

SWIMMING POOLS, SPAS & HOT TUBS

Any person wishing to construct, add to, modify, or operate any swimming pool, swim spa/lap pool, or hot tub/spa, or body of water with a depth exceeding 24 inches, shall first secure a permit from Doylestown Township.

All pools and spas must comply with:

Doylestown Township Code, including Section 175-16 H-6 (View the Twp. Code on the website)

ICC International Residential Code (IRC) (year as referenced by the PA UCC)

ICC International Swimming Pool and Spa Code (ISPSC) (year as referenced by the PA UCC)

ICC International Energy Conservation Code (IECC) (year as referenced by the PA UCC)

National Electrical Code (NEC) (Not limited to Article 680, year as referenced by the PA UCC)

Bucks County Health Department (for commercial/non-residential pools and spas)

PA DEP Swimming Pool Water Discharge Guidelines

The required Township application forms, available on the website are:

Building Permit

Electrical Permit

Mechanical Permit (if gas piping is installed)

Zoning Permit (for pool barrier/fencing)

Grading Permit (for land disturbance over 5000sq ft)

If land disturbance for a pool exceeds 2000 sq ft a Bucks County Conservation District permit is required. Include a copy of the BCCD permit with the Twp. application. Contact BCCD at bucksccd.org or 215 345 7577.

Information to accompany the application for INGROUND Pools, Spas, Hot Tubs, and Swim Spa/Lap Pools

- Use the Building Permit application form, Electrical Permit application form and other application forms as required.
- A topographic site plan indicating all easements, wells, septic locations, and the location of any above ground electrical wires.
- Proposed grading shall not extend beyond the property boundaries and shall not allow water runoff to impact neighboring properties, show swales if required.
- The paving or coping surrounding a pool shall be no closer to the property line than 15 feet.
- An impervious coverage calculation (the water surface is considered IMPERVIOUS).
- If added impervious exceeds 1000sq ft show stormwater calculations and method of mitigation in compliance with Twp. Code Chapter 148 Appendix I.

- If stormwater mitigation is required a Stormwater Maintenance Agreement provided by the Township will need to be executed between the Property Owner and Township.
- A third party reviewed electrical plan. (See attached list of agencies, the list of 3rd party electrical review agencies is also listed separately under the Twp. website Guidelines).
- A copy of the Bucks County Conservation District permit if creating more than 2000sq ft of land disturbance.
- Details of the pool barrier. If existing, indicate that the barrier will meet the ISPSC. NEIGHBORS' FENCES ARE NOT CONSIDERED PART OF YOUR POOL BARRIER. Each pool is required to have a continuous barrier around it located on the same tax parcel on which the pool is located. Pool door alarms are required to be fitted to house doors that open into the pool area, provide details of the door alarms.
- Comply with the Energy saving requirements found in IECC Sections R403.10 to .12. Outdoor heated pools may require a vapor-retardant cover.
- Location of safety glazing if required by IRC Sec. R308 (put simply, glass within 60 inches of the water's edge must be tempered; see the IRC code for the full requirements).
- Plans of pool construction and details of associated equipment.

Information to accompany the application for ABOVE GROUND pools

- Use the Building Permit application form, Electrical Permit application form, and other applications as required.
- A site plan showing the proposed location of the pool. Show the location of any above ground electrical wires.
- If the 48-inch pool walls are to be the required barrier, show that the pool is located on a level pad for at least a 3-foot distance all around the pool. If the pool is dug into a slope and the slope is not cut back level more than 3 feet, an additional pool barrier will be required. Indicate on the site plan the area of the level pad.
- If the pool is located next to a deck, with access into the pool from the deck, a pool barrier will be required.
- Show details of any required pool barriers for the above ground pool.
- A third party reviewed electrical plan. (See attached list of agencies, the list of 3rd party electrical review agencies is also listed separately under the Twp. website Guidelines).
- Complete the impervious coverage calculation.
- Provide specifications of the above ground pool and accompanying equipment.

