

**SAFETY SUPERVISION
GUIDELINES
FOR
PUBLIC
SWIMMING POOLS
IN NOVA SCOTIA**



Safety Supervision Guidelines For Public Swimming Pools In Nova Scotia

Publication Date

This document has been produced with the support of the Nova Scotia Sport and Recreation Commission. Originally implemented in Sept. 1987, the first revision was completed in March, 1992, the second revision February 1998.

Endorsed By

- Recreation Facility Association of Nova Scotia
- Canadian Red Cross Society - Nova Scotia Region
- Lifesaving Society - Nova Scotia Branch
- Nova Scotia Department of Environment
- Recreation Association of Nova Scotia Funding

FOREWORD

This manual has been written to serve as a reference for persons associated with the operation of swimming pools in Nova Scotia. Its purpose is to address safety considerations with regard to the operation of pools. Detailed information on design, water quality and health standards is not included in this manual. This information, however, can be obtained through the Department of Environment's Department of Health: Guidelines for Swimming Pools (1987).

The information which follows has been developed by a committee with representation from the Recreation Facility Association of Nova Scotia, the Canadian Red Cross Society - Nova Scotia Region, the Lifesaving Society - Nova Scotia Branch, the Nova Scotia Department of Environment, the Nova Scotia Sport and Recreation Commission and the Recreation Association of Nova Scotia.

The standards presented in the manual have been developed through a number of sources including other provincial swimming pools guidelines and/or regulations and the Nova Scotia Department of Health: Guidelines for Swimming Pools (1987) and are based upon the current acceptable practice of swimming pools throughout Nova Scotia. These standards are considered to be a minimum for safe pool operation. The swimming pool owner is ultimately responsible for the safety of the pool patrons. Thus, the onus is on the owner or his/her designate to apply these standards to ensure that aquatic recreation is provided in a safe environment. These minimum standards may have to be exceeded to ensure safety in exceptional situations.

These guidelines will be reviewed and revised at least every five years. Any comments regarding the format of the manual or the information contained therein should be expressed to one of the representative agencies listed above.

We would like to thank the many volunteers involved in the development of these standards. We trust that their efforts are reflected in the quality of this manual.

The revision committee consisted of: Aileen Nauss, NLS Chair, Lifesaving Society - Nova Scotia Branch; Doug Williams, Nova Scotia Youth Centre; Peter MacDonald, Environmental Health Inspector-Department of the Environment, Ray Williams, N.S.C.C. Akerley Campus & RFANS; Paul D'Eon, Canadian Red Cross - Nova Scotia Region, Brian Noiles, RFANS.

SECTION I

DEFINITIONS

For the purpose of these safety supervision guidelines, unless the context otherwise requires, the following definitions will apply:

1. **"Swimming Pool" or "Pool"** means an artificially constructed body of water having a depth of 60 cm. (24 inches) or more and all auxiliary structures and equipment which is intended to be used for swimming, bathing, diving, therapy or other similar use and is operated by any person, be he or she the owner, lessee, operator, licensee or concessionaire, regardless of whether a fee is charged for such use.
2. For the purpose of supervision, swimming pools will be classified as follows:

Class I - Is any swimming pool available to the public, including municipal, community, institutional, athletic club, swimming club, YMCA, YWCA, Country Club, display pools and portable pools. These shall be referred to as "public pools".

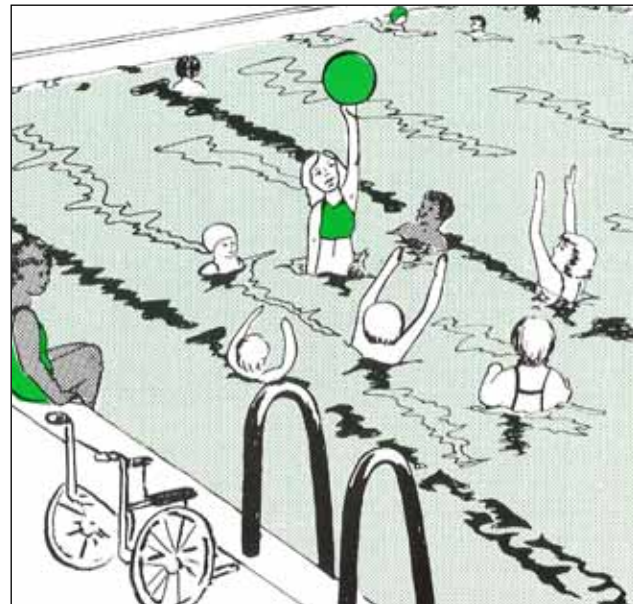
Class II - Is any swimming pool where use is restricted entirely to registered guests, tenants, occupants, and/or their guests such as a hotel, motel, health club, campground, and may include hot tubs and spas.

