

**SWIMMING POOL PERMIT REQUIREMENTS FOR THE TOWN OF VINTON**  
*As of June 22, 2011*

All swimming pools that have the capacity to hold 24 inches (2 feet) or more of water require a permit. The permit must be issued and posted on the property prior to any land-disturbance or construction occurring.

**Project Address:** \_\_\_\_\_

New Structures and Additions – Residential Plans Checklist

- Part I must be completely filled out. If a line item does not apply to this project, check the N/A box for that line. (TOV internal use only)
- Permit Plot Plan – In most cases, the first box (0 – 2,500 sq. ft.) may be checked. However, should the project be larger than 2,500 sq. ft., additional information may be required. (TOV internal use only)
- Part 3 must be filled out. If a line item does not apply to this project, write N/A for that line.
- Part 4 N/A
- Part 5 must be filled out if a deck or patio will be built around the pool.
- For the Building Permit Plot Plan, please make a drawing of the property that includes all of the items on the Plot Plan Checklist. All line items must be included and a check must be placed under “Applicant”. \*\*Do not use square for property lines – draw them in.

Residential Permit Application

- If you are the property owner, please **do not** sign the document unless it is in the Planning Office or in front of a notary public.
- If you are the tenant of the property, please obtain a letter from the property owner stating that you have permission to apply for a swimming pool permit.
- Under Scope of Work, note if a new GFI electrical connection will be needed, or if an existing GFI will be used. If an existing one is to be used, please write “No new electrical” on the form. (Building Commissioner says a GFI extension cord can be used, and some new pools have GFI built into pump)

Subcontractor’s List

- The General Contractor will more than likely be the person who is applying for the permit, whether it is an individual or an installation company.
- If an outside GFI outlet has to be installed for pumps or other equipment for the pool, list the electrician that will be performing the work. Please fill out the electrician’s information completely, including state license information and cost of the work.

Assignment of Responsible Party for Swimming Pool Safety Barrier

Agreement in Lieu of Erosion & Sediment Control Plan

- N/A. The project disturbs less than 2,500 sq. ft.
- The project disturbs more than 2,500 sq. ft.

A copy of the manufacturer’s installation instructions (TOV keeps a copy on file with permit; customer must have a copy on site with the permit)

Certificate of Setback Compliance (for properties with 50’ right-of-way)

- For properties not located on a corner lot, the front yard setback is 25’ from the property line; the side and rear yard setbacks are 5’ from the property lines.
- For properties located on a corner lot, the front yard setback is 25’ from the property line; the 2<sup>nd</sup> front yard (street side yard) setback is 15’ from the property line; the rear yard and interior side yard setbacks are 5’ from the property lines.

Town of Vinton Zoning Permit Application

Application # \_\_\_\_\_



**ROANOKE COUNTY COMMUNITY DEVELOPMENT**  
**Office of Building Safety**



**NEW STRUCTURES AND ADDITIONS**  
**Residential Plans Checklist**

**PROJECT ADDRESS** \_\_\_\_\_

This checklist is a part of and must accompany all permit applications for new residential construction or additions. Please address any questions to plans review staff at 540.772.2065. There is a five (5) business day review period for residential plan reviews beginning the day after submission to the permit office.

**Part 1 – Application, Site Plan and Related Documents**

Yes N/A

- Completed Permit Application
- Proof of Ownership (if not current in property records)
- Owner's Affidavit completed on permit application if Owner Permit
- Contractors License, when required
- County Business License, when required
- List of sub-contractors to be used on project
- VDOT highway entrance permits if applicable
- Health Department construction permit for well and/or septic; or water/sewer availability letter from WWA
- Soil test report and engineer's recommendation and/or design when project located within a designated expansive soil area of the county (Generally for new construction only. Applicants should review the Roanoke County Expansive Soil Policy)
- Engineers report and design for structures located on lots with steep slopes. (See Steep Slope Policy)

**Permit Plot Plan and Erosion Control Plan (3 Copies)**

Erosion and Sediment Control Plan (check one and verify the total disturbed area as shown on the plot plan)

