



February 17, 2011

Mr. Tim Lambert
Executive Director – Health Promotion Branch
Ministry of Health Services
Government of British Columbia
PO Box 9067, Stn Prov Govt
Victoria, BC V8W 9E2

Dear Mr. Lambert,

Thank you for the opportunity to provide input on the Pool Operation and Pool Design Guideline documents meant to accompany the new BC Pool Regulation. In order to gather input from the aquatics field in BC, the Lifesaving Society and BC Recreation and Parks Association collaborated to distribute a survey on November 1, 2010 with a December 10 deadline, allowing six weeks for input. We received 36 responses to the Operations document and 12 responses to the Design document with the majority of the respondents replying on behalf of their municipality.

The following letter outlines specific comments and suggestions for both the Operation and Design Guideline documents; however, there are two areas of significant concern that warrant additional emphasis:

- 1) Within the Regulation, Part 3, Section 8 (2)f prohibits “diving into the pool in water that is less than 2 m deep” creates a serious issue for existing pools that have operated for several years allowing diving into water depth of less than 2 m. Additional groups substantially affected are competitive swimmers, clubs and pools hosting them. In this case, a clear exemption should be provided that allows these groups to defer to FINA regulations.

It should also be noted that the depth diagram contained in the Swimming Pool Data Sheets Appendix should be removed. Based on the experience of many pools and as noted in a 1994 letter from Delta Facilities Manager, Michael Harris, to then Regional Engineer, Don Miller, the depths stated are inadequate. Section 21 of the previous regulation defers to FINA for “diving platforms over 3 m in height.”

- 2) The lack of specified training standards in the regulation and guidelines pertaining to both lifeguards and pool operators poses significant risk.
- a. Lifeguard qualifications and training either in the regulation or the guidelines is a major step backward from the industry standard of National Lifeguard Service (NLS) training that has been accepted over the past several years.
Despite the “increased opportunities” and “TILMA” rationale provided in the Q & A document distributed with the Guidelines, we feel strongly that not ensuring that a consistent and proven level of lifeguard training is in place runs contrary to the Ministry’s mandate of ensuring public safety.

A variety of agencies providing a variety of training programs will create a variety of skill sets potentially within the same aquatic facility. When an emergency occurs, the teamwork and consistent approach essential to good treatment will be jeopardized and the public will suffer.

- b. The Regulation specifies minimum competencies, course content and course duration for a basic and advanced course for Pool Operators; however, respondents indicated that a clearer standard for Pool Operator training is needed to ensure that all Pool Operators receive adequate training. Significant concern exists around the ability of Health Officers to review training on an individual basis and the implications of whether the level of knowledge required for Pool Operators will be maintained at an adequate level in the absence of a clear standard course and/or exam.

Operation Guidelines

The Operations Guidelines document provides much needed clarity to the new Regulation; however, overall, there is concern that the document contains mixed content moving from repetition of regulation to guidelines, nice-to-dos, prescriptive content, editorializing and pool operator course material. A clearer format is preferred that would provide the operator with clear direction. Specific recommendations/comments are as follows:

Section A2. Signage and Pool Rules

- Add prohibition of those “with flu-like symptoms including vomiting and diarrhea and for 48 hours after cessation of such symptoms.”
- Add “Infants and toddlers must wear swim diapers and/or elastic swim pants.”
- Delete prohibition of “Contaminating or fouling the pool.” If the previous two items are added, there is not a need to state the obvious. There was strong

disagreement with a requirement to include this wording on a rules sign as patrons enter the facility.

- Delete vague statement (bullet 6) “Failing to supervise children for whom one is responsible while in the pool enclosure” in favour of the clearer bullet stating that “all children under seven years of age be closely supervised.” There was some suggestion that 15 years old be the age of a responsible person as many day camps have leaders at 15 years.
- Add “Except in approved circumstances” to rule prohibiting “Diving into pool in water that is less than 2 metres deep.” We understand that there may be some flexibility on this rule when competitive swimmers trained in shallow diving may be concerned.

Additional Signage Instructions for Hot Tubs

- Second bullet, delete “away from all underwater fittings, especially suction fittings” as there should be no suction fittings present.
- Delete third bullet as it’s unrealistic to expect a minimum of two people in the hot tub at all times. If it is a supervised hot tub, single person use should be allowed. This rule would create a major public relations challenge.
- Add “Do not submerge head into water.”
- Delete “Do not totally immerse your body.”

Section A4. Cleanliness

- Add “disinfected at least daily” to “Walkways, pool aprons . . .”
- Add guidance on strength of disinfectant required.

