

POOL STANDARDS UPDATE FOR OPERATORS

ALBERTA'S POOL STANDARDS HAVE BEEN UPDATED

The *Pool Standards July 2014* have been revised and have been replaced with the *Pool Standards July 2014 (amended 2017)*. The Standards have been updated to increase clarification of existing requirements, improve flexibility and refine protective requirements for entrapment risks and the response to fecal incidents in outdoor pools.

The Standards continue to focus on water quality indicators such as clarity, water chemistry and the absence of bacteria.

WHEN DID THE NEW POOL STANDARDS COME INTO EFFECT?

The new Standards came into effect on August 24, 2017. Section 9.3 and 9.4, related to anti-entrapment, will not come into effect until November 30, 2019. This allows operators time to meet these new requirements.

There are no changes to the Public Swimming Pools Regulation.

The Pool Standards are available at: www.health.alberta.ca/about/health-legislation.html

GENERAL CHANGES

- **Monitoring length of stay in steam and dry saunas:** Clocks were failing in the moist and hot environment of a steam sauna and so the strict requirement for a clock has been removed and replaced with options which help patrons monitor their time. Operators may choose clocks or other timing devices that use sound or light.
- **Clarifying requirements for soap and temperature at showers:** Showers strictly used for cooling off from a hot pool or used only for rinsing between pools, do not need to have soap or be maintained between 35 and 45 C.
- **Allowing lower recirculation rates for older pools (constructed before November 30, 2006):** Lower recirculation rates may be allowed in older whirlpools and water slide receiving pools if good water quality can be maintained.
- **Ensuring that turnover periods apply to all connected basins and water slide receiving pools:** Water slide receiving pools had been missed in this section previously.
- **Extending maximum filtration rate for high rate sand filters:** The maximum filtration rate of 10 litres per second per square meter (15 US gallons per minute per square foot)

for high rate sand filters applies to water slide receiving pools, wading pools and recirculating water spray parks.

- **Allowing higher filtration rates for pools constructed prior to November 30, 2006:** This gives flexibility to older pools where the filtration rates meet manufacturers' specifications and where water quality criteria are satisfied.
- **Expanding range of total alkalinity:** Systems will now be allowed to operate at 60 – 180 mg/L, or outside this range where good water quality can be maintained. The former range has been an issue for small volume pools, pools with high turbulence and pools using source water with high alkalinity.
- **Requiring records of pump maintenance:** It is important to track and record work done on pumps, since the maintenance can affect flow rate, recirculation, turnovers and entrapment risk.

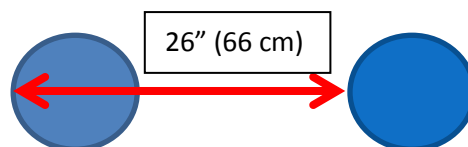
ANTI-ENTRAPMENT CHANGES

Alberta has adopted a more current and protective approach for the assessment of entrapment risks to bathers, as set out by the anti-entrapment expert committee for the United States Model Aquatic Health Code. The Standards have been revised in the following ways:

- **Replace the word 'velocity' with 'flow rate'.** The 'flow rate' across the drain cover is now recognized as the critical factor when assessing entrapment risk. Each cover that is installed must be certified to handle the maximum flow rate of the system. 'Maximum flow rate' means the highest possible water flow through a fully submerged suction system with the pump operating at full speed.

For your information: A health inspector can provide you with an audit form which offers straightforward steps on assessing entrapment risks. An engineer or pool service company may be required to assist you.

- **Removal of the exception for pools built prior to 2006 with 2 outlets which allowed 50% of flow through each drain.** In new pools and old, both outlets must now be able to accommodate 100% of the flow. Operators will need to re-assess the flow rate across all submerged suction outlets in existing pools with two or more outlets.
- **Guidance added on how to measure the distance between suction outlets.** The distance between outlets must be greater than 26 inches (66 centimeters) from the outside edge of one cover to the inside edge of the adjacent cover. It allows suction outlets to be located closer together and still adequately protects the patron (bather).



- **Exemption of some suction outlets.** Outlets which are located on different planes (not installed in a seating area) will be exempted from the 26” spacing requirement. Entrapment is highly unlikely when outlets are located on different planes (i.e. a pool floor and wall).
- Require gravity drain systems if relied on as a secondary anti-entrapment system to be approved by a professional engineer.
- **Add the definition for “blockable suction outlets.** Blockable suction outlet has now been defined to provide a more precise description as per the recognized certifying body (ANSI/APSP).
- **Require immediate closure if a suction outlet cover is broken or missing or if the entrapment system is not working properly.** A provision was also added whereby, despite a broken, damaged or missing cover, the swimming pool may remain open if the health inspector is satisfied that the facility can adequately protect bathers.
- Covers continue to be required on equalizer and vacuum outlets, but don’t need to be certified. These covers are not required to meet ANSI performance standards but must still be routinely checked during a daily inspection to make sure that they are not cracked, broken or missing.

***Note:** The new reference to ASME/ANSI A122.19.17 (dealing with entrapment best practices) no longer includes ‘2010’*

WHEN DO ENTRAPMENT REQUIREMENTS COME INTO EFFECT?

Compliance with the entrapment requirements has been extended for 2 more years to November 30, 2019. This will allow facilities time to review and re-assess their systems and, in a few cases, install new suction outlet covers or secondary systems

CONTAMINATION RESPONSE CHANGES

Diarrhea Contamination Management in Outdoor Pools

The use of cyanuric acid (stabilizer) in outdoors pools can significantly reduce the ability of the chlorine to kill parasites that may be found in diarrhea. The United States Centers for Disease Control now recommends reducing the levels of cyanuric acid to enhance the destruction of parasites

In the event of a fecal accident, the Standard now indicates that an outdoor pool using cyanuric acid must lower the cyanuric acid levels to 15 mg/L or less, and raise the chlorine to either:

- 20 mg/L for 28 hours,
- 30 mg/l for 18 hours, or
- 40 mg/L for 8.5 hours

NOTE: Any water features or pools attached to a contaminated pool (indoor or outdoor) must be cleaned and treated in the same manner.

UPDATES TO SAFETY PLANS AND SIGNS

- A facility's safety and supervision plan must be based on current industry best practices. Best practices are readily available through the Lifesaving Society or the Canadian Red Cross.
- Reference to the location and use of signs, languages and pictures in facility education plans has been deleted. All signs must still 'convey' the rules and information in a size, location and manner that is most effective for each facility.

DEFINITION OF SECONDARY DISINFECTION

The expected level of parasite reduction for secondary disinfection systems had not previously been defined in the Standards. For a secondary disinfection system to reliably and adequately disinfect pool water after a liquid fecal contamination event, it must be designed to achieve a minimum 3-log (99.9%) reduction of *Cryptosporidium* oocysts.

How Will the Standards be Enforced?

Your Public Health Inspector will continue to conduct inspections and discuss and answer questions you may have regarding the changes to the Pool Standards.

To obtain a copy of the Pool Standards, please visit:

www.health.alberta.ca/about/health-legislation.html

For more information, please contact your nearest Environmental Public Health office.

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