Information to accompany the application for ABOVE GROUND Spas, Hot Tubs and Swim Spas/Lap Pools

- Use the Building Permit application form, Electrical Permit application form, and other applications as required.
- A third party reviewed electrical plan. (See attached list of agencies, the list of 3rd party electrical review agencies is also listed separately under the Twp. website Guidelines).
- Provide a site plan showing the size and location of the above ground spa/pool.
- Show setbacks from building and windows (must be at least 60 inches).
- If located less than 60 inches from glazing show compliance with IRC Sec. R308, safety glazing. (If needed indicate glazing will be treated with a safety film).

- Above ground hot tubs, spas, and swim pools equipped with a safety cover complying with ASTM F1346 comply with the barrier requirements.
- If a code compliant safety cover is not provided, show the pool barrier location and details on the site plan.
- Provide specifications of the spa, or pool, and accompanying equipment.

Some Electrical requirements for outdoor above ground swimming pools. (From the NEC 2017 edition)

Note: All applicable NEC requirements apply, not just Article 680.

1. No aerial wires within 10 feet of the water's edge.
2. Electrical equipment must be listed.
3. Grounding and bonding terminals are to be identified for wet and corrosive environments.
4. Underground conduit to be buried a minimum of 18 inches.
5. Pool equipment other than lighting to have a maintenance disconnect at least 5 feet horizontally from the inside pool wall.
6. Outdoor receptacles must be GFCI protected.
7. Pool pump motors must be GFCI protected, the receptacle can be mounted on a pressure treated 4 x 4, with the receptacle at least 6 feet from the inside wall of the pool.
8. At least one receptacle must be located at least 6 feet and not more than 20 feet from the inside wall of the pool.
9. Perimeter bonding is required for all surfaces surrounding an above ground pool, including unpaved lawn. A solid #8 AWG copper wire must be installed 4-6 inches below grade at 18-24 inches from the pool perimeter. The conductor is to be bonded to the pool at four equally spaced points and all metal items (ladder, fencing, pool frame etc.) within 5 feet to be bonded to the #8 copper wire.
10. The pool water must be bonded to the #8 copper conductor with a fitting installed in the filtration system or other approved device.
11. UF cable is not permitted near pool water or chemicals. PVC conduit and wet location rated conductors with an insulated equipment grounding conductor are code compliant.
12. Indoor installations may use any NEC Chapter 3 wiring method. Where subject to pool water and chemicals an insulated equipment grounding conductor is required.

Temporary INFLATABLE above ground pools

If the height of the pool sides is below 48-inches, the water level must not exceed 18-inches. No permit is required.

If the height of the pool sides is below 48-inches and the water level is greater than 18-inches, above ground or in-ground pool barrier requirements must be met in full, and permits are required as above.

Listed below are the three attachments to this Pool Guideline:

A list of 3rd party Electrical Underwriter Agencies

ICC ISPSC pool barrier requirements

DEP Swimming Pool Water Discharge Guidelines

Updated 3/20/2023

3rd Party Electrical Underwriter Plan Review/Inspection Agencies

Burns Electrical Inspection Agency
302 E. Pennsylvania Blvd.
Feasterville, PA 19053

Phone: 215-322-2626
Email: brisi@biuinc.com

Code Inspection, Inc.
603 Horsham Road
Horsham, PA 19044

Phone: 215-672-9400
Fax: 215-672-9736
Email: contact@codeinspections.net

Commonwealth Code Inspection Service, Inc.
176 Doe Run Road
Manheim, PA 17545

Phone: 717-664-2347
Fax: 717-664-4953
Email: cccisoffice@dejazzd.com

First PA Inspections, Inc.
419 Sunnemeade Avenue
Warminster, PA 18974

Phone: 215-674-2355
Email: firstpainspections@gmail.com

Grill 1 Inspections
752 Sycamore Avenue
Southampton, PA 18966

Phone: 215-364-5758
Email: grill1inspections@comcast.net

Keycodes Inspection Agency
1307 West Lehigh Street
Bethlehem, PA 18018

Phone: 610-866-9663
Email: dave@keycodes.net

Lehigh Valley Inspection Service
P.O. Box 423
Orefield, PA 18069

Phone: 610-395-3827
Email: thbinc@rcn.com

Liberty Inspection Limited
67 Buck Road
Huntingdon Valley, PA 19006

Phone: 215-595-7707
Email: LTECHG@aol.com

Middle Atlantic Electrical Inspections, Inc.
302 E. Pennsylvania Boulevard
Feasterville, PA 19053

