



Spa
Operators
M A N U A L

HealthUnit
Haldimand-Norfolk

www.hnhu.org • info@hnhu.org

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Introduction

Spas have been implicated in numerous fatal or near fatal injuries. They have also been the source of ear, nose and throat infections, as well as stomach upsets, skin rashes and diarrhea.

This manual is designed to provide basic information on the minimum safety standards required to operate of a public spa. It will help spa operators to comply with Ontario Regulation 428/05 (Public Spas) under the Health Protection and Promotion Act, Revised Statutes of Ontario 1990.c.H.7.

This manual is to be used as a reference document only. It is not a substitute for Ontario Regulation 428/05. As well, it is not a substitute for the professional expertise of spa maintenance companies or Public Health Inspectors.

Exemption from Ontario Regulation 428/05 (Public Spas)

Not every spa is covered by this Regulation. If the spa serves five or fewer units or suites than the Regulation does not apply to it provided a sign is displayed as set out in the Regulations.

Section 2

(1) *"In this section,*

"Class A pool" has the same meaning as in Regulation 565 of the Revised Regulations of Ontario, 1990 (Public Pools) made under the Act;

"Class B pool" has the same meaning as in Regulation 565 of the Revised Regulations of Ontario, 1990 (Public Pools) made under the Act."

(2) *"This Regulation applies to the following public spas, whether or not they are operated in conjunction with a Class A pool or a Class B pool, and to all buildings, appurtenances and equipment used in their operation"*

Refer to Ontario Regulation 428/05 (Public Spas) for details.

(3) *"A public spa operated on the premises of a hotel that contains five or fewer units of suites, for the use of its guest and their visitors, is exempt from this Regulation, if the following notice is displayed in a conspicuous place within the public spa enclosure, printed in letters at least 25 millimetres high with a minimum five millimetre stroke;"*

CAUTION

**USE SPA AT YOUR OWN RISK
THIS SPA IS NOT SUBJECT TO THE REQUIREMENTS OF
ONTARIO REGULATION 428/05 (PUBLIC SPAS)**

Operator, designation and training

Professional spa service companies are increasingly getting involved in the day-to-day operations and maintenance of public spas with increasing numbers of spas in facilities such as hotels and motels, apartments and condominiums and fitness clubs.

Owners/operators need to ensure that persons performing water quality control and/or system component maintenance have the necessary training and are competent even if they are from a professional spa service company.

Section 3:

- (1) *“Every owner shall designate an operator.”*
- (2) *“Every operator shall be trained in public spa operation and maintenance, filtration systems, water chemistry and all relevant safety and emergency procedures.”*

Notification of public spa opening

The Regulation requires owners/operators to notify the Medical Officer of Health of their intention to open or re-open a public spa. Failure to notify may result in legal action and fines. Please contact the Health Unit at least two weeks prior to the date of intended opening. This must be done in the following circumstances:

New spa

Section 4

- (2) *“Before a public spa is put into use after construction or alteration, the owner or the owner’s agent shall give to the medical officer of health in the health unit where the spa is located written notice of,*
 - (a) *the building permit number issued for the construction or alteration of the spa;*
 - (b) *whether or not all the preparations necessary to operate the spa in accordance with this Regulation have been completed;*
 - (c) *the date that the spa is intended to be opened or re-opened for use; and*
 - (d) *the operator’s name and address.”*

Re-opening a spa after construction

Section 4

- (3) *“An owner who proposes to open or re-open a spa for use as a public spa after **construction** or **alteration** shall not open or re-open the spa without first obtaining permission in writing from the medical officer of health in the health unit where the spa is located.”*

Re-opening a spa after closure (more than four weeks)

Section 4

(4) *“Every owner who intends to re-open a public spa after any closure of **more than four weeks** duration shall first give to the medical officer of health in the health unit where the spa is located written notice of,*

- (a) the date that the spa is intended to be re-opened; and*
- (b) the operator’s name and address”*

Operation, general requirements

Under Section Five of the Regulation spa owners/operators are required to conduct routine checks on a daily, weekly or monthly basis. These checks include operational maintenance, servicing and component replacement issues.

To ensure compliance owners/operators are encouraged to develop a maintenance plan.

Section 5

(1) *“Every owner and operator shall,*

- (a) maintain the public spa and its equipment in a safe and sanitary condition;*
- (b) ensure that all components of the public spa and its equipment are maintained in proper working order;*
- (c) ensure that all emergency equipment required by this Regulation is maintained in proper working order;*
- (d) ensure that all surfaces of the public spa deck and walls are maintained in a sanitary condition and free from potential hazards;*
- (e) ensure that carpeting or other water-retentive material is not installed or used in any area that becomes or may become wet during the daily use period;*
- (f) if they are provided, ensure that dressing rooms, water closets and shower facilities are,*
 - (i) available for use of the bathers before entering the deck, and*
 - (ii) maintained in a sanitary condition and free from potential hazards;*
- (g) ensure that no person brings a glass container onto the deck or into the public spa; and*
- (h) ensure that no food or beverage except water is supplied or consumed in the public spa or on the deck.”*

Section 5

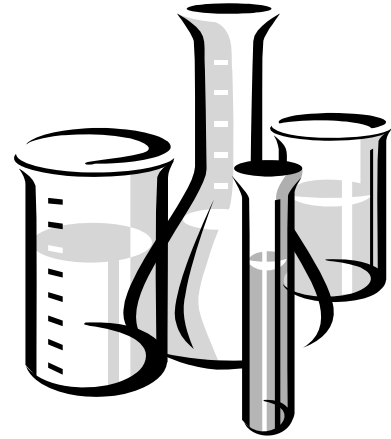
(2) *“Every owner and operator shall ensure that, except during the daily use period the public spa is inaccessible to persons who are not involved with its operation, inspection or maintenance.”*

Water Treatment (Water Balance)

In order for the sanitizer (chlorine or bromine) to destroy harmful organic waste, the spa water must be in proper balance.