- 0 - 2,500 sq. ft. of disturbed area** – no erosion control plan required. Plot plan to indicate measures to control storm water runoff to adjoining properties during construction. **Roanoke County Plot Plan Template must be used; see example below (Required size 8.5" x 11")** No Review Fee
- 2,500 – 5,000 of disturbed area** – Signed "Agreement in Lieu of" letter and plot plan to indicate minimum E & S measures per the agreement. **Roanoke County Plot Plan Template must be used; see example below (Required size 8.5" x 11")** Review Fee - \$25.00
- 5,000 – 10,000 sq. ft. of disturbed area** – Certified Responsible Land Disturber for project. Erosion and Sediment Control Plan prepared by either **the project RLD or a Professional Engineer. Roanoke County Plot Plan Template must be used; see example below (Required size 11" x 17")** Review Fee - \$50.00
- 10,000 sq. ft and over** - Certified Responsible Land Disturber for project. Erosion and Sediment Control Plan prepared by Professional Engineer. Surety and Review Fee – per E&S Ordinance. Completed E&S Plot Plan Review Checklist. These plans may require an **extended review period** due to the complexity and detail involved.



**Part 3 – POOLS, SPAS AND HOT TUBS Preferred Scale: ¼" = 1' (USBC 109.1)  N/A**

**Definition: Pool – any structure intended for swimming or recreational bathing and containing water over 24" deep. This includes in-ground, aboveground and on-ground swimming pools, hot tubs & spas**

- Completed and signed barrier responsibility form.
- Plot plan showing location of existing structures and intended location of pool
- Details and/or description of barrier type, including security fencing & alarm (Fencing must be on plot plan)
- Location of all associated proposed equipment, pumps, heaters, drains, etc.
- Construction drawings for any decks, steps, railings or guards to be built in association with the pool
- Complete architectural/engineering drawings for all site built pools
- Manufacturers installation instructions available on-site for all kit and pre-manufactured pools
- Electrical details per NEC for outlets, fixtures or other devices to be installed or used with the pool
- The plan is to indicate the discharge of any pool drain to an approved discharge point

**Part 4 – RETAINING WALLS Preferred Scale: ¼" = 1' (USBC 109.1)  N/A**

- >2 – <4 feet in height or fill - no construction documents required. Plot plan should indicate setbacks
- 4 - ≤6 feet in height of fill - construction documents required; standard manufacturer designs are acceptable
- >6 feet in height or fill – construction documents required- must bear the seal of a VA Reg. Design Prof.
- 10 feet in height or fill and above – Statement of Special Inspections is also required

**All retaining wall construction documents submitted shall include the following in addition to plot plan:**

- Specifications for the construction materials
- Specification for the backfill material and compaction requirements
- Wall elevations and multiple cross-sections of each retaining wall, to include structural details; the actual ground slope at the top and the toe of the retaining wall
- Bearing capacity of the foundation soil
- Method of drainage behind the wall
- Guardrail location and details for retaining wall systems 30 inches and higher, to protect pedestrian traffic when applicable
- Per IBC Section 1806, walls are to be designed with a safety factor of 1.5 against lateral sliding/overturning
- Plans indicating walls which extend across multiple properties must include a description of provisions to be made to provide for access and maintenance of wall

**Part 5 – ACCESSORY STRUCTURES, DECKS & POST FRAME CONSTRUCTION Preferred Scale: ¼" = 1'**

**Yes N/A**

- Accessory Structures less than 300 sq. ft., no building plans required, plot plan only required
- Accessory Structures over 300 sq. ft., submit building plans showing framing details including wall bracing, lumber sizes and spans, roof system and foundation system in addition to plot plan
- Accessory and Post Frame pre-fabricated/manufactured buildings – supply manufacturers details for foundation and anchoring requirements
- Decks shall be built in accordance with the AFPA 2006 *Prescriptive Residential Wood Deck Construction Guideline- DA6*, or must be designed in accordance with accepted engineering practice and show all related details for framing, foundation, guards, connections and fasteners
- Post frame construction drawings must be engineered and sealed by a registered design professional; drawings must indicate all structural design loads in accordance with IBC chapter 16 and ASCE 7
- Post frame construction drawings must indicate the size, grade and species of wood members, metal roofing and side panel size and material quality, engineered post connections, and fastener schedule
- Post frame construction drawings must indicate foundation system and connections





# RESIDENTIAL PERMIT APPLICATION

Roanoke County / Town of Vinton - Community Development  
5204 Bernard Dr. / P.O. Box 29800 Phone 540-772-2065  
Roanoke, VA 24018 Fax 540-772 2108



APPLICATION # \_\_\_\_\_

- Check Appropriate Boxes
- New                       Alteration                       Addition                       Demolition  
 Single Family               Duplex                       Townhouse                       Mobile Home  
 Single Family (attached)               Accessory Structure \_\_\_\_\_