Section B2. Testing Water Parameters

- Add calcium hardness to Table 2.1, with testing frequency being the same as for alkalinity.
- Contradiction in testing frequency of combined chlorine in Table 2.1; ‘Minimum Frequency in Regulation’ column states “at least twice daily” yet ‘Recommendation for Most Pools’ column states “daily”. Both columns should state “daily”.
- Add note in Table 2.1 that cyanuric acid is for outdoor pool use only.

Section B3. Chemical Testing Equipment

- Define ‘suitable testing equipment’.

Section B4. Records

- Add “Mechanical Equipment Maintenance” to list of “Records must include.”
- Define ‘readily available’; does this mean on-site?
- “A sample record sheet is found in Appendix B” should read “Appendix C.”

Section B5. Water Clarity

- Add pool turnover time requirements.

Section B6. Water Temperature

- Delete second paragraph as FINA regulations refer to pools used solely for competitive swimming. These temperature guidelines are not reasonable for a typical pool used 1 or 2 hours each day for competitive swimming and used for public swimming and lessons for the remainder of the day.

Section B7. Water Microbiology

- Define “routine testing” for coliform, fecal coliform, pseudomonas and e coli.

Section B9. Chlorine Disinfectant

- Minimum FAC should be raised to 1.0 for main pools and 2.0 for warmer pools.
- In Table 2.2, revise heading for Column 3 to “30 to 35C” and add Column 4 for “36 to 40C” showing a minimum of 3.0 FAC.
- Regulation (Section 10.2.g) states that combined chlorine must be tested twice daily; once daily is adequate especially considering that adding chemicals to reduce can only be done outside of operating hours.

Section B10. Ozone

- Add section on ultraviolet method of disinfection.

Section B13. Other Chemicals, Measures and Considerations

- In Table 2.4 add maximum allowable levels.

Section C1. Operator Training

- Increase “3 months” to “6 months” for recommended period for maintenance technician to be on site prior to pool opening date.
- Clarify as to whether a qualified person must be on site at all times.
- Concern regarding the authority/expertise of local health authority to identify qualifications, develop core elements of training and review existing training courses.

- Preference is stated for a clearer identification of a standard, especially as BCRPA has invested significantly to develop an industry standard for Pool Operator training.

Section D1. Pool Safety Plans

- Template requested by many respondents.
 - (Lifesaving Society to provide based on input from Ministry staff)
- Requirement for storage of moveable equipment when not in use provides challenge to existing older pools with limited storage space.
- Pools connected to arenas (and where pool staff are responsible for emergency response to the arena) should also have an emergency procedure for ammonia.

Section D2. Procedures for Serious Injury, Emergency or Incident

- Concern that including detailed procedures may increase liability if incident occurs and exact procedures are not followed. More reasonable to state principles of treatment.

Section D3. Lifesaving and First Aid Equipment

- c) Need for designated emergency phone is unreasonable and creates major cost item for small outdoor pools; is it meant for public or staff use?

Section D4. Lifeguards and Supervision

a) Unsupervised Pools

- Hotels that invite general public to use their pool for a fee should require lifeguards.
- Regulation Section 17(3) indicates that lifeguards are not required when members of a private club are using the pool. This means that clubs such as Hollyburn and Arbutus do not require lifeguards? This represents a major step backward in ensuring public safety.
- Strong concern expressed about the liability and risk involved with not requiring lifeguard supervision for the use of a pool by rentals and school groups.

b) Minimum Staff Requirements

- Define “on duty”; on pool deck or on shift?
- Define “assistant” better; appears to indicate assistant lifeguard and should therefore have higher training standard than what is stated.
- Preference from some that a second lifeguard be required as a minimum staffing level rather than one lifeguard and one assistant.

d) Lifeguard Qualifications

- Very weak wording for lifeguard qualifications. NLS should be indicated as the minimum lifeguard qualification as it is the industry standard. Current wording allows for possibility of inferior training being allowed, putting public safety at risk.
- Minimum age for lifeguard working alone should remain at 17 years old as in previous regulation.
- Possible to allow lower qualification (eg. Bronze Cross) for waterslide attendant.
- Define “regular” in-service training.

Section D5. Operating Procedures

- Concern with the statement that a “distinction should be made between the work done by lifeguards, maintenance staff and custodians” as teamwork between these departments is often seen and documenting a clear delineation will detract from this.

Section D6. Cleanliness

- Unsure of reference to need for “lockdown” during cleaning procedures.

Section D7. Maintenance

- Depth markings should be required to be in metric only.
- Remove reference to testing for slip-resistant surfaces; proven to be ineffective and has no practical application.

Section D8. Gas Chlorine Operation and Maintenance

- Define “qualified technician”.
- Define “pigtail”.

Appendix H – Fecal Accident Clean-up Procedure

- Procedure B 4. states CT value of 9600; CDC in US changed minimum to 15,300 in 2008.