Proper balance means that the pH level, total alkalinity, calcium hardness, temperature and total dissolved solids must be kept at levels that ensure water is neither corrosive nor scale-forming. To ensure proper balance maintain the range outlined in Sections 6(1) to 6(4) of the Regulation for these values.

| <u>Water Treatment</u> <u>Sections 6 (1) – 6 (4)</u> | |
|--|--|
| Total Alkalinity | Minimum 80 mg/l but not more than 180 mg/l ideal range 100 - 120mg/l |
| pH | 7.2 – 7.8 ideal range 7.4 – 7.6 |
| Free Available Chlorine or Total Bromine | 5 - 10 mg/l |
| (if provided) Oxidation Reduction Potential (ORP) | not less than 700mV |
| Cyanuric Acid Ideal range 30 – 50 mg/l Note: Cyanuric Stabilizer should be not added if the spa and its deck is totally or partially covered by a roof | Maximum of 150 mg/l |
| Clarity Ideal to have a cover or fitting in a contrasting colour to the spa surface | Lowest outlet drain is visible when the spa is in a non-turbulent state |
| Filtration System | In continuous operation except during maintenance or repairs |



Oxidation Reduction Potential (ORP)

An ORP reading on an automatic sensing device (controller) of a spa is an indicator of the sanitizer's (chlorine or bromine) ability to destroy harmful organic matter in the water, such as bacteria, viruses, human waste, etc. This is measured in milli-volts (mV).

The ORP value is affected by both the pH (hydrogen ion concentration) and the amount of cyanuric acid in the spa water. As the amount of cyanuric acid increases, the effectiveness of chlorine/bromine decreases resulting in a corresponding reduction in the ORP reading. Similarly, as pH increases there will be a corresponding reduction in the ORP reading. However, as pH decreases the production of hypochlorous acid increases, resulting in an increase in the ORP reading.

The accuracy of an ORP reading is also dependent upon proper installation and maintenance of measuring equipment. The electrodes (probes) that measure the ORP are designed to operate with a set volume of water flowing past it. Probes must be kept clean and free of any deposits to give accurate ORP readings. Further information on the proper maintenance of such equipment can be obtained from the manufacturer.

It is important to remember that the ORP is a measure of the effectiveness of chemicals in the water. Milligrams per litre (mg/l) or parts per million (PPM) is a quantitative measure the quality of chemicals in the water. A substantial difference between the ORP reading and the manual chemical test (mg/l) means that the automatic sensing device requires maintenance.

The Regulation requires an owner/operator to record the ORP reading one-half hour before a spa is open for use and once during the operating day.

Owner/operators must therefore establish the daily use period for the spa.

Section 6 - Water treatment


(d) "If the public spa is equipped with an automatic sensing device, the Oxidation Reduction Potential value is not less than 700mV"

Section 20 - Daily inspection

(3) "If the public spa is equipped with an automatic sensing device, every operator shall determine the spa's water Oxidation Reduction Potential one-half hour before the spa is opened for use on an operating day, and thereafter, at least once more during the daily use period."

Water replacement

Maintaining water balance in a spa is more difficult than in a pool. However, problems can be easily corrected by replacing the water. Disinfectants, water clarifiers, oxidizers and other chemicals are effective in maintaining water balance, but do not remove all the contaminants. As contaminants (nutrients) in the water increase, the ability of water to oxidize (destroy) the contaminants decreases. This creates the ideal conditions in the filtration system for organisms to grow, thereby creating a potential health hazard. This situation can be prevented by regularly cleaning the spa, replacing the water and super chlorinating the water. The rate at which the spa water is replaced is based on bather usage. Owners/operators are responsible for tracking the daily number of bathers.

| <u>Water replacement</u> Sections 7(1) – (4) | | |
|---|--|---|
| Spa of less than 4000 litres (smaller spas) | <ul style="list-style-type: none"> Drain water from the spa and refill the spa with clean water in accordance with the following formula: $\text{WRI} = \frac{\text{V}}{10 \times \text{U}}$ <p>WRI = number of days between draining V = total volume of spa in litres U = total number of bather uses per operating day</p> Before refilling inspect all parts of the spa e.g. drain cover, suction fitting and all emergency equipment. |  |
| Spa of more than 4000 litres (larger spas) | <ul style="list-style-type: none"> Add make-up water during each operating day in an amount that is not less than 30 litres/bather use, to a maximum of 20% of total spa area. Have a meter capable of measuring the volume of make-up water added. | |

Water temperature

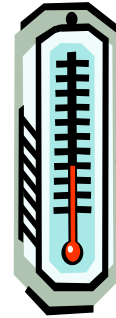
Hyperthermia occurs when the body's internal temperature rises several degrees above the normal reading of 98.6°F (37°C). Symptoms include dizziness, fainting, drowsiness, lethargy and an increase in the internal body temperature (similar to a high fever). Body mass has a direct correlation to hyperthermia. Thus, women who are pregnant, or who may be pregnant, and young children should not use a spa without consulting a physician. The owner/operator must ensure that the water heating device is equipped with a tamper-proof, upper-limit cut-off switch in order to limit the temperature to a maximum of 40°C (104°F). The switch must be independent of other temperature control devices, such as thermostats.

Section 8

“Every owner shall ensure that the public spa water heater is equipped with a tamper-proof, upper-limit cut-off switch that,

*(a) limits the maximum temperature of the spa water to **40°C /104°F**; and*

(b) is independent of the spa's water temperature thermostat.”



Timing device

A maximum time limit of 15 minutes is set in order to reduce any risk of injury due to hyperthermia. A bather is required to exit the spa and cool down before returning for another brief stay. The timing device should be in a location that requires bathers to exit the spa to reset it.