Class III - Is any swimming pool that is provided as part of an apartment building, condominium or trailer court.

Class IV - Is any swimming pool that is used expressly for cleansing of the body or the observance of religious rituals or other similar purposes.

Notwithstanding the above, classification may be designated by the Minister of Environment.

3. **"Wading Pool"** means an artificial pool of water, for non-swimming children only, intended for wading purposes, having a depth not exceeding 60 centimetres (24 inches).
4. **"Therapeutic Pool"** means a pool of water provided for physiotherapy treatment, including hubbard tanks, whirlpools, and hydrotherapy tanks (i.e. hot tubs).
5. **"Pool Manager"** means the person who is responsible for the day-to-day operation of the pool. The pool manager and/or designated pool manager function under the authority of the pool owner.
6. **"Lifeguard"** means a person holding specific qualifications (see p. 6) appointed by the pool manager to ensure the safety of bathers while they are in the swimming area.



7. **"Assistant Lifeguard"** means a person holding specific qualifications (see p. 6) appointed by the pool manager to assist a lifeguard in the safety supervision of a swimming area.

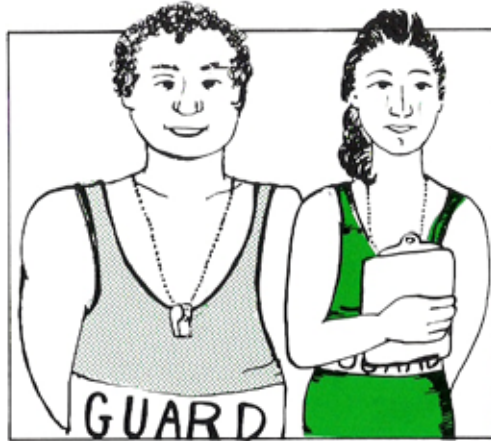
8. **"Instructor"** means a person appointed by the pool manager to teach a specific skill or skills to one or more persons in the swimming pool area.
9. **"Bather"** refers to people who enter the swimming pool facility with the intention of swimming, diving, bathing, or otherwise using the water for their personal use.
10. **"Bather Load"** means the maximum number of bathers allowed in or on the water of a swimming pool at any one time.

SECTION II SUPERVISION STANDARDS - CLASS I POOLS

a) Qualifications

i) Lifeguard

- Lifesaving Society - National Lifeguard Service Certification,
- one of St. John's Ambulance Standard First Aid, Life Saving Society Canada Aquatic Emergency Care, Canadian Red Cross Society Standard First Aid or other certification deemed appropriate by the Minister of Environment.



ii) Assistant Lifeguard

- minimum 16 years of age and
- Lifesaving Society Bronze Cross Award.

The above certifications must be current on the date of active duty and must be kept current throughout the period of employment as a lifeguard.

b) Guard to Bather Ratio

The minimum number of lifeguards on the swimming pool deck whose primary responsibility shall be the safety of bathers shall be as follows:

Number of Bathers	Lifeguards	Assistant Lifeguards
1 - 50	1	0
51 - 100	1	1
101 - 200	1	2
201 - 300	2	2

This Guard to Bather Ratio represents a minimum standard. In special circumstances (e.g. pool design, equipment usage or ability of patrons) more lifeguards may be required to be on duty to maintain a safe level of supervision.

AT LEAST ONE LIFEGUARD SHALL BE ON DUTY WHEN THE POOL IS OPEN TO THE PUBLIC.

When only one lifeguard is on duty, this lifeguard shall have a back up person who is:

- familiar with the pool's emergency procedures;
- is a qualified first aider* (* one of St. John's Ambulance Standard First Aid, Lifesaving Society Aquatic Emergency Care, Canadian Red Cross Society Standard First Aid or other certification deemed appropriate by the Minister of Environment.);
- available in the facility and who is readily accessible in the event of an emergency (i.e. receptionist, maintenance, or security personnel, etc.).