<b>PROPERTY INFORMATION</b>	Job Address: _____			
	Subdivision: _____	Lot#: _____	Tax Map#: _____	Zoning: _____
	Owner(s): _____			Phone: _____
	Mailing Address: _____			Cell: _____
				E-mail: _____
<b>APPLICANT INFORMATION</b>	Applicant (if other than owner): _____			Phone: _____
	Applicant Address: _____			Cell: _____
			Fax: _____	E-mail: _____
	State License #: _____		Expiration Date: _____	County License #: _____

<b>PROJECT DESCRIPTION</b>	<p><b>Briefly, but thoroughly, describe the proposed work. You may attach additional sheets if necessary.</b></p> <p>_____</p> <p>_____</p> <p>_____</p>
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<b>NEW SINGLE FAMILY &amp; ADDITIONS INFORMATION:</b>	Building Height: _____	# Fireplaces: _____
	Living Area (Include Fin. Basement) (Sq. Ft.): _____	# Bedrooms: _____
	Garage Area (Sq. Ft.): _____	# Full Bathrooms: _____
	Unfinished Basement Area (Sq. Ft.): _____	# Half Bathrooms: _____
	Carport Area (Sq. Ft.): _____	# Stories: _____
	Deck Area (Sq. Ft.): _____	# Units: _____
	Covered Porch (Sq. Ft.): _____	<b>Foundation</b> <input type="checkbox"/> Slab <input type="checkbox"/> Crawl <input type="checkbox"/> Basement
	Gazebo/ Storage Bld. (Sq. Ft.): _____	

**Heat Source**

Heat Pump  
 Gas  
 Electric  
 Wood Stove  
 Solar  
 Other \_\_\_\_\_

**Water Source**

Public Water  
 Well

**Sewage**

Public Sewer  
 Septic

<b>MANUFACTURED HOME INFORMATION:</b>	<input type="checkbox"/> Single-wide (under 19') <input type="checkbox"/> Double-wide <input type="checkbox"/> Triple-wide
	Manufacturer: _____
	Year: _____
	Est. Cost: _____

<b>ALTERATIONS &amp; DEMOLITION INFORMATION:</b>	<p>Estimated cost should include all electrical, plumbing, and mechanical work. Including equipment, labor, overhead and profit.</p> <p><b>Estimated Cost:</b> \$ _____</p>
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I hereby certify that I am the owner of the record of the herein described property, or that the proposed work has been authorized by the owner of record and that I have been authorized to make this application as a designated agent. I agree to conform to all applicable state and local regulations, rules and policies and such shall be deemed a condition entering into the exercise of the permit. In addition, if a permit is issued, I certify that the code official or his authorized representative shall have the authority to enter the area(s) described herein at any reasonable hour for the purpose of enforcing the provisions of the applicable code(s).

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

<b>Office Use Only</b>	
FEMA	<input type="checkbox"/> YES <input type="checkbox"/> NO



# Building Permit Plot Plan

for disturbed areas of 5000 sq. ft. or less

Scale: 1 in = \_\_\_\_\_ ft



## Roanoke County Community Development

### Plot Plan Checklist

Applicant Staff

- Property Lines and Dimensions
- New and Existing Structures
- Distances to Property Lines
- Utilities and Easements
- Streets and Entrances
- Drainage Arrows
- Disturbed Area \_\_\_\_\_ sq. ft.
- E&S Agreement when > 2500 SF
- Location of E&S Controls

### Notes



Use solid lines for existing structures



and dotted lines for proposed structures

Use arrows to indicate the general direction of lot drainage

All collected storm water must be discharged to an approved location  
The presence of flood hazards or steep slopes may require additional information  
A copy of the approved plan is required to be on site during inspections

### Project Information

Site Address \_\_\_\_\_

Owner \_\_\_\_\_

Parcel ID \_\_\_\_\_

Zoning District \_\_\_\_\_

### Required Setbacks for This Project

Front 25' Side 10' Rear 5'

Rev. 01/15/2008

Roanoke County  
Community Development Department  
Office of Permits and Inspections  
Phone: (540) 772-2065

Date: \_\_\_\_\_ Job Amount \$ \_\_\_\_\_

Applicant/Owner: \_\_\_\_\_

Job Location \_\_\_\_\_

You are required by Section 7-19 of the Roanoke County Code to submit a roster of all sub-contractors who are performing work under the building permit applied for. The provisions of this section apply to Owners acting as general contractors, General Contractors, Sub-Contractors, Builders and Developers, Tenants and other persons applying for permits. This form is to be completed and returned along with your permit application.