Long exposure may result in:

- a bather losing the ability to exit the spa
- failure to recognize how hot the water is
- failure to recognize the need to leave the spa
- unconsciousness resulting in drowning

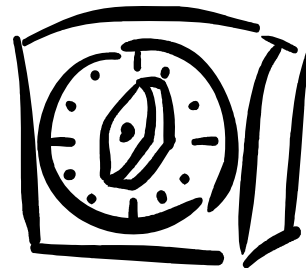
Section 9

(1) “ Every owner and operator of a public spa containing hydro-massage jet fittings shall ensure that the spa is equipped with a timing device that,

(a) controls the period of operation of the jet pump;

*(b) can be set to a maximum of **15 minutes**; and*

(c) is placed in a location that requires a bather to exit the spa to reset it.”



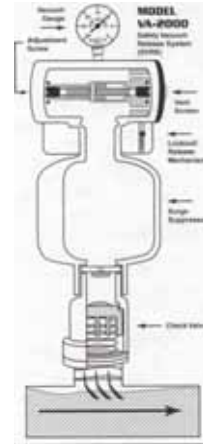
Suction system

Accidents due to entrapment and hair entanglement by suction fittings have occurred periodically, causing deaths and serious injuries. As a result, the province now requires that all spas be fitted with a device to prevent such incidents. **Note:** The Regulation requires that these devices be tested every 30 day operating period.

Section 10

“Every owner shall ensure that the suction system that serves the public spa is equipped with a vacuum relief mechanism that includes,

- (a) a vacuum release system;*
- (b) a vacuum limit system; or*
- (c) another engineered system designed, constructed and installed to conform to good engineering practice appropriate to the circumstances.”*

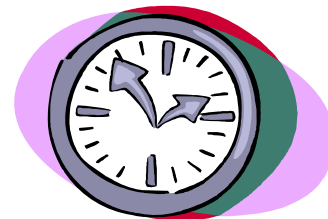


Install a Clock

Public spas are typically equipped with timers to control the hydrotherapy jets and air induction units. The common practice is to limit spa use to 15 minutes. However, bathers who do not use the hydrotherapy jets and air induction units must be able to determine how long they should remain in the spa. A clock in a conspicuous location will provide the required information. Signs conspicuously posted will inform bathers of the time limit. The combined actions of a timer, clock and sign will encourage bathers to exit the pool and allow their bodies to cool down. Also see hyperthermia on Page 11 under water temperature.

Section 11

“Every owner shall ensure that a clock is installed in a conspicuous location that can be viewed from anywhere in the public spa.”



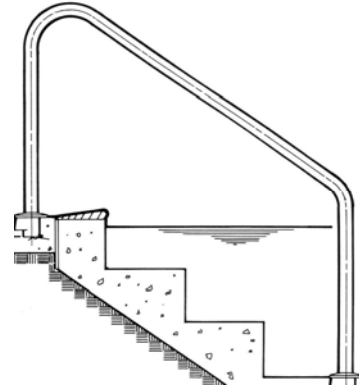
Steps

The Regulation requires that all steps entering or exiting a spa must be equipped with a secure handrail and a non-slip tread surface. The treads must have a band of contrasting colours along the entire side and top of the edges of each step. Visibility of steps is crucial in preventing injury.

Section 12

“Every owner shall ensure that, if a set of steps is provided for entry into and exit from the spa water, the set of steps,

- (a) are equipped with a handrail;*
- (b) have a non-slip surface on their treads; and*
- (c) have a band of contrasting colour applied along the entire juncture of the side and top of the edges of each step.”*



Emergency telephone

The emergency telephone is one of the most important pieces of safety equipment used for getting help to an injured bather. The telephone must be within 30 metres of a spa and be connected to the local service provider. It must **not** be connected directly to 911 or the police, and must be tested daily. Time is crucial when emergency help is required.

Section 13

- (1) “Every owner shall ensure that there is a land line emergency telephone located within **30 metres** of the public spa that connects directly to an emergency service or the local telephone utility.”*



Emergency stop button

In an event of an injury or entrapment, bathers must have quick and easy access to the emergency stop button in order to deactivate the spa pumps and activate the audible and visual alarms. The button’s location must conform to the Ontario Building Code for ground fault circuit interrupters (GFI). It is a requirement of the Regulation that owners/operators test the GFI daily before opening the spa.

Bathers should be encouraged to use a buddy system and **not** use the spa alone.

Section 14

- (1) "Every owner shall ensure that all pumps used in the operation of the public spa are capable of being deactivated by an emergency stop button that,
- (a) is separate from the spa's timing device
 - (b) is located within the immediate vicinity of the spa; and
 - (c) activates an audible and visual signal when used."



Other emergency equipment

This section describes the essential equipment that must be provided to safely remove and transport an injured bather.

Section 15

- (1) "This section applies to an owner of a public spa that has an inner horizontal dimension greater than three metres."
- (2) "Subject to subsection (3), every owner shall ensure that there are provided, in places conveniently located for emergency use,
- (a) an electrically insulated or non-conducting reaching pole that is at least 3.65 metres in length;
 - (b) a buoyant throwing aid to which is securely attached a six millimetre diameter rope of a length not less than half the width of the pool plus three metres; and
 - (c) a spine board or other device designed for transporting a person who has incurred a spinal injury."



(3) "Where an item described in clause (2) (a), (b) or (c) is provided under section 20(1) of Regulation 565 of the Revised Regulation of Ontario, 1990 (Public Pools) made under the Act to a public pool that operates in the immediate vicinity of the public spa, an owner is not required to provide a duplicate item as long as the item is conveniently located for emergency use to the spa."

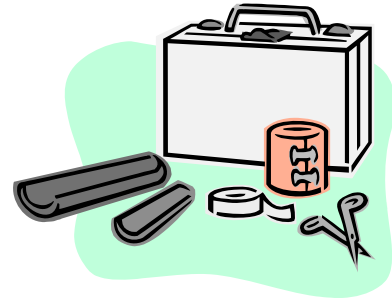
(4) "Every owner shall ensure that marking in figures not less than 100 millimetres high that set out the water depths indicating the deep points, the break between gentle and steep bottom slopes and the shallow points, and the words **DEEP AREA** and

SHALLOW AREA are displayed at the appropriate locations on the deck.”

