



Borough of Mechanicsburg

“A Good Place to Live”

Residential Swimming Pools can provide a wonderful place for family and friends to join for fun, but they can also be extremely dangerous if installed incorrectly, or if proper safety measures are not followed. Therefore, installation of Swimming Pools should be taken very seriously.

This municipality ALWAYS expects to see the following checklist completed at time of Building Permit Application whether installation is to be performed by home owner or professionally. Failure to remit any one of the following (without having discussed the issue previously) will be cause for rejection of project, which will be returned to the applicant as incomplete and non-compliant.

Every Pool Application must have this Checklist Completed

Swimming Pool - Building Permit Application Checklist

REQUIRED INFORMATION (See attached guide)	YES	NO	N/A	COMMENTS
Applicant has reviewed attached swimming pool guide?				
Pool info/pump, heater, lighting, etc...				
Electric burial depth				
Wiring methods				
GFCI receptacle locations				
Perimeter bonding methods				
Water bonding methods				
Water depth (above-ground pools)				
Fence (in-ground pools)				
Ladder (above-ground pools)				
Door alarm				

(Swimming Pool Guide follows on pages 2-5)



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Swimming Pool Guide

Residential IRC 2009 – Outdoor Pools, Spas & Hot Tubs

- *This Guide represents most 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 2009 International Residential Code (IRC) - Chapter 42 AND "Appendix G"*
- *Available free online at:*
 - <http://codes.iccsafe.org/app/book/toc/2009/I-Codes/2009%20IRC%20HTML/index.html>

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:

- E4203.3: Pool Pumps cord and plug connection to be double insulated.
- E4202.2: Flexible Cords for permanent pools only, shall be **3'** Max in length, fixed or stationary equipment can be cord connected (exempt for underwater luminaires).
- E4203.1.1: Receptacles supplying power to circulation / sanitation equipment can be located 6'-10' from pool walls. Shall be a single receptacle of locking type, 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 no 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.
- E4203.4.3: 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.

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- E4203.4.5 Luminares / 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:
 - 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 permitted 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"**
- E4204.2 Bonding is required to be by minimum **#8 bare**, insulated, or covered solid copper conductors.
- Connections shall be made by 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 Lighting, components, Drain bodies, etc.

STORABLE POOLS ONLY:

- E4207.1 Fitter 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.

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- 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.

2009 IRC Appendix G: POOLS, SPAS, Hot Tubs

AG102.1 Swimming pools regulated by 2009 IRC only apply to those that contain over **24"** of water.

AG105

Barriers (Fencing)

- Minimum of **48"** above grade; pool structure itself can also meet this requirement.
- Maximum distance between grade and barrier bottom is **2"**
- Openings shall not allow a **4"** sphere to pass through
- Solid Barriers shall be constructed without indentations or shall be approved to be un-climbable
- Maximum chain link fence size shall be **2.25"** square.
- Shall be located to prohibit equipment or objects from being used to climb them.

AG105

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 all 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 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 **ANSI/APAP-7**



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(R/User Data/Codes & Zoning/Building Permits/"SWIMMING POOL GUIDE JUNE 2016 - 2nd version-jlg" Revised: February 2017