Phone: 215-322-2626
Email: brisi@biuinc.com

Municipal Inspection Corporation
248 Geiger Road, Suite 103
Philadelphia, PA 19115

Phone: 215-673-4434
Fax: 215-677-9360
Email: mic-sharon@hotmail.com

National Inspection Agency
117 Cherry Ridge Road
State College, PA 16803-1348

Phone: 814-238-5009
Fax: 814-238-5776
Email: codequigley@aol.com

Underwriters Inspection Service, Inc.
PO Box 416
Royersford, PA 19468

Phone: 610-495-2803
Fax: 610-495-6736
Email: codecop@comcast.net

United Inspection Agency
716 North Bethlehem Pike Suite 300
Lower Gwynedd, PA 19002

Phone: 215-542-9977
Email: info@unitedinspectionagency.com

Note: Listed above is not a complete list of 3rd Party Electrical Underwriters. Other 3rd Party Electrical Underwriters certified to conduct inspections in Pennsylvania are listed on the PA Department of Labor and Industry website. See the PA L&I Building Codes homepage to check the current certification status of the 3rd Party Electrical Plan Review and Inspection Agencies.

2 0 1 8

INTERNATIONAL CODES™

ISPPSC®

A Member of the International Code Family®

■ **INCLUDES**

- APSP-7 Standard for Suction
- Entrapment Avoidance

INTERNATIONAL
SWIMMING POOL AND SPA CODE®

SECTION 305 BARRIER REQUIREMENTS

305.1 General. The provisions of this section shall apply to the design of barriers for restricting entry into areas having pools and spas. Where spas or hot tubs are equipped with a lockable safety cover complying with ASTM F1346 and swimming pools are equipped with a powered safety cover that complies with ASTM F1346, the areas where those spas, hot tubs or pools are located shall not be required to comply with Sections 305.2 through 305.7.

305.2 Outdoor swimming pools and spas. Outdoor pools and spas and indoor swimming pools shall be surrounded by a barrier that complies with Sections 305.2.1 through 305.7.

305.2.1 Barrier height and clearances. Barrier heights and clearances shall be in accordance with all of the following:

1. The top of the barrier shall be not less than 48 inches (1219 mm) above grade where measured on the side of the barrier that faces away from the pool or spa. Such height shall exist around the entire perimeter of the barrier and for a distance of 3 feet (914 mm) measured horizontally from the outside of the required barrier.
2. The vertical clearance between grade and the bottom of the barrier shall not exceed 2 inches (51 mm) for grade surfaces that are not solid, such as grass or gravel, where measured on the side of the barrier that faces away from the pool or spa.
3. The vertical clearance between a surface below the barrier to a solid surface, such as concrete, and the bottom of the required barrier shall not exceed 4 inches (102 mm) where measured on the side of the required barrier that faces away from the pool or spa.
4. Where the top of the pool or spa structure is above grade, the barrier shall be installed on grade or shall be mounted on top of the pool or spa structure. Where the barrier is mounted on the top of the pool or spa, the vertical clearance between the top of the pool or spa and the bottom of the barrier shall not exceed 4 inches (102 mm).

305.2.2 Openings. Openings in the barrier shall not allow passage of a 4-inch-diameter (102 mm) sphere.

305.2.3 Solid barrier surfaces. Solid barriers that do not have openings shall not contain indentations or protrusions that form handholds and footholds, except for normal construction tolerances and tooled masonry joints.