First-aid box

Section 16

Every owner and operator shall ensure that there is provided in a place conveniently located for emergency use a first-aid box containing, at a minimum:



First Aid Kit for Spas

- a current copy of a Standard First Aid Manual
- 12 safety pins
- 24 adhesive dressings, individually wrapped
- 12 sterile gauze pads, each 75mm square
- 4 rolls of 50 mm gauze bandage
- 4 rolls of 100 mm gauze bandage
- 4 sterile surgical pads suitable for pressure dressing, individually wrapped
- 6 triangular bandages
- 2 rolls of splint padding
- 1 roll-up splint
- 1 pair of scissors
- 2 pairs of non-permeable gloves and
- 1 resuscitation pocket mask

Ontario Regulation 428/05

Maximum capacity

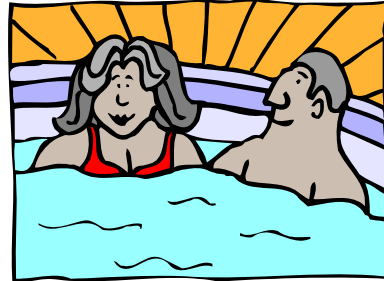
To protect bathers, the maximum number of persons allowed in a public spa should be limited to that recommended by the manufacturer. This maximum capacity must be posted and should be included in the caution notice as required in section 18(1).

Section 17

“Every operator shall ensure that the maximum number of persons permitted to use a public spa at any one time is the lesser of,

(a) one person per square metre of surface water area; and

(b) the maximum bather load identified by the manufacturer of the spa.”



Daily inspection

Owners/operators must take the time to understand and familiarize themselves with this section. Injury prevention reports compiled from the daily record can be used by management to develop new objectives, such as training requirements, facility renovations and/or equipment installation/replacement.

Section 20

(1) *“Every operator shall, by means of manual test methods, determine at the times set out in subsection (2) the following regarding the public spa water:*

- 1. Total alkalinity.*
- 2. pH value.*
- 3. Free available chlorine or total bromine residual.*
- 4. Water clarity.*
- 5. Water temperature.”*

(2) *“Measurements made under subsection (1) shall be made one-half hour before the public spa is opened for use on an operating day, and thereafter,*

(a) at time intervals not exceeding one hour until the daily use period has ended; or

(b) at least once more during the daily use period, if the public spa is equipped with an automatic sensing device.”

(3) *“If the public spa is equipped with an automatic sensing device, every operator shall determine the spa water’s Oxidation Reduction Potential one-half hour*

before the spa is opened for use on an operating day, and thereafter, at least once more during the daily use period.”

- (4) “Every operator shall ensure that the emergency telephone is tested before the public spa is opened for use on an operating day.”*
- (5) “Every operator of a public spa with a ground fault circuit interrupter shall ensure that the test-button associated with it is activated before the spa is opened for use on an operating day.”*
- (6) “Every operator of a public spa with a make-up water meter shall ensure that the meter is read at the end of an operating day.”*

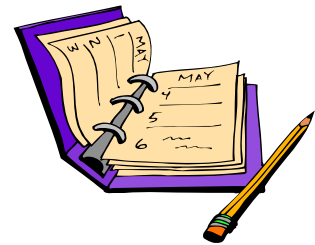
Daily records

Owners/operators have a legal responsibility to keep proper records. These records play a significant role in every aspect of managing a spa. They show how the facility operates, help to reduce costs and liability and ensure staff and bather safety. Refer to Sections 20 to 22 in the Regulation to determine what must be recorded daily. Also refer to Appendices Four to Six for examples of daily, weekly and monthly records.

Section 21

(1) “Every operator shall keep and sign a daily record that sets out, in relation to an operating day,

- (a) the results of the tests required under subsections 20(1) and(3), and the times they were performed;*
- (b) the time of day that the emergency phone test and ground fault circuit interpreter test were performed;*
- (c) the reading of the make-up water meter, if applicable;*
- (d) the type and amount of any chemicals added manually to the public spa;*
- (e) the estimated number of bather uses during the daily use period;*
- (f) whether the public spa was drained, inspected and refilled in accordance with subsection 7(3) and (4), if those subsections apply; and*
- (g) any emergencies, rescues or breakdowns of equipment that have occurred.”*



*(2) “The daily record shall be retained for a period of **one year** from the date of making the record and shall be available for viewing by a medical officer of health or a public health inspector at any time.”*

Other inspections

Owners/operators must ensure that safety equipment, such as the vacuum release mechanism, emergency stop button and gravity and suction outlet cover, is tested at least once every 30 operating days to ensure it is operating properly.

Cyanuric acid (stabilizer) is sometimes used in a spa to prevent rapid loss of chlorine. Tests for cyanuric acid concentration must be carried out weekly and recorded. See Appendix Six – Weekly Test for Cyanuric Acid. Spas that are totally or partially covered by a roof must not use cyanuric acid.

Section 22

(1) *“Every operator shall ensure that,*

- (a) where a public spa has gravity and suction outlet covers, the outlets covers are inspected at least once within each period of 30 operating days;*
- (b) the emergency stop button and vacuum release mechanism, if any, are tested and inspected at least once within each period of 30 operating days; and*
- (c) where cyanurate stabilization is maintained, the concentration of cyanuric acid is determined not less than once per week.”*



(2) *“Every operator shall ensure that*

- (a) a written record of the inspection required by subsection(1) is made and signed by the person who performed the inspections; and*
- (b) the written record of the inspections is retained by the operator for at least one year from the date the record is made and is available for viewing by a medical officer of health or a public health inspector at any time.”*

Signage required at public spas

The following sections describe the signage required at public spas. Refer to Appendix Seven for a summary of these requirements.

Section 9

(2) “Every owner and operator shall ensure that a notice, in letters at least 25 millimetres high with a minimum five millimetre stroke, is posted at the timing device that identifies it as a timing device.”

Section 13

(2) “Every owner shall ensure that a notice indicating the location of the emergency telephone, in letters not less than 25 millimetres high with a minimum five millimetre stroke, is posted in a conspicuous location near the entrance to the public spa.”