I, the undersigned, declare under penalty of law that the above information is true, correct, and complete to the best of my knowledge.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

**MECHANICS LIEN AGENT (if applicable)**

Business Name: \_\_\_\_\_ Phone# \_\_\_\_\_  
Business Address: \_\_\_\_\_ Zip \_\_\_\_\_

**GENERAL CONTRACTOR**

Name: \_\_\_\_\_ Phone # (\_\_\_\_\_) \_\_\_\_\_  
Address: \_\_\_\_\_ Zip: \_\_\_\_\_  
Roanoke Co. Bus. Lic. # \_\_\_\_\_ State License #: \_\_\_\_\_

**ROSTER OF SUB CONTRACTORS**

(List information as it appears on the contractors license)

Name: \_\_\_\_\_ Type of Work: \_\_\_\_\_  
Address: \_\_\_\_\_ Zip: \_\_\_\_\_ Value \$ \_\_\_\_\_  
Roanoke Co. Bus. Lic. # \_\_\_\_\_

Name: \_\_\_\_\_ Type of Work: \_\_\_\_\_  
Address: \_\_\_\_\_ Zip: \_\_\_\_\_ Value \$ \_\_\_\_\_  
Roanoke Co. Bus. Lic. # \_\_\_\_\_ State License #: \_\_\_\_\_

Name: \_\_\_\_\_ Type of Work: \_\_\_\_\_  
Address: \_\_\_\_\_ Zip: \_\_\_\_\_ Value \$ \_\_\_\_\_  
Roanoke Co. Bus. Lic. # \_\_\_\_\_ State License #: \_\_\_\_\_

Name: \_\_\_\_\_ Type of Work: \_\_\_\_\_  
Address: \_\_\_\_\_ Zip: \_\_\_\_\_ Value \$ \_\_\_\_\_  
Roanoke Co. Bus. Lic. # \_\_\_\_\_ State License #: \_\_\_\_\_

Name: \_\_\_\_\_ Type of Work: \_\_\_\_\_  
Address: \_\_\_\_\_ Zip: \_\_\_\_\_ Value \$ \_\_\_\_\_  
Roanoke Co. Bus. Lic. # \_\_\_\_\_ State License #: \_\_\_\_\_

Name: \_\_\_\_\_ Type of Work: \_\_\_\_\_  
Address: \_\_\_\_\_ Zip: \_\_\_\_\_ Value \$ \_\_\_\_\_  
Roanoke Co. Bus. Lic. # \_\_\_\_\_ State License #: \_\_\_\_\_



Roanoke County  
Community Development Department  
Development Services Division  
Permits and Inspection Office

## Assignment of Responsible Party For Swimming Pool Safety Barrier

Section 4-11 of the Roanoke County Code requires all swimming facilities to be maintained so as not to create a nuisance or hazard to the public safety and to be secured from unauthorized entry by the general public at all times. The Virginia Uniform Statewide Building Code sets forth specific requirements for safety barriers that must be met whenever a swimming pool, spa or hot tub containing water over 24 inches deep is constructed or erected. In many cases the installer's contract does not include or provide for erection of the necessary safety barriers required by the code. The purpose of this form is to designate the party responsible for installing safety barriers whether it be the pool contractor, property owner, fencing contractor or other party. **This form must accompany all applications** for installation of pools, spas, hot tubs or any other structure intended for swimming or recreational bathing.

Address of Pool \_\_\_\_\_

Pool Permit Applicant \_\_\_\_\_

Name of Party responsible for Safety Barriers \_\_\_\_\_

Responsible Party is:  Pool Permit Applicant  Owner  Fencing Contractor

Other (Specify) \_\_\_\_\_

**NOTE:** If the responsible party is anyone other than the pool permit applicant, a separate permit is required for the installation of the safety barrier.

### Statement

I declare by my signature below that I am the party responsible for the installation of all required safety barriers and devices for the above-described installation as required under the Roanoke County Code and the Virginia Uniform Statewide Building Code. **I understand that the pool is not to be filled with water until the required barriers and devices have been installed and approved by the Roanoke County Building Inspection Office.** I also certify that I have received a copy of the brochure entitled "Installing a Swimming Pool" as provided by the Roanoke County Department of Community Development.