In the event of only one (1) lifeguard on duty, an emergency contingency plan will be in place.

The intent of the phrase "whose primary responsibility shall be the safety of bathers" is to allow lifeguards to perform the required public relations and education functions necessary to be effective in the performance of their jobs. It is not intended to permit the lifeguard to perform administrative, programming or maintenance tasks or any other activity which would direct his/her attention away from the safety of bathers.

c) Instructional Supervision

"During instructional classes, in a pool environment, the instructor must be certified by the appropriate agency for the program being offered and hold a minimum of assistant lifeguard qualifications. If they do not hold a minimum of assistant lifeguard qualification then a person with a least assistant lifeguard qualifications must be present on deck."

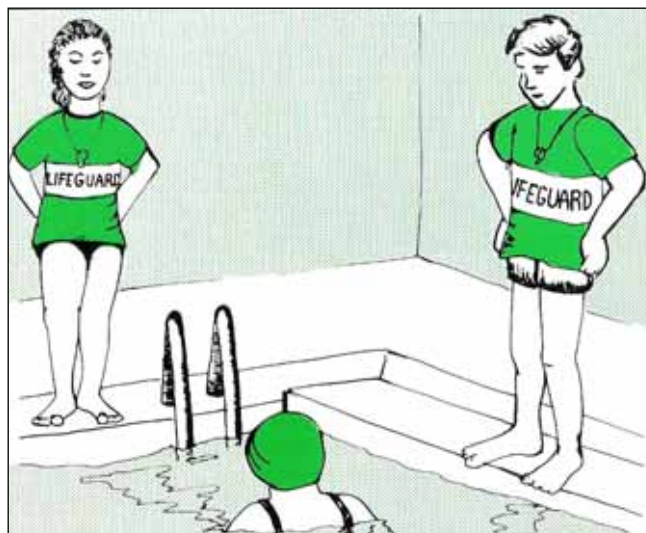
In the event of a recognized Competitive Team practice or program, the ratio of lifeguards/assistant lifeguards shall be as follows:

Number of Bathers	Lifeguards	Assistant Lifeguards
1 - 50	0	1
Over 50	1	1

(A coach with Assistant Lifeguard certification is acceptable)

d) Lifeguard Uniforms

Lifeguards shall be readily identifiable to members of the public. The adoption of similar singlets and/or hats, etc. as a uniform is an acceptable method. The word "lifeguard", "supervisor", "guard", or "staff" shall appear on this clothing. Similar swimwear is not distinctive enough to differentiate lifeguards from the general public.



e) Maintaining Supervision

When more than one lifeguard is on duty, a lifeguard may be absent momentarily from the pool deck to attend to other duties. If it becomes evident that this absence is going to

be longer than a few minutes and the level of supervision does not meet the requirements of Section II(c), the pool shall be cleared or numbers of bathers reduced until such a time as the requirements of Section II(c) are met.

The onus remains on the pool manager to ensure that the safety of bathers is not compromised as a result of a lifeguard leaving the deck momentarily.

f) Staff Training

All lifeguards, assistant lifeguards and instructors shall receive an initial orientation prior to duty. This orientation shall include emergency procedures, written job requirements and other necessary information pertinent to the performance of their required duties. In-service training ensuring that emergency procedures are current shall take place periodically but not less than once a year for all staff.



SECTION III

EMERGENCY PREPARATION

CLASS I POOLS

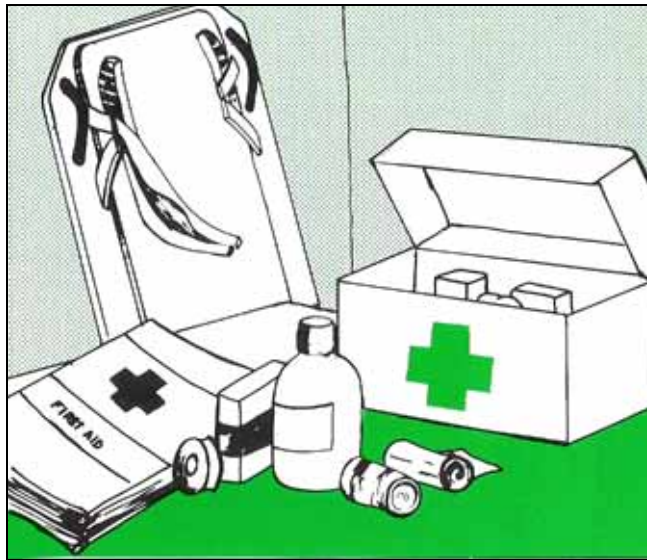
a) Emergency Communication

Every Class I (Public) Pool shall have quick access to a telephone. The 911 Emergency phone number shall be posted in a highly visible location near the telephone. DIAL 911 FOR ALL EMERGENCIES. (A list of other important phone numbers including pool manager, owner, building superintendent etc. should be displayed near the telephone.)