(3) “Every owner shall ensure that a notice is posted at the emergency telephone that,

(a) “identifies the telephone as an emergency telephone in letters not less than 25 millimetres high with a minimum five millimetre stroke;”

(b) lists the names, telephone numbers and addresses of persons who are available for resuscitation, medical aid and fire services; and

(c) lists the full name and address of the public spa facility location and all of the facility’s emergency telephone numbers.”

Section 14

(2) “Every owner shall ensure that the following notice, in letters at least 25 millimetres high with a minimum five millimetre stroke, is posted above the emergency stop button:

IN THE EVENT OF AN EMERGENCY PUSH EMERGENCY STOP BUTTON AND USE EMERGENCY PHONE. AN AUDIBLE AND VISUAL SIGNAL WILL ACTIVATE”

Section 15

*(4) “Every owner shall ensure that markings in figures not less than 100 millimetres high that set out the water depths indicating the deep points, the break between gentle and steep bottom slopes and the shallow points, and the works **DEEP AREA** and **SHALLOW AREA** are displayed at the appropriate locations on the deck.”*

Section 18

*Every owner and operator shall ensure that the following notice is posted in a conspicuous place at each entrance to the public spa with the word **CAUTION** in letters not less than 50 millimetres high, all other lettering not less than 10 millimetres high, and with a minimum five millimetre stroke in either case:*

CAUTION

Children under the age of 12 are not allowed in the spa unless supervised by a person who is 16 years of age or older.

Pregnant women and persons with known health or medical conditions should consult a physician before using a spa.

Do not use the spa if you have an open sore or rash, or are experiencing nausea, vomiting or diarrhea.

Over-exposure may cause fainting. 10 to 15 minutes may be excessive for some individuals. Cool down periodically and leave the spa if nausea or dizziness occurs.

Enter and exit the spa slowly, to prevent slipping.

Do not play or swim near drains or suction devices. Your body, body parts, hair, jewelry and other objects may become trapped and cause injury or drowning. People with long hair should be especially careful.

Do not enter or remain in a spa if a drain cover or suction fitting is loose, broken or missing. Immediately notify the spa operator.

No food or beverage except water is permitted within the deck or spa. No glass containers of any kind are permitted within the deck or spa.

Maximum Bather Capacity_____

(2) The notice described in subsection (1) shall include the maximum bather capacity of the public spa determined under section 17

Section 19

(1) "Every bather shall take a cleansing shower using soap and warm water before entering the deck."

(2) "Every operator shall post a sign in a conspicuous location near every entrance to the deck that indicates, in letter not less than 25 millimetres high with a minimum five millimetre stroke, the bather's duty to shower under subsection (1)."

Appendices

Appendix 1 - Glossary

| | |
|---------------------------------|--|
| Acid | <ul style="list-style-type: none">• A chemical compound which releases hydrogen ions in water solutions. |
| Algae | <ul style="list-style-type: none">• Plant life of many colours which grows in water in the presence of sunlight and carbon dioxide. In spas, algae produces slippery spots and cloudy, uninviting water. |
| Automatic Sensing Device | <ul style="list-style-type: none">• A device that determines and continuously displays<ul style="list-style-type: none">(a) sanitizer residual and(b) pH value of the water and(c) regulates the operation of chemical feeders to maintain sanitizer and pH levels in accordance with the Regulation. |
| Chemical feeder | <ul style="list-style-type: none">• A mechanism that automatically adds of chemicals to spa water. May be a proportioning pump, injector feeder, pot feeder operating on a water pressure differential, or a dry type feeder. |
| Circulation system | <ul style="list-style-type: none">• A system that (a) maintains circulation of water through a public spa by pumps; (b) draws water from a spa for treatment and returns it as clean water and (c) provides continuous treatment that includes filtration and chlorination or bromination and other processes that may be necessary to treat water |
| Clarity | <ul style="list-style-type: none">• The degree of transparency of water. Characterized by the ease with which the lowest outlet drain is visible when the spa is in a non-turbulent state. |
| Clean water | <ul style="list-style-type: none">• Water added to a spa after treatment in a circulation system. |
| Chloramines | <ul style="list-style-type: none">• Organic compounds made up of chlorine and nitrogen containing substances such as ammonia (organic matter) which causes skin and eye irritation and has a strong unpleasant odor. |
| Chlorine gas | <ul style="list-style-type: none">• A heavier than air, green highly poisonous gas compressed into liquid form and stored in heavy steel cylinders. Used in spas as a bactericide and algacide. Extreme caution must be used in handling. |
| Chlorine generators | <ul style="list-style-type: none">• Equipment that generates chlorine gas, hypochlorous acid or hypochlorite on site for disinfection and oxidation of water contaminants. |

| | |
|--------------------------------|--|
| Combined/Total Chlorine | <ul style="list-style-type: none"> Chlorine which is available as a bactericide in water, but which is combined with another substance, usually ammonia. Combined chlorine is usually less effective against bacteria. It is the total of free available chlorine plus chloramines. |
| Daily use period | <ul style="list-style-type: none"> Daily period of time during which a spa operates. |
| Disinfectant | <ul style="list-style-type: none"> A product (chemical/energy) used to kill pathogens (disease-causing organisms) in water. |
| Deck | <ul style="list-style-type: none"> An area immediately surrounding the spa. |
| Free available chlorine | <ul style="list-style-type: none"> The amount of chlorine remaining in pool water at any given moment after chlorine demand has been satisfied. |
| Hotel | <ul style="list-style-type: none"> A hotel , inn, motel, resort or other building or premises operated to provide sleeping accommodation for the public. |
| Make-up water | <ul style="list-style-type: none"> Water added from an external source. |
| Operating day | <ul style="list-style-type: none"> A day on which the spa is in use. |
| Operator | <ul style="list-style-type: none"> A person designated by the owner of the spa as being responsible for its operation. |
| Owner | <ul style="list-style-type: none"> A person who is the owner of a spa. |
| PPM | <ul style="list-style-type: none"> Parts per million. Calculated in weight units. In dilute water solutions, the weight-volume relationship of milligrams per litre may be substituted. |
| Public Spa | <ul style="list-style-type: none"> A hydro-massage pool containing an artificial body of water that is intended primarily for therapeutic or recreational use; that is not drained, cleaned or refilled by individual users and that utilizes hydro-jet circulation, air induction bubbles, current flow or a combination over the majority of the pool area. |
| Total Alkalinity | <ul style="list-style-type: none"> The degree or extent of the alkaline nature of water. The amount of alkalinity is determined by a filtration measurement. If excessive alkalinity is present, the acid demand index indicates how much acid to add to bring the water to the desired level. |

