



POOLS, HOT TUBS AND SPAS

This document is intended to provide the homeowner or contractor with general guidelines for securing a permit to install a swimming pool, hot tub or spa:

- Permits Required
- Construction Documents Required
- Barriers
- Electrical
- Inspections

PERMITS REQUIRED

The Virginia Uniform Statewide Building Code (VUSBC) requires a permit for all swimming pools, hot tubs or spas that meet ANY of these conditions:

1. Greater than 150 square feet (approximately 7' in diameter)
2. Has more than 5,000 gallons of water
3. Deeper than 24"

The International Residential Code (IRC) does not distinguish between in-ground or aboveground, indoor or outdoor swimming pools. The code requires spas and hot tubs to conform to the same requirements as swimming pools. Pools for (fish or flora) landscaping are exempt from this section regardless of the size.

Three permits are required:

1. Pool permit,
2. Barrier permit,
3. Electrical permit.

A pool contractor frequently obtains the pool permit; the homeowner usually obtains the barrier permit. Either an electrical contractor or the homeowner obtains the electrical permit. When the homeowner is applying for a permit for the barrier and/or the electrical installation, the homeowner must review the code requirements fact sheet, and sign a Residential Swimming Pool Affidavit signifying his/her acknowledgment of responsibility for coordinating the work and the inspections, as a condition of issuance of the pool permit.

A pool permit will not be issued until the building inspections department is in receipt of corresponding applications for the barrier and electrical permits.

NOTES:

1. A barrier permit is not required for a hot tub that has a removable, solid top cover.
2. An electrical permit is required even if the existing electrical outlets are in compliance with the code and are going to be used for the pool pump and required convenience outlet.

CONSTRUCTION DOCUMENTS REQUIRED

Four documents are required to get a swimming pool, spa or hot tub permit:

1. A detail of the pool construction sealed by the pool supplier/engineer,

2. A Residential Swimming Pool Affidavit, which acknowledges who is responsible for getting the pool permit, constructing the necessary pool barrier (fence), and getting the electrical permit.
3. An electrical permit application.
4. Plat showing where the pool is located with relationship to the property lines.

Once the four documents have been approved, a building permit will be issued and the pool, spa or hot tub construction can begin.

BARRIERS

An outdoor swimming pool, including an in-ground, aboveground 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 inches above grade measured on the side of the barrier, which faces away from the swimming pool. The maximum vertical clearance between grade and the barrier shall be 2 inches 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 aboveground pool, the barrier may be the pool structure itself provided it is 48" tall, or may be a removable barrier 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 inches.
2. Openings in the barrier shall not allow passage of a 4-inch-diameter sphere.
3. Solid barriers, which do not have openings, such as 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 members is less than 45 inches, the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall not exceed 1.75 inches in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches in width.
5. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches or more, spacing between vertical members shall not exceed 4 inches. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches in width.
6. Maximum mesh size for chain link fences shall be a 2.25-inch square unless the fence is provided with slats fastened at the top or the bottom which reduce the openings to not more than 1.75 inches.
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 1.75 inches.
8. Access gates 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 inches from the bottom of the gate, the release mechanism and openings shall comply with the following:
 - A. The release mechanism shall be located on the pool side of the gate at least 3 inches below the top of the gate, and
 - B. The gate and barrier shall have no opening greater than 0.5 inch within 18 inches 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:
 - A. The pool shall be equipped with a powered safety cover in compliance with ASTM F1346; or
 - B. All doors with direct access to the pool through that wall shall be equipped with a hard-wired or battery powered 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 deactivation switches shall be located at least 54 inches above the threshold of the door; or
- C. 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 A and B described above.
10. Where an aboveground 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, then:
- A. The ladder or steps shall be capable of being secured, locked or removed to prevent access, or
- B. The ladder or steps shall be surrounded by a barrier which meets the requirements of Items 1 through 9 above. When the ladder or steps are secured, locked or removed, any opening created shall not allow the passage of a 4- inch-diameter sphere.
11. All walls surrounding an indoor swimming pool shall comply with Item 9.
12. Barriers shall be located so as to prohibit permanent structures, equipment or similar objects from being used to climb the barriers.
13. Spas or hot tubs with a safety cover which complies with ASTM F 1346, as listed in Section AG107, shall be exempt from these requirements.

ELECTRICAL

We encourage you to engage an electrical contractor for your particular needs. Bonding, grounding and wiring are all dependent on the installation and equipment. Call Miss Utility (811) to locate underground services.

Pools, hot tubs, and spas cannot be installed over or under electrical wires.

INSPECTIONS

The primary purpose of the pool inspection process is to assure that safety requirements have been met, including verifying that the electrical installation has been completed, inspected and approved, and that the swimming pool barrier requirements of the code have also been satisfied by a permanent pool barrier. Swimming pools shall not be used until all required inspections of the pool, its barrier (fence or pool wall for an above-the-ground pool), and its associated electrical equipment have been approved.

The following inspections are required:

- Pool footings – for in ground pools
- Bonding – with all cups installed, rebar installed, concrete deck wire run, wire to motor
- Final electrical – everything complete, installed, and hooked up
- Barrier – installed as needed for pool including home opening alarms if needed
- Final building – once all other inspections are complete