Swimming Pool Requirements

Residential Code of Ohio 2007 Building Requirements

These requirements are intended to provide protection against potential drowning and near drowning by restricting access to swimming pools, spas and hot tubs.

Swimming Pool Definition: Any structure intended for swimming or recreational bathing that contains water over 24" deep. This includes in ground, above ground, on ground swimming pools, hot tubs and spas.

A. **Outdoor swimming pool.** An outdoor swimming pool, including an in ground, above ground or on ground pool, hot tub or spa shall be provided with a barrier which shall comply with the following.

1. The top of the barrier shall be at least 48" (219 mm) above grade measured on the side of the barrier which faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of the barrier shall be 2" (51 mm) measured on the side of the barrier which faces away from the swimming pool. Where the top of the pool structure is above grade, such as an above ground pool, the barrier may be at ground level, such as the pool structure or mounted on top of the pool structure. Where the barrier is mounted on top of the pool structure, the maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall be 4" (102 mm).

2. Openings in the barrier shall not allow passage of a 4" diameter (102 mm).

3. Solid barriers which do not have openings, such as a masonry or stone wall, shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.

4. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal member is less than 45" (1143 mm), the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall not exceed 1 ¾" (44 mm) in width.

5. Where the barrier is composed of horizontal and vertical members and the distance between the tops of horizontal members is 45" (1143 mm) or more, spacing between vertical members shall not exceed 4" (102 mm). Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1 ¾" (44 mm) in width.

6. Maximum mesh size for chain link fences shall be a 1 ¼" (32 mm) square unless the fence is provided with slats fastened at the top or the bottom which reduce the openings to not more than 1 ¾" (44 mm).

7. Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members shall not be more than 1 ¾" (44 mm).

8. Access gates shall comply with the requirements of Section A, Items 1 through 7 and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool and shall be self-closing and have a self-latching device. Gates other than pedestrian access gates shall have a self-latching device. Where the release mechanism of the self-latching device is located less than 54" (1372 mm) from the bottom of the gate, the release mechanism and openings shall comply with the following:

8.1 The release mechanism shall be located on the pool side of the gate at least 3" (76 mm) below the top of the gate and

8.2 The gate and barrier shall have no opening greater than ½" (12.7 mm) within 18" (457 mm) of the release mechanism.

9. Where a wall of a dwelling serves as part of the barrier one of the following conditions shall be met.

9.1 The pool shall be equipped with a powered safety cover in compliance with ASTEM ES 13-89; or

9.2 All doors with direct access to the pool through that wall shall be equipped with an alarm which produces an audible warning when the door and its screen, if present are opened. The alarm shall sound continuously for a minimum of 30 seconds immediately after the door is opened and be capable of being heard throughout the house during normal household activities. The alarm shall automatically reset under all conditions. The alarm system shall be equipped with a manual means, such as touchpad or switch, to temporarily deactivate the alarm for a single opening. Such deactivation shall last for not more than 15 seconds. The activation switch(s) shall be located at least 54" (1372 mm) above the threshold of the door; or

9.3 Other means of protection, such as self-closing doors with self-latching devices, which are approved by the governing body, shall be acceptable so long as the degree of protection afforded is not less than the protection afforded by Item 9.1 or 9.2 described above.

10. Where an above ground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure and the means of access is a ladder or steps:

10.1 The ladder or steps shall be capable of being secured, locked or removed to prevent access or

10.2 The ladder or steps shall be surrounded by a barrier which meets the requirements of Section A, Items 1 through 9. When the ladder or steps are secured, locked or removed any opening created shall not allow the passage of a 4" diameter (102 mm) sphere.

B. **Indoor swimming pool.** All walls surrounding an indoor swimming pool shall comply with Item 9 above.

C. **Prohibited locations.** Barriers shall be located so as to prohibit permanent structures, equipment or similar objects from being used to climb the barriers.

D. **Barrier exceptions.** A portable spa with a safety cover which complies with ASTM ES 13, shall be exempt from the provisions of this code. Swimming pools, hot tubs and non-portable spas with safety covers shall not be exempt from the provisions of this code.

National Electrical Code Requirements:

The National Electric Code, Article 680 is used as the code for the safe installation of electric around swimming pools. Following these rules can prevent hazards of electrical shock and other accidents associated with swimming pools. The following are only a few important requirements that must be met. Please see Article 680 of the **2008 National Electric Code** for all electrical requirements regarding the installation of swimming pools.

1. **Receptacle Outlets**
   Receptacle outlets shall be located at least 10' from the inside wall of a pool.
   Exception: Receptacles that provide power for water pump motors for permanently installed pools shall be permitted between 5' and 10' from the inside wall of the pool. They shall be single and of the locking and grounding types and protected by the ground fault circuit interrupter (GFCI).

   Where a permanently installed pool is installed at a dwelling unit at least one 125 volt receptacle shall be located a minimum of 10' from and not more than 20' from the inside wall of the pool. These receptacles shall be protected by ground fault circuit interrupter (GFCI).

2. **Lighting Fixtures, Lighting Outlets and Ceiling Fans**
   A. Lighting fixtures, lighting outlets and ceiling fans shall not be installed over the pool or over the area extending 5' horizontally from the inside walls of a pool unless no part of the lighting fixture or ceiling fan is less than 12' above the maximum water level.
   Exception: Existing lighting fixtures and lighting outlets located less than 5' measured horizontally from the inside walls of a pool shall be at least 5' above the surface of the maximum water level and shall be rigidly attached to the existing structure.

   B. Lighting fixtures and lighting outlets installed in the area extending between 5' and 10' horizontally from the inside walls of a pool shall be protected by a ground fault circuit interrupter unless installed 5' above the maximum water level and rigidly attached to the structure adjacent to or enclosing the pool.

   C. Cord connected lighting fixtures shall meet the same specifications as other cord and plug connected equipment as set forth in Item #4 where installed within 16' of any point on the water surface measured radially.

3. **Switching Devices**

   Switching devices on the property shall be located at least 5' horizontally from the inside walls of a pool unless separated from the pool by a solid fence, wall or other permanent barrier.

4. Cord Connected and Plug Connected Equipment

Fixed or stationary equipment rated twenty amperes or less shall be permitted to be connected with flexible cord to facilitate the removal or disconnection for maintenance or repair. For other than storable pools, the flexible cord shall not exceed 3' in length and shall have a copper equipment grounding conductor not smaller than No. 12 with a grounding type attachment plug.

5. Motors

Pool associated motors shall be connected to an equipment grounding conductor sized in accordance with Table 250-122 of the National Electric Code, but not smaller than No. 12. It shall be an insulated copper conductor and shall be installed with the circuit conductors in a rigid metal conduit, intermediate metal conduit or rigid non-metallic conduit (PVC).

6. Overhead Conductor Clearance

The following parts of pools shall not be placed under existing service drop conductors or any other open overhead wiring; nor shall such wiring be installed above the following:

1. Pools and the area extending 10' horizontally from the inside of the walls of the pool;
2. Diving structure;
3. Observation stands, towers or platforms.

As a duly authorized agent of the owner, I hereby certify that the information and statements given on this application and accompanying project information is, to the best of my knowledge true and correct. Furthermore, I hereby certify the intent is to make all improvements in accordance with the applicable codes and regulations even if the requirements of said code and regulations are not indicated on the approved plans. By making this application, I agree to pay all review fees incurred to date if this application is subsequently withdrawn.

Print Name_____ Title_____

Signature _____ Phone #_____

Address_____ City_____ State_____ ZipCode_____