Class A Pool

O. Reg. 428/05 (Public Spas)

Section 2(1)

“Class A pool” has the same meaning as in Regulation 565 of the Revised Regulations of Ontario, 1990(Public Pools) made under this Act”

O.Reg.565/90 (Public Pools)

- a pool to which the general public is admitted,
- a pool operated in conjunction with or as part of a Young Men’s Christian Association (YMCA) or similar institution or an educational, instructional, or physical fitness or athletic institution supported in whole or in part by public funds or public subscription, or
- a pool operated on the premises of a recreational camp, for use by campers and their visitors and camp personnel.

Class B Pool

O. Reg. 428/05 (Public Spas)

Section 2(1)

“Class B pool” has the same meaning as in Regulation 565 of the Revised Regulation on Ontario 1990 (Public Pools) made under this Act.”

O.Reg.565/90 (Public Pools)

- a pool operated on the premises of an apartment building that contains more than five dwelling units or suites, a mobile home park or a nurses’ residence, for the use of the occupants and their visitors,
- a pool operated as a facility to serve a community of more than five single-family private residence, for the use of the residents and their visitors
- a pool operated in the premises of a hotel, for the use of its guest and their visitors,
- a pool operated on the premises of a campground, for the use of its tenants and their visitors,
- a pool operated in conjunction with a club for the use of its members, and their visitors, or a condominium, co-operative or commune property that contains more than five dwelling unit or suites, the use of the owners or members of their visitors,
- a pool operated in conjunction with a day nursery , day camp or an establishment or institution or the care of treatment of persons who are ill, infirm or aged or for persons in custodial care, for the use of such persons and their visitors, or
- a pool other than a Class A pool, that is not exempt from the provisions of this Regulation.

Appendix 2

| | | |
|---------------------|-----------------|--------------|
| Name of Spa: | Address: | Date: |
|---------------------|-----------------|--------------|

Spa Hourly Water Tests

| Free Available Chlorine | ½ hr. before opening | | 1AM | 2AM | 3AM | 4AM | 5AM | 6AM | 7AM | 8AM | 9AM | 10AM | 11AM | 12AM |
|-------------------------|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| | m/L | | | | | | | | | | | | | |
| Total Br./CL Residual | | m/L | | | | | | | | | | | | |
| pH | | | | | | | | | | | | | | |
| Temperature | | °C | | | | | | | | | | | | |
| Alkalinity | | | | | | | | | | | | | | |
| Water clarity | | | | | | | | | | | | | | |
| Operator's initial | | | | | | | | | | | | | | |

| Free Available Chlorine | ½ hr. before opening | | 1PM | 2PM | 3PM | 4PM | 5PM | 6PM | 7PM | 8PM | 9PM | 10PM | 11PM | 12PM |
|-------------------------|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| | m/L | | | | | | | | | | | | | |
| Total Br./CL. Residual | | m/L | | | | | | | | | | | | |
| pH | | | | | | | | | | | | | | |
| Temperature | | °C | | | | | | | | | | | | |
| Alkalinity | | | | | | | | | | | | | | |
| Water clarity | | | | | | | | | | | | | | |
| Operator's initial | | | | | | | | | | | | | | |

Spa 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 open + 1x during the day | 1 st reading | 2 nd reading | Month/Day/Year | Signature |
| Spa tank drained | Yes | No | Month/Day/Year | |
| Spa tank refilled | Yes | No | Month/Day/Year | |
| Number of bathers | # of bather | | Month/Day/Year | |
| Water meter reading | 1st reading am/pm | 2 nd reading am/pm | Water added | |
| Chemicals added manually | Type & amount | | Month/Day/Year | |
| Emergencies, Rescues, breakdown of equipment | | | Month/Day/Year | Signature |

Appendix 3

| Name of Spa: | Address: | Date: | |
|---|---|----------------------------------|----------------------------------|
| Spa Monthly Test Section 22 (1)(a)(b), 22(2)(a)(b) | | | |
| Month | Inspection of gravity and suction outlet covers, etc. | Emergency stop button | Vacuum release mechanism |
| January | Month/Day /Year Signature | Month/Day /Year Signature | Month/Day /Year Signature |
| February | Month/Day /Year Signature | Month/Day /Year Signature | Month/Day /Year Signature |
| March | Month/Day /Year Signature | Month/Day /Year Signature | Month/Day /Year Signature |
| April | Month/Day /Year Signature | Month/Day /Year Signature | Month/Day /Year Signature |
| May | Month/Day /Year Signature | Month/Day /Year Signature | Month/Day /Year Signature |
| June | Month/Day /Year Signature | Month/Day /Year Signature | Month/Day /Year Signature |
| July | Month/Day /Year Signature | Month/Day /Year Signature | Month/Day /Year Signature |
| August | Month/Day /Year Signature | Month/Day /Year Signature | Month/Day /Year Signature |
| September | Month/Day /Year Signature | Month/Day /Year Signature | Month/Day /Year Signature |
| October | Month/Day /Year Signature | Month/Day /Year Signature | Month/Day /Year Signature |
| November | Month/Day /Year Signature | Month/Day /Year Signature | Month/Day /Year Signature |
| December | Month/Day /Year Signature | Month/Day /Year Signature | Month/Day /Year Signature |