b) Rescue Equipment

Every swimming pool shall have:

- a spinal board or similar device designed to transport a person who has a suspected spinal injury,
- one or more blankets, and
- a first aid kit appropriately equipped for aquatic emergencies.



c) Emergency Sound Signal

All swimming pools shall be equipped with an audible sound signal to alert bathers of an emergency situation. Examples of these are whistles, air horns, public address systems, loud hailers and buzzers.

d) Special Needs Groups

A contingency plan may have to be devised to address the requirements of special needs groups (e.g. hearing impaired, disabled).

e) Water Rescue Aids

At least two appropriate rescue aids shall be available at all times for use by lifeguards in the event of a water rescue.

f) Lifeguard Positioning

Where it is not possible for one lifeguard to view the entire pool tank, an elevated chair shall be provided so that the entire pool can be viewed. However, if more than one lifeguard is on duty and these lifeguards can collectively view the entire pool, no elevated chair is required.

g) Emergency Procedures

Every pool shall have written procedures for emergencies including, but not limited to, fire, drowning, spinal injury, power failure and contact of emergency medical services. These written procedures shall outline the rules and responsibilities for each staff member on duty in the event of such an emergency.

SECTION IV WATER QUALITY

a) Water Clarity

The pool manager shall ensure that water clarity will be such that a black disc, 15 cm in diameter on a white background, located on the bottom of the pool at its deepest point can be clearly visible from any point on the deck up to 9 meters away from the disc while the pool is in operation.



b) Lighting

There shall be sufficient amount of light for the lifeguard(s) to view the entire pool area. For more information regarding lighting in pools, please refer to the Department of Environment "Nova Scotia Department of Health: Guidelines for Swimming Pools."

c) Water Depth

Depth of water must be plainly marked on the edge of the deck next to the pool in letters at least 20 cm in height of a contrasting colour at the minimum and maximum points, at drop off areas and at intermediate increments of depth spaced at not more than 7.5 m intervals.

d) Bather Loads

Bather loads will not exceed 1.40 square meters per person where water depth is less than 1.40 meters and 2.30 square meters per person where water depth exceeds 1.40 meters.

e) Water Quality (Note: For more complete information, please refer to the Nova Scotia Department of Health: Guidelines for Swimming Pools (1987)).

In the event of persons experiencing infections due to suspected water/air quality, the pool manager is advised to contact the Department of Environment.

All pools shall be designed to circulate water continuously. The flow rate of recirculating water should be such that the complete water turnover time is six hours.

Adequate and appropriate feeding and regulating equipment for introducing a disinfectant into the pool water recirculation system shall be provided.

Recommended chemical readings and frequency of tests are as follows:

Chemical	Frequency of Test	Recommended Range
(FAC) Chlorine	4 hours	1.0 - 2.0 ppm
PH	4 hours	7.2 - 7.8
Alkalinity	WEEKLY	80 - 120 ppm
Calcium Hardness	WEEKLY	200 - 275 ppm

SECTION V

OTHER SAFETY CONSIDERATIONS

a) Record Keeping

Operation records shall be retained for at the least two years and should include:

- number of bathers per day,
- disinfectant level (i.e. chlorine/bromine), PH, and temperature readings of the pool water,
- all accidents and/or injuries that have occurred at the pool,
- the amount and type of chemicals used at the pool,
- a photocopy of required staff certifications for all staff to ensure that all qualifications are current at the time of active duty, and
- for liability reasons, a detailed, complete account of all MAJOR ACCIDENTS should be retained for a ten year period.

b) Recreational/Maintenance Equipment

Any recreational equipment used by the pool shall be checked by the Lifeguard/Assistant Lifeguard on a regular basis. This equipment will be evaluated for hazards, and bathers will be informed as to its proper and safe use. Recreational equipment shall be installed in a manner that the use of such equipment shall not constitute a danger to the user or other bathers. This equipment shall not contain any protrusions, means of entanglement or obstruction that may cause harm to a bather.

