

Things You Should Know Before Installing a Swimming Pool

Published by TSASK Electrical Inspections, as an information guide prior to the installation of a swimming pool or hot tub.

A pool is deemed to include:

- * Permanently installed and storable swimming pools;
- * Spas, hot tubs;
- * Wading pools, baptismal pools;
- * Decorative pools, and
- * Splash Pads.

Permanently installed swimming pool - means a pool constructed in such a manner that it cannot be disassembled for storage.

Storable swimming pool - means a pool constructed in such a manner that it may be readily disassembled for storage and reassembled to its original integrity.

Spa, or hot tub - means a pool or tub designed for the immersion of persons in heated water circulated in a closed system incorporating a filter, heater, pump and with or without a motor-driven blower but not intended to be filled and drained with each use.

Decorative Pool or baptismal pool - means a pool that could be used as a wading pool or the immersion of persons, that is larger than 1.5 m in any dimension, and that is readily accessible to the public.

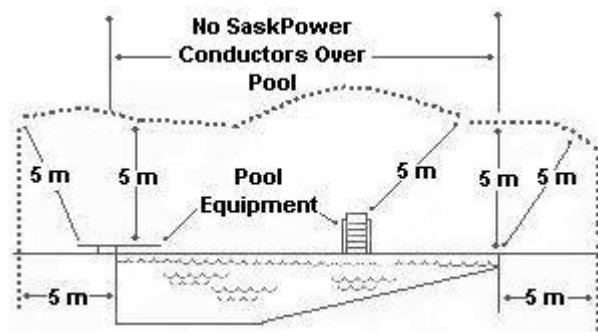
Overhead Wiring (includes overhead telephone, cable TV and power conductors)

Customer owned overhead wiring including insulated communication conductors, communication antenna distribution conductors, and neutral supported cables not exceeding 750 V shall be permitted to be located over a pool, diving structure, slide, observation stand, tower, or platform, providing there is a vertically clearance of 5 m above the pool and/or pool equipment. This also includes the area extending 5 m horizontally from the pool edge, and 5 m measured radially.

Utilities do not permit any service conductors to be located directly over a swimming pool or hot tub.

Utility service conductors may be located adjacent to a pool or hot tub provided there is a least 5 m measured radially from the edge of the pool, hot tub, and diving or play structure.

(See figure to the right)



Underground Wiring (includes underground telephone, cable TV and Power Utility service cables)
 The horizontal separation between the inside walls of an in ground pool or splash pad and underground conductors, except for bonding conductors or conductors supplying electrical equipment associated with the pool and protected by a ground fault circuit interrupter, shall not be less than:

<i>Type of Installation</i>	<i>Conductors Buried Directly in earth</i>	<i>Conductors in non conducting Ducts</i>
<i>Communication conductors</i>	<i>1.5 m</i>	<i>1 m</i>
<i>Power Conductors:</i>		
<i>0 - 750 V</i>	<i>1.5 m</i>	<i>1 m</i>
<i>751 - 15,000 V</i>	<i>3.0 m</i>	<i>1.5 m</i>
<i>15,001 - 28,000 V</i>	<i>6.0 m</i>	<i>2.0 m</i>

Receptacles (wall plugs)

Receptacles shall not be located within 1.5 m of the inside walls of a pool.

Receptacles located between 1.5 m and 3 m of the inside walls of a pool shall be protected by a ground fault circuit interrupter outside of the 3 m distance.

Ground fault circuit interrupters shall not be installed closer than 3 m to the pool water unless the ground fault circuit interrupter is an integral part of an approved factory built spa or hot tub and is located behind a barrier that will prevent the occupant of the tub from contacting the device.

Other Electrical Equipment (air conditioning equipment, pumps, etc.)

Electrical equipment located within 3 m of the inside walls of the pool and not suitably separated from the pool area by a fence, wall or other permanent barrier, shall be protected by a ground fault circuit interrupter.

Electrical Utility Meter

A swimming pool or hot tub shall not be located within 3 m of the Electrical Utility meter unless it is suitably separated from the pool area by a fence, wall or other permanent barrier that provides no less than 1 m clearance about the electric meter. *(Metal poles used for pool servicing can present a shock hazard to persons in the pool area coming in contact with the electric service equipment)*

Lighting

Lighting installed below, or within 3 m of the pool surface or walls, and not suitably separated from the pool area by a fence, wall, or other permanent barrier shall be electrically protected by a ground fault circuit interrupter.

Standards or supports for lighting shall not be installed within 3 m of the inside walls of a swimming pool unless a ground fault circuit interrupter protects such lighting.

Bonding to ground

Pool reinforcing steel and the pool shell shall be bonded at four equally spaced points around the pool. All metallic components associated with the pool and metallic fences within 1.5 m of the pool shall be bonded to ground by a copper conductor.