Appendix 4

| | | | |
|---|----------------------------------|----------------|----------------------------------|
| Name of Spa: | Address: | Date: | |
| Weekly Test for Cyanuric Acid Section 22 (1) (c) <i>(Note: for spas that use cyanurate stabilization)</i> | | | |
| Reading | Date | Reading | Date |
| | Signature | | Signature |
| mg/L | Month/Day/ Year Signature | mg/L | Month/Day/ Year Signature |
| mg/L | Month/Day/ Year Signature | mg/L | Month/Day/ Year Signature |
| mg/L | Month/Day/ Year Signature | mg/L | Month/Day/ Year Signature |
| mg/L | Month/Day/ Year Signature | mg/L | Month/Day/ Year Signature |
| mg/L | Month/Day/ Year Signature | mg/L | Month/Day/ Year Signature |
| mg/L | Month/Day/ Year Signature | mg/L | Month/Day/ Year Signature |
| mg/L | Month/Day/ Year Signature | mg/L | Month/Day/ Year Signature |
| mg/L | Month/Day/ Year Signature | mg/L | Month/Day/ Year Signature |
| mg/L | Month/Day/ Year Signature | mg/L | Month/Day/ Year Signature |
| mg/L | Month/Day/ Year Signature | mg/L | Month/Day/ Year Signature |
| mg/L | Month/Day/ Year Signature | mg/L | Month/Day/ Year Signature |

Appendix 5

| Public Spas Signage Required | Lettering Size Stroke size | Ontario Regulation section | Location posted |
|---|--|---|---|
| Timing device | 25mm with 5mm stroke | 9(2) | Posted at the timing device |
| Emergency Telephone is located at _____ | 25mm with 5mm stroke | 13 (2) | Posted in a conspicuous location near the entrance to the public spa |
| Emergency Telephone | 25mm with 5mm stroke | 13 (3) (a) | Posted at the emergency telephone |
| <u>Emergency Services</u> In Case of Emergency Speak Clearly and Slowly | 25mm with 5mm stroke | 13 (3) (b) 13(3) (c) | Posted at the emergency telephone |
| <ol style="list-style-type: none"> 1. Dial 911 2. Ask for emergency service 3. Give Location <ol style="list-style-type: none"> a. Name of Spa _____ b. Spa is located in the _____ of the building c. Address _____ d. Main intersection _____ 4. Give telephone number of spa _____ 5. State <ol style="list-style-type: none"> a. Type of Emergency b. Type of accident c. Number of victims <p style="text-align: right; margin-right: 50px;">_____</p> <p style="text-align: right; margin-right: 50px;">owner/operator</p> | | | |
| IN THE EVENT OF AN EMERGENCY PUSH EMERGENCY STOP BUTTON AND USE EMERGENCY PHONE. AN AUDIBLE AND VISUAL SIGNAL WILL ACTIVATE | 25mm with 5mm stroke | 14(2) | Posted above the emergency stop button |

| <p align="center">Public Spas Signage Required (continue)</p> | <p align="center">Lettering size</p> | <p align="center">Ont. Reg. section</p> | <p align="center">Location posted</p> |
|---|---|---|--|
| <p>DEEP AREA , SHALLOW AREA</p> | <p align="center">100mm</p> | <p align="center">15 (4)</p> | <p align="center">Appropriate locations on the deck For spas greater than three metres</p> |
| <p align="center">CAUTION</p> <p>Children under the age of 12 are not allowed in the spa unless supervised by a person who is 16 years of age or older.</p> <p>Pregnant women and persons with known health or medical conditions should consult with a physician before using a spa.</p> <p>Do not use the spa if you have an open sore or rash, or are experiencing nausea, vomiting or diarrhea.</p> <p>Overexposure may cause fainting. 10 to 15 minutes may be excessive for some individuals. Cool down periodically and leave the spa if nausea or dizziness occurs.</p> <p>Enter and exit the spa slowly, to prevent slipping.</p> <p>Do not play or swim near drains or suction devices. Your body, body parts, hair, jewelry and other objects may become trapped and cause injury or drowning. People with long hair should be especially careful.</p> <p>Do not enter or remain in a spa if a drain cover or suction fitting is loose, broken or missing. Immediately notify the spa operator.</p> <p>No food or beverage, except water, is permitted within the deck or spa. No glass containers of any kind are permitted within the deck or spa.</p> <p>Maximum Bather Capacity _____</p> | <p>50mm for Caution</p> <p>10mm for other wording</p> <p>both with 5mm stroke</p> | <p align="center">18(1)</p> <p align="center">18(2)</p> | <p align="center">Posted in a conspicuous place at each entrance to the public spa</p> |
| <p>Every bather shall take a cleansing shower using soap and warm water before entering the deck</p> | <p align="center">25mm</p> <p align="center">with 5mm stroke</p> | <p align="center">19(2)</p> | <p align="center">Post in a conspicuous location near every entrance to the deck</p> |

Appendix 6

Example of acceptable suction covers

FIGURE 3a. One type of Anti-Vortex Drain Cover. Notice the top of the cover is domed.

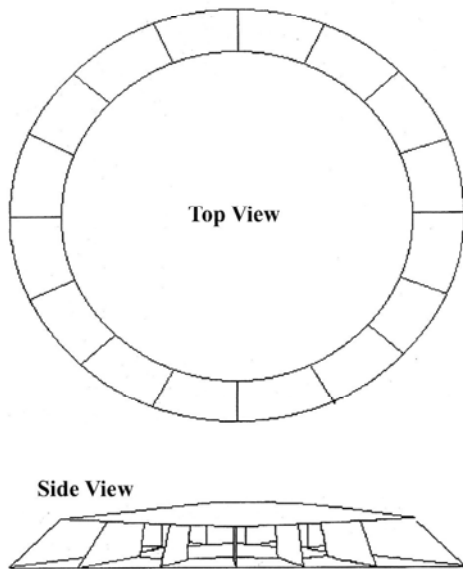


FIGURE 3b. Another type of design for Anti-Vortex Cover. Note again the domed top of the cover.