\_\_\_\_\_  
Signature of Responsible Party

\_\_\_\_\_  
Date



# TOWN OF VINTON

311 S. POLLARD STREET  
VINTON, VIRGINIA 24179

PHONE (540) 983-0601  
FAX (540) 983-0621

**ANITA MCMILLAN**  
PLANNING AND ZONING DIRECTOR

## CERTIFICATION OF SETBACK COMPLIANCE

APPLICATION NO: \_\_\_\_\_ DATE ISSUED: \_\_\_\_\_

ADDRESS: \_\_\_\_\_ TAX MAP NUMBER: \_\_\_\_\_

I, \_\_\_\_\_ (Owner/Developer/Builder), do hereby certify that the setbacks of this project at the location specified above conform to all applicable standards contained within the Town of Vinton Zoning Ordinance.

I understand that Town of Vinton encourages all applicants for residential building permits to secure a survey as soon as possible to verify that the location of all structures complies with all setback and yard requirements as per the Town of Vinton Zoning Ordinance.

I further understand that once the footing inspection has been conducted by Roanoke County, no further inspections by the County will be conducted until such time as I complete and sign this certification to Town of Vinton indicating my verification of yards and setbacks, including overhangs, cantilevers, decks, porches or any other structure attached to the dwelling.

If, subsequent to my completion of this certification, the structure is found to not be in compliance with Town setback and/or yard requirements, I understand that it will be the responsibility of the property owner to make any such structural or legal subdivision modifications to bring the structure into compliance.

Finally, I understand that the Board of Zoning Appeals of the Town of Vinton does not have the authority under the law to grant variances or exceptions to correct setback or yard violations. I acknowledge that such a violation is a self-imposed condition rather than an unnecessary hardship, since a survey or other actions within my control could have avoided or alleviated this condition.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

# TOWN OF VINTON

NO. \_\_\_\_\_

DATE \_\_\_\_\_

PERMIT FOR:

ZONING      ( ) Value \$ \_\_\_\_\_ Fee \$ \_\_\_\_\_  
SIGN         ( ) Value \$ \_\_\_\_\_ Fee \$ \_\_\_\_\_  
OTHER        ( ) Value \$ \_\_\_\_\_ Fee \$ \_\_\_\_\_

Total Fee \$ \_\_\_\_\_

VALID BUSINESS LICENSE?

License # \_\_\_\_\_  
Locality: \_\_\_\_\_  
Require local license if value over \$25,000

PROPERTY OWNER: \_\_\_\_\_

APPLICANT: \_\_\_\_\_

PERMIT FOR: (include dimensions) \_\_\_\_\_

( ) New    ( ) Alteration    ( ) Addition    ( ) Accessory Bldg.    ( ) New Business    ( ) Home Occupation

ADDRESS \_\_\_\_\_ MAP # \_\_\_\_\_

LOT \_\_\_\_\_ BLOCK \_\_\_\_\_ SECTION \_\_\_\_\_ SUBDIVISION \_\_\_\_\_

ZONING DISTRICT \_\_\_\_\_

INFORMATION ON APPLICANT

Name \_\_\_\_\_

Mailing Address \_\_\_\_\_ City \_\_\_\_\_ Zip \_\_\_\_\_

Telephone \_\_\_\_\_ State/Local License \_\_\_\_\_

VERIFICATION OF RESPONSIBILITY, SERVICE AND CONNECTIONS:

Water \_\_\_\_\_ Sewer \_\_\_\_\_

(Developer assures finished floor elevation is accessible to sanitary sewer)

Solid Waste \_\_\_\_\_ Storm Drainage \_\_\_\_\_

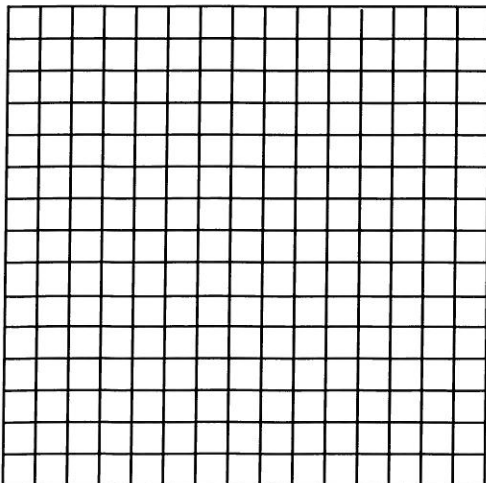
Erosion Control \_\_\_\_\_

I hereby submit this application for said permit, and certify that I will observe all requirements of the Zoning Ordinance, any Federal, State, and Local laws and the Code of the Town Of Vinton. \_\_\_\_\_

