source that is free of potential disease-causing organisms or harmful chemicals or is treated prior to being circulated to ensure it is free of potential disease-causing organisms or harmful chemicals;
- If recirculation is provided, the water leaving the spray/splash pad should pass through the following treatment steps:
 1. Filter;
 2. Chemically disinfect with either chlorine or bromine;
 3. Retain in a storage tank for an appropriate period of time to allow effective disinfection to occur; and
 4. Treat with ultraviolet light (UV) capable of rendering cysts and oocysts inactive before water enters the spray/splash pads. This step is considered the primary disinfection activity to ensure recreational water is free of microorganisms.

Note, turbidity monitoring and control should be in place to ensure that the ultra violet treatment device is effective. Ultra violet 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.

Safety tip

- ✓ Where playground equipment is installed in the spray/splash pad, it should be appropriate for the water depth. Spray/splash pad owners/operators should follow the manufacturer standards and contact the Canadian Standards Association regarding compliance with the CAN/CSA-z614-2008 *Children's Playspaces and Equipment* playground safety standards (www.csa.ca).

Safe Operation

Supervision

Provide sufficient supervision of the facility for the purposes of ensuring safe use and response to adverse events.

Use of the spray/splash pad should be discontinued when there is contamination of the water or a health or safety concern is identified.

Safety tips

- ✓ Facility staff should be encouraged to obtain first aid certificates and provide for emergency use, a first aid kit containing, at a minimum, the requirements under the under O. Reg. 428/05 (Public Spas), (see Appendix A)
- ✓ If the spray/splash pad facility does not have phone capabilities, it is recommended that the person supervising the spray/splash pad have an emergency phone, cellular phone or radio device to obtain emergency assistance.

Prevent spray/splash pad water from becoming stagnant

- For non-recirculating systems, drain and disinfect the spray/splash pad surface between daily uses.
- If recirculation is provided, it should be maintained with adequate disinfectant 24 hours per day unless the water is drained; and
- Continually refresh the water by discharging 15% of the water directly to waste and adding 15% fresh water whenever water is being circulated to the spray/splash pad.

Chemical handling

Store chemicals so that they are only accessible to the operator.

Safety tips

- ✓ When using chemicals to clean and disinfect, always add the chemical to the water.
- ✓ Vacate the spay/splash pad of users before adding chemicals and prevent entry into the water until the chemicals are safely dissolved.
- ✓ Persons responsible for handling chemicals should be appropriately trained in the safe storage and handling of the chemicals and the operation of the spray/splash pad.
- ✓ Provide appropriate safety clothing or equipment for handling any chemicals (refer to *Occupational Health and Safety Act* requirements).

Water treatment

The water used in a spray/splash pad should be obtained from a source that is free of potential disease-causing organisms or harmful chemicals or be treated to ensure it is free of potential disease-causing organisms or harmful chemicals, and,

- Be used once and drained away from the play area, OR
- Be provided with appropriate filtration and disinfection (see *Specific construction considerations regarding fresh or re-circulated water on page 15 above*).

Testing frequency

To ensure that the filtration and disinfection treatment systems are operating in accordance with their design, the system should be checked daily one-half hour prior to opening and every two hours during operation.

Where the level of disinfectant or pH is controlled by an automatic device, the operation of the device should be checked by doing a manual test of the disinfectant or pH in the water at least once a day.

Where the disinfection level is controlled by an automatic sensing device, the Oxidation Reduction Potential value should be above 700 mV.

Useful Tools

Maintain a log book

It is recommended that the operator keep daily records of the following:

- Filtration, disinfection and addition of fresh water;
- Total number of users each day;
- Emergencies, rescues, or breakdowns of equipment that have occurred; and
- The daily record should be retained for a minimum of one year.

Use of Notices

Owners/operators should consider posting signs that set out health and safety rules for spray pad/splash pad users (sample notice is set out below). For the safety of their patrons, owners/operators may include other rules that may be appropriate for a particular facility (e.g., operator may wish to provide their contact number if the facility requires attention).

