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INTRODUCTION

In Ontario public wading pools are categorized as non-regulated recreational water facilities. There are risks associated with using non-regulated recreational water facilities, which include injuries related to the physical structure, operation of the facility, and waterborne illness risks related to exposure to contaminated water (e.g., *Cryptosporidium*).

This manual is intended to be a reference document for owners/operators and/ or lifeguards to provide basic information on the minimum safety and sanitary guidelines necessary to operate a public wading pool. It highlights some of the significant sections of the *Operating Procedures for Non-Regulated Recreational Water Facilities Guidance Document (The Ontario Ministry of Health and Long-Term Care, April 2010)*. It is not a substitute for the professional expertise of Public Health Inspectors or recreational water maintenance companies.

Public Health Inspectors routinely inspect all operating public wading pools and are available for consultation on compliance issues in regards to your wading pool. To reach an inspector, please call the Peterborough County-City Health Unit at 705-743-1000.

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 (see appendix 1 – *Conditions for Closing a Wading pool*). 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 Health Protection and Promotion Act, R.S.O. 1990.

WADING POOL OPENING NOTIFICATION

Ontario Regulation 565/90 (Public Pools) and Ontario Regulation 428/05 (Public Spas) requires owners/operators to notify the Medical Officer of Health of their intention to open or re-open a public swimming pool or spa. For the purposes of ensuring the public wading pool is safe to operate it is recommended that owners/ operators complete the notification form (see appendix 2 – *Public Pool Opening Notification Form*) and forward it to the Peterborough County-City Health Unit at least two weeks prior to the date of intended opening.

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 edge of the water outside of the water containing structure;
- ✓ Water chemistry is within recommended levels (see *Water Treatment on page 7*);
- ✓ 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 and 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.

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 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), must be available in a place conveniently located for emergency use.

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;

An **emergency telephone** at the wading pool is 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.
- Owners/ operators 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,

Total number of litres of water in the wading pool
----- = **number of days to drain and refill**
Total number of users daily, multiplied by 10

<i>Example</i>	
	3400 litres

20 user/day x 10	200
	= drain and refill every 17 days

HANDLING OF CHEMICALS

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

Safety Tips

- 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.
- Appropriate personal protective equipment for handling chemicals is to be provided (refer to *Occupational Health and Safety Act* requirements).
- When using chemicals, always add the chemical to the water to prevent the chemical from splashing.
- **See appendix 3 – Handling Chemicals Safely (page 14)**

MAINTAIN A LOG BOOK

Every owner/ 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.
- **See appendix 4 – *Wading Pool Log Book Records***

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/ children at all times when the child/ children are in the wading pool.
- Children should be appropriately attired for their age and continence ability to prevent fouling of the pool. (For example: swim diapers are permitted for children that are incontinent).
- 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.

Wading Pool Name: _____

Address of wading pool location: _____

Nearest main intersection: _____

Emergency Telephone Number: _____

RESPONSE TO FOULING OF A WADING POOL

If the pool has been contaminated due to a bowel movement, vomiting, or any other fouling (i.e., chemical spill, blood spill, animal feces),

- 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.

APPENDICES

APPENDIX 1 – CONDITIONS FOR CLOSING A WADING POOL

A wading pool shall be immediately closed when any of the following conditions are observed:

- Water clarity is poor.
- Fouling (eg. Blood and body fluids, faecal, or chemical).
- Filtration or circulation system is not operative or malfunctioning.
- Power outage.
- Drain cover or fittings missing or not in good repair.
- Suction system missing or malfunctioning (e.g. Vacuum release).
- Emergency telephone missing or malfunctioning.
- Lifesaving safety equipment is not available.
- GFCI missing or malfunctioning.
- Disinfectant not detected in the pool water and not available on site to immediately rectify the lack of disinfectant in pool water.
- A swimming pool or spa that has been closed and access to the wading pool is in the same enclosure.
- Any other conditions that maybe considered a health hazard (e.g. sharp objects such as broken glass in water, confirmation of pathogenic agents such as cryptosporidium) subject to consultation with your manager and the Medical Officer of Health or Public Health Inspector.

Appendix 2 – WADING POOL OPENING NOTIFICATION FORM

This is to notify the Medical Officer of Health of the intention to open the pool in accordance with Sections 5(2), (3), 6(1) of Ontario Regulation 565/90 made under the Health Protection and Promotion Act R.S.O. 1990, Chap. H.7.