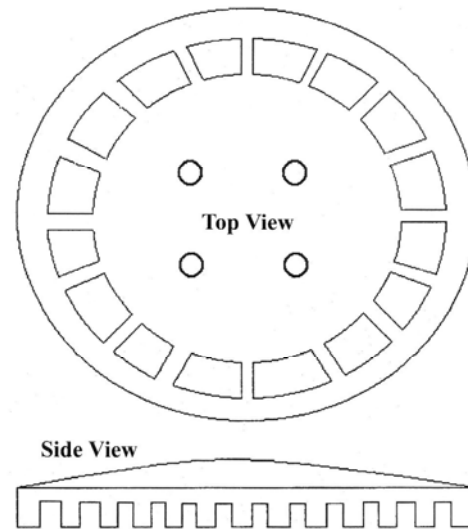
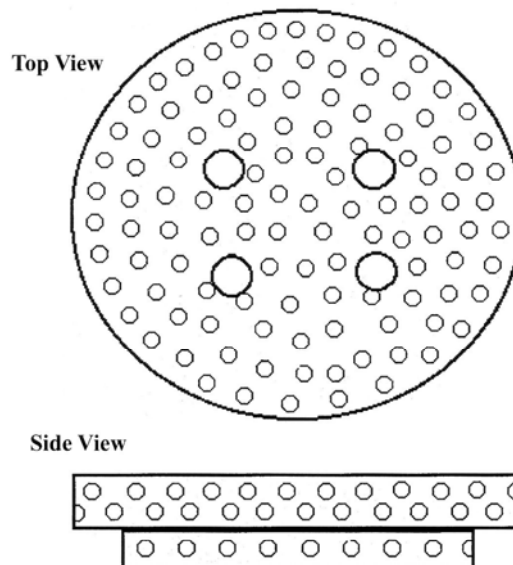


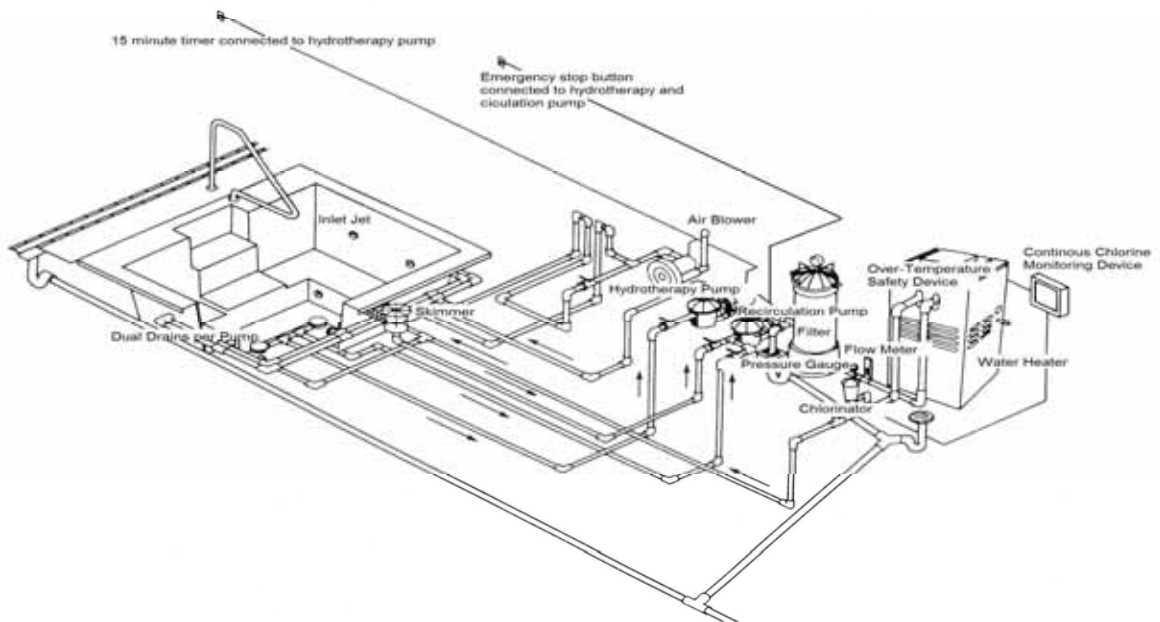
FIGURE 3c. Top and Side View of Suction Drain Cover. The top of the cover may or may not be domed.



Appendix 7

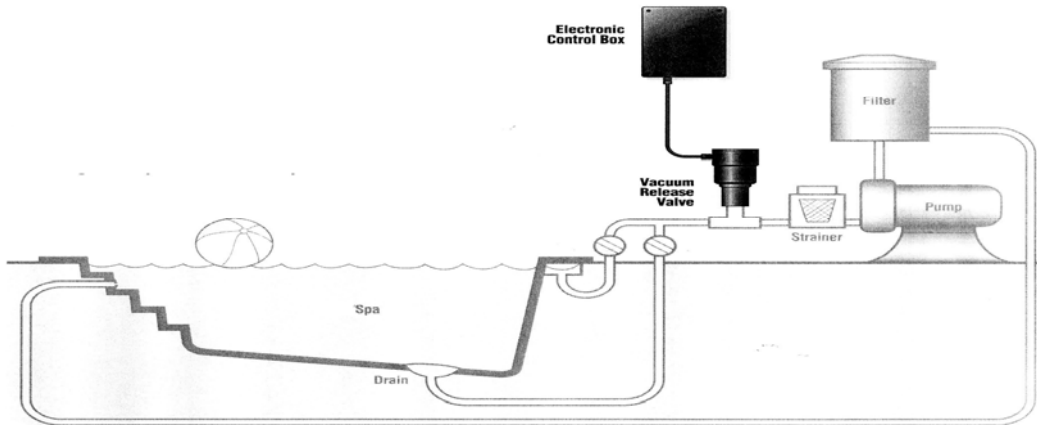
A Detailed view of a typical spa setup

View A



A detailed view of a typical spa setup

View B



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