Owner or Authorized Agent

Approved By: \_\_\_\_\_

PLOT PLAN



Inspected By: \_\_\_\_\_ Date \_\_\_\_\_

C. O. Issued By: \_\_\_\_\_ C.O. NO. \_\_\_\_\_

For questions on BUILDING CODE call (540) 772-2065.  
For questions on ZONING call (540) 983-0601.

- COPY DISTRIBUTION:
1. White - Office Copy
  2. Yellow - Office Copy
  3. Pink - Applicant Copy
  4. Gold - Treasurer Copy



**AGREEMENT IN LIEU OF AN EROSION & SEDIMENT CONTROL PLAN**

Land Disturbing Permit #: \_\_\_\_\_

Building Permit #: \_\_\_\_\_

Subdivision Name: \_\_\_\_\_

Tax Map #: \_\_\_\_\_

In lieu of submission of an erosion and sediment control plan for the construction of this single family property or property with a land disturbance of 2,500 – 4,999 square feet, I agree to comply with reasonable requirements determined necessary by employees of the County of Roanoke, representing the Erosion and Sediment Control Program Administrator. Such requirements shall be based on the conservation standards contained in the County of Roanoke Erosion and Sediment Control Ordinance, and shall represent the minimum practices necessary to provide adequate control of erosion and sedimentation on or resulting from this project.

As a minimum, all denuded areas on the parcel shall be stabilized within seven (7) days of final grading with permanent vegetation or a protective ground cover suitable for the time of year.

I further understand that failure to comply with such requirements within three (3) working days following notice by the representatives of the County of Roanoke could result in citation for violation of the County of Roanoke Erosion and Sediment Control Ordinance and/or an engineered site plan needing to be submitted to correct the violations.

Measures Specified by the Plan Approving Authority: **MUST COMPLY WITH MINIMUM STANDARDS:**  
**MS-1, 2, 3, 4, 7, 8, 17.**

Signature of Landowner: \_\_\_\_\_

Name of Landowner: \_\_\_\_\_

Responsible Land Disturber (RLD) or Person Responsible for E & S:

\_\_\_\_\_  
\_\_\_\_\_

Approved By: \_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



## Support Building Safety!

For more information about building safety codes and local requirements, contact your local building department below:

Roanoke County/Town of Vinton  
 Building Commissioner's Office  
 Joel Baker, Commissioner  
 Justin Biller, Asst. Commissioner  
 540-772-2065

### OTHER SAFETY TIPS

Building safety codes protect children and adults in pools, hot tubs and spas. Other safety measures include:

- Alert adult supervision of children is essential in pools, hot tubs and spas at all times. There is no substitute for adult supervision to ensure child safety in the water.
- Assign an adult to watch the pool at all times when children are present, making sure there are no distractions such as talking with friends or cooking on a grill.
- The assigned adult must be watching the children at all times.
- Don't assume guests or their children can swim. Ask and observe.
- Don't leave toys in or around the pool area.
- Toddlers and infants should have physical contact with an adult at all times while in the pool area.
- Infants and small children should have constant supervision.
- Make sure all doors and gates leading to the pool or spa area are securely closed when the pool is not in use.
- Do not allow anyone impaired by alcohol or drugs to use the pool.

### SAFETY GEAR

Keep a phone within easy reach of the pool area for emergency calls. Post local emergency numbers in the pool area. Always keep basic lifesaving equipment by the pool and know how to use it. A pole, rope and personal flotation devices are recommended.

### EDUCATION

Make sure at least one adult supervising activities around the pool has cardiopulmonary resuscitation (CPR) training.

- Teach your children to swim.
- Post CPR instructions in the pool area.
- Post basic Rules for Pool Safety in a visible spot near the pool.

### WATER QUALITY

Clean and clear water is essential for safe pool, spa and hot tub use. If you cannot see the bottom of the pool at its deepest point, the pool should not be used and you should contact your pool professional.