Class <input type="checkbox"/> A <input type="checkbox"/> B	<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor	Intended Date of Pool Opening: Month/Day/Year
Building Permit: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Permit Number:	Date Pool Built: Month/Day/Year
Pool Information		
Name of Pool:		
Address:		Phone (at the Pool):
Registered Owner of the Premises (Company):		
Mailing Address:		Phone:
Name of Operator (Print): has been designated by me to operate the pool.		
Signature of Signing Officer:		Date: Month/Day/Year
Operator of Pool		
Pool Company:		
Address:		Phone:
Name of Signing Officer (Print):		
Signature of Operator/ Signing Officer:		Date: Month/Day/Year
Building Management		
Company:		
Address:		Phone:
Name of Signing Officer:		
Signature of Signing Officer:		Date: Month/Day/Year
Superintendent's Name:		Phone:
Apt:		

Note: Any changes to the above mentioned information shall be immediately indicated in writing to the Peterborough County-City Health Unit. In order to meet a request for the Public Health Inspector to attend the premises prior to the opening, **two weeks advance notice of the opening date is required.**

Personal information on this form is collected under the authority of the Health Protection and Promotion Act, R.S.O. 1990, c. H. 7. The information is used for enforcing the Act, processing demand calls, and aggregate statistical reporting. Questions about this collection can be directed to: Manager, Inspection Services, 10 Hospital Dr, Peterborough, ON K9J 8M1. Telephone: 705-743-1000. *Fax Alert: *Sending personal information by fax is not a secure means of transmission. It is recommended that this form be returned by regular mail. **May 2010**



APPENDIX 3 – HANDLING CHEMICALS SAFELY

- Store spa chemicals in a cool, dry and ventilated area.
- Keep corrosive materials away from other chemicals.
- Keep all chemicals away from hot surfaces and flames.
- Have personal protective equipment available as required.
- Material Safety Data Sheets must be made available to employees for every chemical in use.
- Do not eat, drink or smoke in the chemical storage area.
- Ensure the chemical storage room is inaccessible to unauthorized persons.
- Handle chemicals with clean and dry scoops only. Each chemical must have its own scoop. Use scoops provided by the manufacturer if available.
- Keep containers closed when chemicals are not in use.
- Label all containers with the chemical name.
- Never reuse empty chemical containers for the storage of other chemicals.
- Never mix contaminated chemicals with your fresh supply.
- When mixing chemicals, add them slowly. Never add water to the chemicals, always add the chemical to the water.
- Always wash hands thoroughly after handling chemicals.

APPENDIX 4 – WADING POOL LOG BOOK RECORDS

DAILY INSPECTION AND RECORDS				
EMERGENCY PHONE (before opening)	SATISFACTORY OR UNSATISFACTORY	AM/PM	MONTH/DAY/YEAR	SIGNATURE
GROUND FAULT INTERRUPTER	SATISFACTORY OR UNSATISFACTORY	AM/PM	MONTH/DAY/YEAR	SIGNATURE
O.R.P. ½ HOUR BEFORE OPENING AND 1x DURING THE DAY	1 ST READING	2 ND READING	MONTH/DAY/YEAR	SIGNATURE
POOL TANK DRAINED	YES	NO	MONTH/DAY/YEAR	SIGNATURE
OUTLET(S) CHECKED	YES	NO	MONTH/DAY/YEAR	SIGNATURE
POOL TANK REFILLED	YES	NO	MONTH/DAY/YEAR	SIGNATURE
NUMBER OF BATHERS	# OF BATHERS		MONTH/DAY/YEAR	SIGNATURE
WATER METER READING			MONTH/DAY/YEAR	SIGNATURE
CHEMICALS ADDED MANUALLY	TYPE AND AMOUNT		MONTH/DAY/YEAR	SIGNATURE
EMERGENCIES, RESCUES, BREAKDOWN OF EQUIPMENT			MONTH/DAY/YEAR	SIGNATURE

HOURLY WATER TESTS

FREE AVAILABLE CHLORINE	½ HR BEFORE OPENING	m/L	7 AM	8 AM	9 AM	10AM	11AM	12PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM
TOTAL BR./CL RESIDUAL		m/L												
pH														
TEMPERATURE		°C												
ALKALINITY														
WATER CLARITY														
OPERATOR'S INITIAL														

FREE AVAILABLE CHLORINE	½ HR BEFORE OPENING	m/L	7 AM	8 AM	9 AM	10AM	11AM	12PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM
TOTAL BR./CL RESIDUAL		m/L												
pH														
TEMPERATURE		°C												
ALKALINITY														
WATER CLARITY														
OPERATOR'S INITIAL														

REFERENCES

Operating Procedures for Non-Regulated Recreational Water Facilities Guidance Document, 2010. Ontario Ministry of Health and Long-Term Care: Environmental Health Program Standards. Available at:
http://www.health.gov.on.ca/english/providers/program/pubhealth/oph_standards/ophs/guidance.html

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Ontario Ministry of Health and Long-Term Care: Environmental Health Program Standards.

Toronto Public Health



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