305.2.4 Mesh fence as a barrier. Mesh fences, other than chain link fences in accordance with Section 305.2.7, shall be installed in accordance with the manufacturer's instructions and shall comply with the following:

1. The bottom of the mesh fence shall be not more than 1 inch (25 mm) above the deck or installed surface or grade.
2. The maximum vertical clearance from the bottom of the mesh fence and the solid surface shall not permit

the fence to be lifted more than 4 inches (102 mm) from grade or decking.

3. The fence shall be designed and constructed so that it does not allow passage of a 4-inch (102 mm) sphere under any mesh panel. The maximum vertical clearance from the bottom of the mesh fence and the solid surface shall be not greater than 4 inches (102 mm) from grade or decking.
4. An attachment device shall attach each barrier section at a height not lower than 45 inches (1143 mm) above grade. Common attachment devices include, but are not limited to, devices that provide the security equal to or greater than that of a hook-and-eye-type latch incorporating a spring-actuated retaining lever such as a safety gate hook.
5. Where a hinged gate is used with a mesh fence, the gate shall comply with Section 305.3.
6. Patio deck sleeves such as vertical post receptacles that are placed inside the patio surface shall be of a nonconductive material.
7. Mesh fences shall not be installed on top of onground residential pools.

305.2.5 Closely spaced horizontal members. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches (1143 mm), the horizontal members shall be located on the pool or spa side of the fence. Spacing between vertical members shall not exceed 1³/₄ inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1³/₄ inches (44 mm) in width.

305.2.6 Widely spaced horizontal members. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches (1143 mm) or more, spacing between vertical members shall not exceed 4 inches (102 mm). Where there are decorative cutouts within vertical members, the interior width of the cutouts shall not exceed 1³/₄ inches (44 mm).

305.2.7 Chain link dimensions. The maximum opening formed by a chain link fence shall be not more than 1³/₄ inches (44 mm). Where the fence is provided with slats fastened at the top and bottom that reduce the openings, such openings shall be not greater than 1³/₄ inches (44 mm).

305.2.8 Diagonal members. Where the barrier is composed of diagonal members, the maximum opening formed by the diagonal members shall be not greater than 1³/₄ inches (44 mm). The angle of diagonal members shall be not greater than 45 degrees (0.79 rad) from vertical.

305.2.9 Clear zone. There shall be a clear zone of not less than 36 inches (914 mm) between the exterior of the barrier and any permanent structures or equipment such as pumps, filters and heaters that can be used to climb the barrier.

305.2.10 Poolside barrier setbacks. The pool or spa side of the required barrier shall be not less than 20 inches (508 mm) from the water's edge.

305.3 Gates. Access gates shall comply with the requirements of Sections 305.3.1 through 305.3.3 and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool or spa, shall be self-closing and shall have a self-latching device.

305.3.1 Utility or service gates. Gates not intended for pedestrian use, such as utility or service gates, shall remain locked when not in use.

305.3.2 Double or multiple gates. Double gates or multiple gates shall have not fewer than one leaf secured in place and the adjacent leaf shall be secured with a self-latching device. The gate and barrier shall not have openings larger than $\frac{1}{2}$ inch (12.7 mm) within 18 inches (457 mm) of the latch release mechanism. The self-latching device shall comply with the requirements of Section 305.3.3.

305.3.3 Latches. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from grade, the release mechanism shall be located on the pool or spa side of the gate not less than 3 inches (76 mm) below the top of the gate, and the gate and barrier shall not have openings greater than $\frac{1}{2}$ inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.

