



600 Clearwater Road, Hershey, PA 17033 (717) 533-2057 option 2

## Swimming Pool Guide

### Residential IRC 2015 – Outdoor Pools, Spas & Hot Tubs

- *This Guide represents the majority of critical items the owner/installer must meet and have inspected before covering the work. However; this is not an exhaustive list.*
- *All owners or pool installers must comply with the 2015 International Residential Code (IRC) - Chapter 42 AND 2015 International Swimming Pool and Spa Code*
- *Available free online at [codes.iccsafe.org](http://codes.iccsafe.org)*

#### DEFINITIONS:

- Permanent Pools:
  - In-Ground
  - Above-Ground with walls, deeper than 42"
- Storable Pools:
  - Anything above ground up to a maximum of 42" high
  - Inflatable fabric walls or non-metallic polymeric walls regardless of height.
- Pre-Fab pools **less** than 24" high are **UCC exempt**

#### ALL POOLS:

- E4202.2: Flexible Cords for permanent pools only, shall be 3' Max in length, fixed or stationary equipment can be cord connected (for underwater luminaires).
- E4203.1.1 Receptacles supplying power to circulation / sanitation equipment are allowed to be located 6'-10' from pool walls. Shall be a single receptacle that is grounded and GFCI protected. All other receptacles required shall be no closer than 6' from pool walls.
- E4203.1.2 Minimum of one **15 or 20 amp** receptacle (other than pool pump equipment receptacle) supplied by general purpose branch circuit is required from **6'-20'** from pool edge and located no more than **6'-6"** above pool grade level / deck.
- E4203.1.3 GFCI protection required for all outdoor receptacles, including pool pump motor receptacles.
- E4203.2 Switching devices shall be located not less than **5'** from pool edge, unless separated by permanent barrier such as a fence or wall.
- E4203.3 At least one disconnecting means for all utilization equipment other than lighting, shall be readily accessible and within sight (**50' max**) of the served equipment. The disconnect shall be a minimum of **5'** from pool edge, unless separated from water by permanent barrier requiring a **5'** or greater reach path.
- E4203.4.1 Luminaires, Lighting outlets and suspended paddle fans shall not be installed over pool or within **5'** from pool edge, unless fixture is **12'** or more above the water level.



- E4203.4.4 Existing lighting outlets/luminaires located within **5'** of pool edge, must be rigidly attached to existing structure, located no less than **5'** above maximum water level, and GFCI Protected.
- E4203.4.6 Luminaires / lighting outlets installed between **5'-10'** from pool edge require GFCI protection, unless rigidly attached to the structure and no less than **5'** above maximum water level.
- E4203.6 Overhead Service Drop Conductors and any other open overhead wiring shall not be installed above:
- Pools and areas extending **10'** away from pool edge.
  - Diving Structures or platforms and areas within **10'**:
    - Except service drop conductors are allowed above pool or within **10'** of pool edge, when at least **22.5'** away from maximum water height measured in any direction, and **14.5'** above a diving platform measured in any direction.
  - Only Cable TV and Telephone lines are allowed to be a minimum of **10'** above pool or diving platforms.
- E4203.7 Underground wiring installed within **5'** from pool edge must be installed in a complete raceway of RMC, IMC, or nonmetallic raceway.
- Burial Depths:
    - RMC = **6"**
    - IMC = **6"**
    - Nonmetallic Raceway = **18"**
  - Wiring unrelated to pool equipment must not be installed **within 5'** unless space limitations make it necessary.
- E4204.2 Bonding is required to be by minimum **#8 bare**, insulated, or covered solid copper conductors.
- Connections shall be made by listed pressure connectors or clamps of:
    - Stainless Steel
    - Brass
    - Copper
    - Copper Alloy
  - Bonding connections shall not be by solder or sheet metal screws.
  - Structural Steel shall be bonded together by steel wire ties or equivalent and inspected prior to concealment.
  - Perimeter Surface must extend **3'** minimum beyond the pool walls and shall include unpaved surfaces, poured concrete or other paving types.
  - Perimeter surfaces consisting of buried rebar or welded wire mesh shall be attached to pool structural steel at a minimum of **4 points**, evenly spaced around pool perimeter.
  - Perimeter surfaces that do not consist of buried rebar or welded wire mesh, must meet the following:
    - Minimum of one **#8 bare** solid copper conductor is required.
    - Follow contours of perimeter
    - Located **18"-24"** from pool walls.
    - Located **4"-6"** below the sub-grade.
    - Attached to pool structure at a minimum of **4** evenly spaced points.
  - All metallic parts of pool structure including structural steel are to be bonded.
  - All metal shells of underwater luminaires shall be bonded.
  - All metal fittings within or attached to pool structure shall be bonded, including handrails, ladders, etc.
  - All fixed metal parts located within **5'** of edge of the pool wall shall be bonded.



E4204.3 Pool water shall be intentionally bonded by **9 Sq in** of a conductive surface in contact with pool water, such as ladders, ie. lighting, components, ie. Drain bodies, etc.

### **Storable Pools Only:**

E4207.1 Filter pumps shall be protected by double insulation and shall be provided with a GFCI that is either an integral part of the attachment plug or located in the power supply cord within **12"** of the attachment plug.

E4207.2 All 120 volt receptacles located within **20** feet of a storable pool shall be GFCI Protected.

E4207.4 Receptacles must be located no closer than **6'** from the walls of a storable pool.

### **2015 International Swimming Pool and Spa Code**

2018 PA UCC Swimming pools regulated by 2015 IRC and ISPSA only apply to those that contain over **24"** of water.

#### **305 Barriers (Fencing)**

- Minimum of **48"** above grade; pool structure itself can also meet these requirements
- Maximum distance between grade and barrier bottom is **2"** (Up to **4"** allowed where barrier is over concrete or pavement)
- Openings shall not allow a **4"** sphere to pass through
- Solid barriers shall be constructed without indentations or shall be approved to be unclimbable.
- Maximum chain link fence openings shall be **1.75"**.
- Mesh fences must be installed according to manufacturer's instructions, and bottom of mesh fences must be **1"** maximum above grade and must not be able to be lifted more than **4"** from the grade / decking.
- Barriers shall be located at least **36"** from any permanent structures or equipment, to prevent equipment or objects from being used to climb them.

#### **305 Access Gates:**

- Gates shall be self-closing and self-latching, and open away from the pool.
- Release mechanisms shall either be located on the outside of the gate at least **54"** minimum from the bottom of gate or both of the following:
  - Located on the pool side at least **3"** below top of gate
  - There shall be no openings larger than  $\frac{1}{2}$ " within **18"** of the release mechanism.
  - Dwelling walls that contain doors or operable windows with a sill height below **48"** with direct access to pool shall be equipped with an audible alarm that sounds when the door is opened, with a deactivation switch located **54"** minimum above the door threshold. Alarms must be **UL 2017** listed.
  - Access by a ladder or set of steps, must be capable of being secured, locked, or removed to prevent access or shall be surrounded by a barrier meeting requirements for barrier around pool.
  - If less than **45"** between horizontal bars, then horizontal bars must be on pool side and spindle spacing must not exceed **1.75"**.

AG106: Suction outlets shall comply with **APSP 16**