### ELECTRICITY

There should be no electrical devices in the pool, spa and hot tub area unless they are installed, maintained and inspected by qualified professionals. Electrical devices also need to be protected by a ground fault circuit interrupter (GFCI).

### KID CONNECTIONS

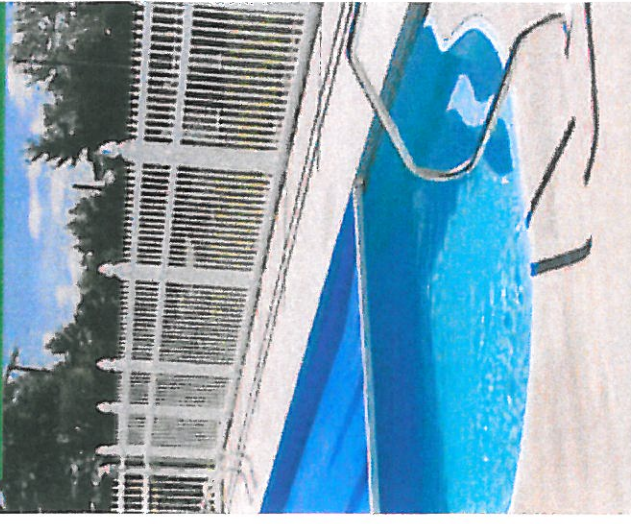
Sonny, the Friendly Fish, and Bubbles, the safe hot tub and pool buddy, teach children about pool, spa and hot tub safety through fun coloring and activity books at [www.Splashzoneusa.com](http://www.Splashzoneusa.com).



INTERNATIONAL  
 CODE COUNCIL  
 People Helping People Build a Safer World™

## Prevent Accidents, Save Lives

Pool, Spa and Hot Tub Safety



1-888-ICC-SAFE (422-7233) | [www.iccsafe.org](http://www.iccsafe.org)

Developed and provided by



1-888-ICC-SAFE (422-7233) | [www.buildingsafetymonth.org](http://www.buildingsafetymonth.org)

10-02885



# Safe Pools, Spas and Hot Tubs Save Lives

Pools and spas are great for play, exercise and therapy. However, an alarming number of water-related deaths and injuries occur in and around pools each year. Properly following building safety codes can help prevent such tragedies and ensure family and friends have a safer, more enjoyable experience when using pools, spas and hot tubs.



## STATISTICS

Every year, more than 250 children under the age of five drown in swimming pools and more than 2,700 children seek medical treatment for pool-related accidents—mostly in backyard pools, according to the U.S. Consumer Product Safety Commission.

More than 75 percent of swimming pool accident victims were missing for five minutes or less when they were found drowned or in serious trouble.

One or both parents were supervising victims when the swimming pool accident occurred.

## WHAT WE CAN DO

Building safety codes are life savers. International Code Council® codes include specific provisions to make pools and spas safe. For example:

### FENCES

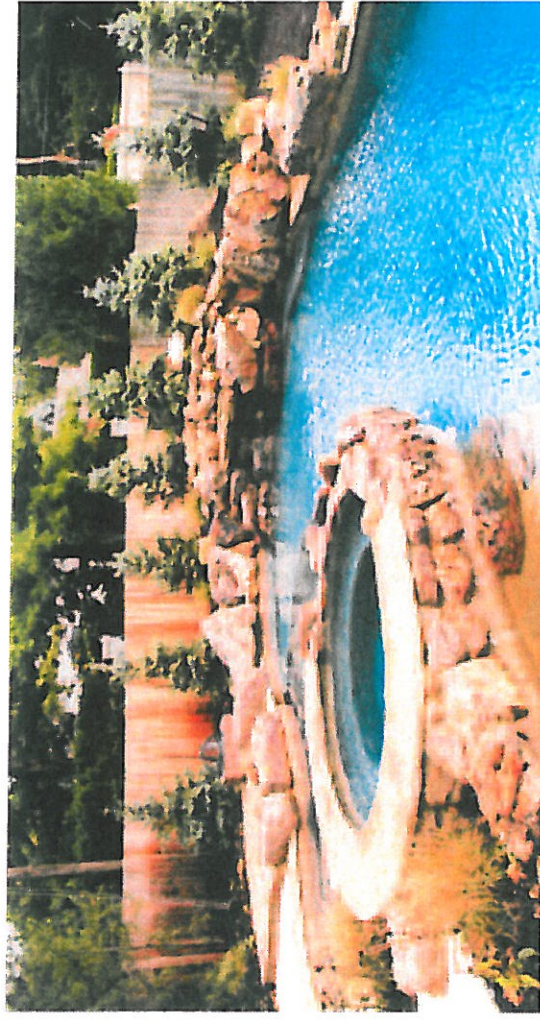
- Install a fence at least four-foot-high around the pool area.
- Install a self-latching gate or door in the fence to make pool areas inaccessible to children and unauthorized swimmers.
- Spas and hot tubs also should have a similar fence or an approved, lockable safety cover.