305.4 Structure wall as a barrier. Where a wall of a dwelling or structure serves as part of the barrier and where doors or windows provide direct access to the pool or spa through that wall, one of the following shall be required:

1. Operable windows having a sill height of less than 48 inches (1219 mm) above the indoor finished floor and doors shall have an alarm that produces an audible warning when the window, door or their screens are opened. The alarm shall be *listed* and *labeled* as a water hazard entrance alarm in accordance with UL 2017. In dwellings or structures not required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located 54 inches (1372 mm) or more above the finished floor. In dwellings or structures required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located not greater than 54 inches (1372 mm) and not less than 48 inches (1219 mm) above the finished floor.
2. A *safety cover* that is *listed* and *labeled* in accordance with ASTM F1346 is installed for the pools and spas.
3. An *approved* means of protection, such as self-closing doors with self-latching devices, is provided. Such means of protection shall provide a degree of protection that is not less than the protection afforded by Item 1 or 2.

305.5 Onground residential pool structure as a barrier. An onground *residential* pool wall structure or a barrier mounted on top of an onground *residential* pool wall structure shall serve as a barrier where all of the following conditions are present:

1. Where only the pool wall serves as the barrier, the bottom of the wall is on grade, the top of the wall is not less than 48 inches (1219 mm) above grade for the

entire perimeter of the pool, the wall complies with the requirements of Section 305.2 and the pool manufacturer allows the wall to serve as a barrier.

2. Where a barrier is mounted on top of the pool wall, the top of the barrier is not less than 48 inches (1219 mm) above grade for the entire perimeter of the pool, and the wall and the barrier on top of the wall comply with the requirements of Section 305.2.
3. Ladders or steps used as means of access to the pool are capable of being secured, locked or removed to prevent access except where the ladder or steps are surrounded by a barrier that meets the requirements of Section 305.
4. Openings created by the securing, locking or removal of ladders and steps do not allow the passage of a 4-inch (102 mm) diameter sphere.
5. Barriers that are mounted on top of onground *residential* pool walls are installed in accordance with the pool manufacturer's instructions.

305.6 Natural barriers. In the case where the pool or spa area abuts the edge of a lake or other natural body of water, public access is not permitted or allowed along the shoreline, and required barriers extend to and beyond the water's edge not less than 18 inches (457 mm), a barrier is not required between the natural body of water shoreline and the pool or spa.

305.7 Natural topography. Natural topography that prevents direct access to the pool or spa area shall include but not be limited to mountains and natural rock formations. A natural barrier approved by the governing body shall be acceptable provided that the degree of protection is not less than the protection afforded by the requirements of Sections 305.2 through 305.5.



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

SWIMMING POOL WATER DISCHARGE GUIDELINES

Water from swimming pools and hot tubs often contain high levels of chlorine. Discharging chlorinated pool/spa water into streams, (or irrigation canals, ponds, etc.) is harmful to fish and other aquatic life. The discharge of any sewage or industrial waste, including swimming pool water, to a water of the Commonwealth without a permit is a violation of the Clean Streams Law, the Act of June 22, 1937, P.L. 1987, as amended.

It has been the Department's policy not to require permits for discharges from single residence pools, provided the guidelines outlined below are followed. Local municipalities should be contacted concerning local ordinances.

These guidelines shall not be construed so as to waive or impair any rights of the Department of Environmental Protection to prosecute the property (pool) owner and/or pool company for any stream damage that occurs as a result of the discharge. Penalties would be assessed under the provisions of the Clean Streams Law.

Pool Guidelines:

A. Disposal of Water to Sanitary Sewer

1. If the municipal authority grants permission, you can discharge pool backwash water, pool cleaning wastewater and standing water to the sanitary sewer system. Neutralize water before discharge by following these steps:
 - a) Prior to disposal of pool water to a sanitary sewer, shut off the chlorination system if you have one, or stop adding chlorine.
 - b) Hold the water in the pool or hot tub for at least two weeks to allow the chlorine to dissipate.
 - c) Measure the chlorine level in the pool or hot tub prior to discharging the water. The water should not show any detectable levels of chlorine. A longer holding period may be necessary if chlorine levels continue to remain at detectable levels at the end of two weeks. Chlorine measurements can be made with a chlorine test kit (colorimetric).
2. Plan discharge for low-use times of sewer flow such as afternoon or late night hours.
3. Use small volume pump and control discharge so it doesn't spill out. (< 800 gallons per minute)
4. Discharge with hose into access "cap" of the private property sewer cleanout. DO NOT use public manholes or cleanouts.
5. Care should be taken in making sure the discharge is to a sanitary sewer and not a storm sewer, which would discharge to a stream. If sanitary sewers are not in the immediate area, the wastewater should be hauled off-site for disposal at an approved treatment facility.
6. Water from backwashing pool filters should not be discharged to a stream, ditch or storm sewer. Backwash from pool filters must be discharged to the sanitary sewer, on-site septic tank and drainfield system (if properly designed and adequately sized), or a seepage pit.