“SPRAY/SPLASH PAD POOL RULES”

- Parents or guardians are to supervise their child(ren) at all times when the children are using the spray pad/splash pad.
- 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/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.

Responding to fouling of spray pad/splash pads

If the spray/splash pad has been contaminated due to fouling,

- Ensure users leave the spray pad/splash pad;
- Drain the spray pad/splash pad and the recirculation system;
- Clean and disinfect the spray pad/splash pad and any equipment used in accordance with the Centers for Disease Control and Prevention's "Fecal Incident Response Recommendations for Pool Staff"; and
- Ensure proper operation of the spray pad/splash pad prior to reopening.

Safety tip

- ✓ Obtain a copy of the Centers for Disease Control and Prevention document "Fecal Incident Response Recommendations for Pool Staff" from:
http://www.cdc.gov/healthyswimming/pdf/Fecal_Incident_Response_Recommendations_for_Pool_Staff.pdf

Appendix A – First Aid Kits

Section 16 of Ontario Regulation 428/05 (Public Spas) outlines first aid requirements for a Public Spa which are based on minimum requirements under the Workplace Safety and Insurance Act (WSIA), 1997, R.R.O. 1990, Regulation 1101[†]. For the purposes of applying the first aid requirements to non-regulated recreational water facilities, the following contents are recommended:

First Aid Kit

- (a) a current copy of a standard First Aid Manual;
- (b) 12 safety pins;
- (c) 24 adhesive dressings, individually wrapped;
- (d) 12 sterile gauze pads, each 75 millimetres square;
- (e) four rolls of 50 millimetre gauze bandage;
- (f) four rolls of 100 millimetre gauze bandage;
- (g) four sterile surgical pads suitable for pressure dressings, individually wrapped;
- (h) six triangular bandages;
- (i) two rolls of splint padding;
- (j) one roll-up splint;
- (k) one pair of scissors;
- (l) two pairs of non-permeable gloves; and
- (m) one resuscitation pocket mask.

[†]Note, owners/operators should be encouraged to have an O. Reg. 428/05 compliant first aid kit and may be directed to contact the Workplace Safety and Insurance Board regarding compliance with any other first aid requirements, as applicable in their workplace (www.wsib.on.ca),

Appendix B – References/Resources

1. *Recreational Water Protocol, 2008 (or as current)*
http://www.health.gov.on.ca/english/providers/program/pubhealth/oph_standards/ophs/prog_stds/protocols/recreational_water.pdf
2. *Health Protection and Promotion Act, R.S.O. 1990, c. H.7.* Available at http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_90h07_e.htm.
3. *Building Code O. Reg. 350/06.*, Available at http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_060350_e.htm or contact www.esasafe.com
4. *Workplace Safety and Insurance Act, 1997 - R.R.O. 1990, Reg. 1101.* Available at http://www.e-laws.gov.on.ca/Download?dDocName=elaws_regs_901101_e or contact www.wsib.on.ca
5. Canadian Standards Association: CAN/CSA-Z614-2008 Children's Playspaces and Equipment standard. Available at <http://www.csa.ca/>
6. *Occupational Health and Safety Act, 1990.* Available at http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_90o01_e.htm
7. *Public Spas O. Reg. 428/05.* Available at http://www.e-laws.gov.on.ca/Download?dDocName=elaws_regs_050428_e
8. *Amusement Devices, O. Reg. 221/01* Available at <http://canlii.org/on/laws/regu/2001r.221/20030205/whole.html> or contact www.tssa.org
9. *Protocol for Minimizing the Risk of Cryptosporidium Contamination in Public Swimming Pools and Spa Pools* Available at <http://www.cityofsydney.nsw.gov.au/Business/documents/Health/CryptoPoolsProtocol.pdf> (Retrieved on July 18, 2008.)
10. Centers for Disease Control and Prevention document “Fecal Incident Response Recommendations for Pool Staff” Available at http://www.cdc.gov/healthyswimming/pdf/Fecal_Incident_Response_Recommendations_for_Pool_Staff.pdf