



Clearances for Swimming Pools

Electrical safety around swimming pools, hot tubs, and water features is critical, as the combination of water and electricity can create dangerous and unintended paths of electric current. Installations of in-ground and above ground swimming pools typically require a permit from the city. The city permitting department, pool and spa contractors, and property owners must be informed and work together to ensure all laws, regulations and local requirements are met.

The clearance requirements specified in the Ontario Electrical Safety Code (OESC) Section 68, Pools, tubs, and spas are harmonized with Canadian Standards Association (CSA) Standard C22.3 No. 1 Overhead systems and CSA Standard C22.3 No. 7 Underground systems. Welland Hydro Electric System Corp. (WHESC) references these CSA Standards as part of their electrical safety distribution regulation.

Overhead

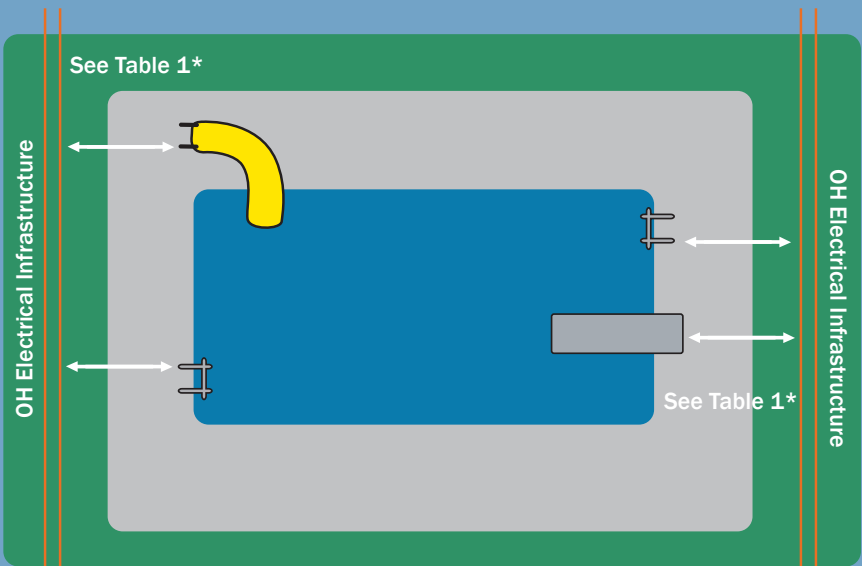
Swimming pools, hot tubs, and water features shall not be located under or adjacent to overhead electrical infrastructure, or within 5 m (16 ft) horizontal distance of the pool area. It is important to factor in not only the pool, but any pool accessories (see Figures 1 & 2 and Table 1) and includes:

- Un-fixed equipment such as hand-held vacuums and pole skimmers, removable ladders
- Fixed equipment such as slides, diving boards, swings, lights, or platforms
- Structures such as shed, decks, or fences.

Underground

Electrical infrastructure and other utilities that is underground pose a risk of tingling or shock or to bathers. WHESC should be contacted to ensure the required clearances are met based on the type of buried infrastructure, see Figure 2 and Table 2.

Figure 1: Pool Top View



* From closest point from the electrical equipment to the edge of the pool and pool accessories or unfixed equipment, e.g. diving board, hand rail, slide



Table 1: OVERHEAD CLEARANCES	
Electrical Infrastructure Voltage Level	Minimum Clearances from Inside Walls of Pool and the Outer Edge of Pool Accessories
A	NOT PERMITTED
B 0 - 750V	5 m (16 ft)
C 750V - 46kV	7.5 m (25 ft)

Table 2: UNDERGROUND CLEARANCES	
Electrical Infrastructure Voltage Level	Minimum Clearances from Inside Walls of Pool
A	NOT PERMITTED
0 - 750V	1.5 m (5 ft)
750V - 15kV	3 m (10 ft)
15kV - 28kV	6 m (20 ft)

Figure 2: Pool Side View