Any recreational equipment not regulated by existing legislation shall be installed and maintained according to the manufacturer's specifications.

Maintenance equipment used by the pool shall be subject to regular inspection to be evaluated for potential hazards. Vigilant inspection of equipment which could cause potential underwater entrapment and entanglement shall be inspected regularly (tg. maindrains and equilizer lines on pool skimmers).

c) Training

Regular and appropriate training of pool staff shall be carried out so as to educate and make staff aware of safety considerations pertaining to their facility.

SECTION VI

RISK MANAGEMENT

Accidents in pools will inevitably occur. The following steps can be taken to reduce the risks of an accident and to reduce one's liability when an accident does occur.

1. **Hiring Procedures:** Hire only qualified staff. Have written job descriptions defining specific responsibilities. Supply staff with written policies and procedures in order to avoid confusion on how to perform tasks. Ask to see proof of qualifications and always photocopy and store these. Record expiry dates of qualifications in a personal log book which is checked on a regular basis to ensure that qualifications are kept current. Know what qualifications are required for each specific job.
2. **Documentation:** Records can be very important in the event of an accident. "Good records might save you, proper records can discredit you and no records can destroy you."¹ It can be very easy to prove that an employee failed to meet established procedures if these procedures are written down. If they are not, it is difficult to prove what, in fact, is an established procedure. Records such as in-service sessions, equipment checks, accidents, bather loads and maintenance procedures can prove invaluable in the event of legal involvement.
3. **Insurance:** Most aquatic programmes are presently going through a very difficult time in attempting to renew or obtain liability insurance. This insurance is designed to protect the program in the event of third party action against the specific facility. According to a 1977 survey conducted by the Recreation Association of Nova Scotia, "almost all municipal policies provided coverage for their employees between \$500,000 and \$2,000,000 ... It was evident that the amount of coverage (or lack of it) was often dependent upon the costs of the insurance premiums."² As a result, inadequate coverage may exist in the event of an accident. It is important that your individual program insurance policy be examined on a periodic basis.
4. **Waiver Forms:** If properly prepared and appropriately administered, waiver forms can effectively minimize liability. However, these forms certainly will not eliminate the issuer of his or her responsibility to prevent foreseeable accidents.
5. **Education of Participants:** Ensuring that the persons who use aquatic facilities are aware of the particular dangers can reduce the number of accidents. Ensuring that rule signs are placed appropriately and that they are followed will go a long way in proving that prudent administration exists.
6. **Safety as a Value:** Participation in aquatic activities involves an element of risk. People associated with the operation of swimming pools must understand and manage these risks. Risk management is the responsibility of all staff/management, lifeguards, instructors, technicians and maintenance. We all have a shared responsibility for making our facilities safe and healthy. A copy of the Nova Scotia Occupational Health and Safety Act (enacted in 1997) is a valuable resource and should be available at every facility. Safety as a value, must permeate the entire organization.

1. Marshall, T.D. Note Making, C.P.R. and Liability, May 3, 1978.

2. Legal Liability In The Recreation Setting, Recreation Association of Nova Scotia (1980).

SECTION VII

RESOURCES

Agency Contact Numbers

- Recreation Facility Association of Nova Scotia 902-425-5450 ext 330
- Lifesaving Society - Nova Scotia Branch 902-425-5450 ext 331
- Canadian Red Cross Society - Nova Scotia Region 902-423-9181
- Nova Scotia Department of Environment 902-424-5300
- Nova Scotia Sport and Recreation Commission 902-424-7512
- Recreation Association of Nova Scotia 902-425-5450 ext 343 Publications (Available through RFANS Office)
- Dept. of Environment - Department of Health: Guidelines for Swimming Pools (1987) (no charge)
- NS Occupational Health and Safety Act (no charge)
- Swimming Pool Operations: A Framework for Action (video) (loan only)
- Pool-Spa Operators Handbook - NSPF (\$50.00)
- PEI Guide to Swimming Pool Policies and Procedures (no charge)
- Legal Liability & Risk Management; Goodman & McGregor (\$30.00)
- Safety Supervision Guidelines For Waterfronts in Nova Scotia (no charge)