B. Discharge of Water

1. If the discharge to sanitary sewer is not feasible, then the following guidelines must be followed before discharging the water:
 - a) Prior to disposing or using the water for irrigation, shut off the chlorination system if you have one, or stop adding chlorine.
 - b) Hold the water in the pool or hot tub for two weeks to reduce the chlorine level.
 - c) Discharge or use the water for irrigation in an area where the water will not flow into a stream or storm sewer.
 - d) Discharge or use the water for irrigating your property and ensure that it does not flow off your property.

- e) Discharge or use the water for irrigation in a manner that will prevent nuisance conditions (such as creation of odors, and fly and mosquito breeding conditions). Nuisance conditions occur when water is held in the pool for a prolonged period.
- 2. The discharge should be at a rate which prevents erosion and optimizes filtration. In no event, pool water shall be directly discharged to waters of the Commonwealth.
- C. Standing water or accumulated rain and/or pool water from the previous season should be pumped from the top so as not to disturb settled solids. Solids on the pool bottom should not be discharged. Following pump down of water, solids should be cleaned out manually. The discharge should not raise stream temperatures by more than 2 degrees F in a one-hour period or a total of 5 degrees F, pH should be between 6 and 9 standard units and total chlorine residual should be 0.0 mg/l.
- D. Cleaning wastewaters containing muriatic acid or chlorine that is used in cleaning pool surfaces needs to be treated prior to discharge. Muriatic acid wastewater should be neutralized to a pH between 6 and 9 standard units. Chlorine rinses should stand for a period of 10 days to allow chlorine degradation prior to discharge. Total chlorine residual of the wastewater discharge should be less than 0.5 mg/l. Temperature should be monitored as described above (standing water). Chlorine rinse water pH should be between 6 and 9 standard units.

Questions concerning pool guidelines should be directed to Pennsylvania Department of Environmental Protection's Regional Offices:

Southeast Regional Office
 2 East Main St.
 Norristown, PA 19401
 Main Telephone: 484-250-5900
 24-Hour Emergency: 484-250-5900

Counties: Bucks, Chester, Delaware, Montgomery, and Philadelphia

Northeast Regional Office
 2 Public Square
 Wilkes-Barre, PA 18711-0790
 Main Telephone: 570-826-2511
 24-Hour Emergency: 570-826-2511

Counties: Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne, and Wyoming

Southcentral Regional Office
 909 Elmerton Ave.
 Harrisburg, PA 17110-8200
 Main Telephone: 717-705-4700
 24-Hour Emergency: 1-877-333-1904

Counties: Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry, and York

Northcentral Regional Office
 208 W. Third St., Suite 101
 Williamsport, PA 17701
 Main Telephone: 570-327-3636
 24-Hour Emergency: 570-327-3636

Counties: Bradford, Cameron, Clearfield, Centre, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga, and Union

Southwest Regional Office
 400 Waterfront Drive
 Pittsburgh, PA 15222-4745
 Main Telephone: 412-442-4000
 24-Hour Emergency: 412-442-4000

Counties: Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington, and Westmoreland

Northwest Regional Office
 230 Chestnut St.
 Meadville, PA 16335-3481
 Main Telephone: 814-332-6945
 24-Hour Emergency: 1-800-373-3398

Counties: Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango, and Warren

For more information, visit www.depweb.state.pa.us, keyword: Wastewater.