Design Guidelines

The Design Guidelines document provides much needed clarity to the new Regulation; however, overall, there is concern that there are a wide variety of pool designs that do not easily fit into many of the guidelines and that an appeal process may be necessary to allow for reasonable deviations from the guidelines. In addition, all relevant guideline items should be consistent with and support the use of BC codes (Building, Plumbing, Electrical, etc.). Specific recommendations/comments are as follows:

Section A – Pool Design/Construction Standards

Deck and Walkway Design

- Is the 1.22 m (4 feet) meant to be beyond the pool edge or flush gutters? As flush gutters often extend up to .5 meters from the pool edge, this would require minimum deck space of 1.72 m (over 5.5 ft). Should be consistent with BC Building Code.
- Refer to ASTM standard for toe entrapment, especially relating to gutters.

Surfaces and Other Deck Considerations

- In the 'Further consideration' section under the tiles heading, section c) provides reference to "seating areas along stretches of walk ways for those who may tire easily when walking long distances" which is unreasonable for pools such as a 50 metre competition pool.
- Need section here or elsewhere to address moveable floors and related entrapment hazards.
- Need section here or elsewhere to address surf simulators.
- Need section here or elsewhere to address bulkheads.

Depth Markings

- Strong disagreement with need for imperial depth markings.

Lighting

- Should include some reference to glare.

Ground Fault Interrupters

- "Should be installed" should read "Must be installed".

Lifeguard Stands

- Strong agreement with elimination of need for lifeguard stands.

Pool Basin

Lifts and Hoists

- Clarify need for 1.2 m deck space around lift or hoist. Does this mean 1.2 m around all sides, therefore at least a 2.4 m deck?

Handrails and Guardrails

- Concern regarding need for netting to prevent falls as risk managers have advised against this due to possibility of entanglement.
- Add mention for the need for non-slip handrails and guardrails.

Change Rooms, Plumbing Fixtures and Other Considerations

- Plumbing fixtures table should be consistent with BC Building Code.
- Table should also be based on bather load, not building occupancy load.
- How are universal washrooms/changerooms in the table?

Temperature of Shower Water

- Refer to BC Plumbing Code requirements.

Air Quality, Humidity, HVAC systems

- Need to define 'qualified personnel'.

Section B - Circulation System**General Circulation Requirements including Water Quality**

- Turnover periods should delineate between types of pools and based on the use of the pool eg. main pool vs. spray pool.
- 'No Cross-connection' section appears to contradict earlier section 'Multiple Pools' which states, "Where water from one pool is used to fill another" which seems to allow this practice.

Gutters and Skimmers

- Add comment about ensuring gutters and skimmers are kept in a condition to prevent tripping or fall-through hazards.

Suction Hazards

- Separate parameters for spray pools/pads should be included here or in a separate section taking zero depth situations into consideration.

Maximum Bathing Load

- Separate bathing load calculation for spray pools/pads should be included here or in a separate section taking zero depth situations into consideration.

Measurement of Circulation, Automatic Disinfection and Chemical Feed

- Separate parameters for spray pools/pads should be included here or in a separate section eg. flow rate indicator on filter loop side only; disinfection feed rate; pH, etc.

Other Disinfectants and Considerations

- Consider lower minimum such as 49 mJ/cm² as per California Code.

Play Equipment

- Add 'f) location not to interfere with lifeguard visibility/access'.
- Reference existing ASTM standards.

Pool Slides

- Add 'e) location not to interfere with lifeguard visibility/access'.
- Reference existing ASTM standards.

Waterslide Landing Pools

- Section should be labeled simply 'Waterslides' as there is only one reference to landing pools.
- Reference existing ASTM standards.

Wading and Spray Pools – General Requirements

- Spray pools (aka aquatic spray pads) should be a separate section from wading pools as they are quite different structures with different uses that require different treatment.
- Guideline b) should also include height restrictions for features to prevent trip hazards; for instance, either flush with grade or higher than 900 mm.
- Spray pools turnover time should be 30 minutes or less, not 2 hours.
- Include requirement for holding tank for spray pool eg. 10 times maximum flow rate such as dictated in California standard.

On behalf of BCRPA and the Lifesaving Society we would like to reiterate our support for the swimming pool regulation and guideline revisions process. Both agencies remain eager to be involved during the guideline revision process and would be pleased to assist your Ministry with the incorporation of the comments and recommendations resulting from the consultations within our industry that are put forth in this letter. If further clarity is needed on any of the issues raised we would be pleased to arrange a joint meeting to discuss how to best address the items, otherwise we would very much appreciate an update on the expected process and timelines you are working with.

We look forward to working with the Ministry to ensure the best possible documents are provided to pool operators and that public safety is the highest consideration.

Yours sincerely,



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