### DOOR ALARMS

Install a door alarm. When the door or gate is opened, the alarm sounds and acts as an early warning device.

### POOL ALARMS

Install a pool alarm to detect accidental or unauthorized entrance into the water. While the alarm provides an immediate warning, it does not substitute for the fences, door alarms and safety covers required by the code.



## Saving, Enhancing Lives through Safety Codes

### SAFETY COVERS

Install either an automatic or manually operated, approved safety cover to completely block access to water in the pool, spa or hot tub. Never allow anyone to stand or play on a pool cover.

### DRAIN (SUCTION OUTLET) COVERS/GRATES

All pool and hot tub drains (suction outlets) must have a cover or grate that meets industry standards for suction fittings marked with “VGB 2008” indicating compliance with ANSI/ASME A112.19.8 2007.

A cover protects people from entrapment, including suction. Without the cover, some part of a person’s body (especially a limb)

may be trapped, causing injury or drowning. If a cover is broken, loose or missing, the pool should be closed immediately until the drain cover is replaced or repaired by a professional. No one should be allowed to play with a drain cover or near a drain.

### OUTLET CONFIGURATION

Pools and spas with drains should have more than one drain (suction outlet), spaced a minimum of 3 feet apart; one or more unblockable drains or no main drain.

### VACUUM RELEASE OR VENTED SYSTEMS

Pools and spas with a single drain, other than an unblockable outlet

must have one of the following: a safety vacuum release system (SVRS); an engineered vent system; a gravity drainage system; or other safety features that comply with industry standards (ANSI/APSP-7-2006).

### POOL CLEANER FITTINGS

Pools and spas with wall vacuum fittings must have self closing, self latching covers located at least 6 inches and not greater than 18 inches below the minimum operating water level, or as an attachment to the skimmer.

more, spacing between vertical members shall not exceed 4 inches. Decorative cutouts shall not exceed 1 3/4 inches in width.

6. Maximum mesh size for chain link fences shall be 1 1/4 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 3/4 inches.

7. Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members shall be not more than 1 3/4 inches.

8. Access gates shall comply with the requirements above(1-7) and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outwards away from the pool and shall be self-closing and self-latching. Where the release mechanism of the self-latching device is located at least 3 inches below the top of the gate on the side facing the pool. The gate and barrier should have no opening greater than 1/2 inch within 18 inches of the latch release mechanism.

9. Where a wall of the home serves as a part of the barrier and contains a door that provides direct access to the pool, one of the following shall comply,

a. An alarm system which sounds when the door and/or screen are opened. The alarm should sound for 30 seconds or more immediately after the door is opened. The alarm should be loud: at least 85 decibels when measured 10 feet away from the alarm mechanism. The alarm should

be distinct from other sounds in the house, such as doorbell, telephone or smoke alarm. The alarm should have an automatic reset feature. The alarm should be equipped with manual means such as touchpads or switches, to deactivate temporarily the alarm for a single opening from either direction.

b. Doors shall have a self-closing and self-latching device with the release mechanism located a minimum of 54 inches above the floor. Swinging doors shall open away from the pool.

c. The pool shall be equipped with a power safety cover. Where in a closed position, the cover shall be capable of holding a weight of 485 lbs., shall not have openings that allow passage of a 4 1/2 inch sphere and shall incorporate a system to drain standing water that collects on the cover.

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 to the pool or steps should be secured, locked or removed to prevent access.

b. the ladder or steps should be surrounded by a barrier which meets paragraphs 1 through 9. When the ladder or steps are secured, locked, or removed, any opening created should not allow the passage of a 4 inch diameter sphere.

# INSTALLING A SWIMMING POOL

ANSWERS TO YOUR MOST  
FREQUENTLY ASKED QUESTIONS



Roanoke County Community Development  
5204 Bernard Drive  
Roanoke, VA 24018  
Phone (540) 772-2065  
Fax (540) 772-2108  
[www.roanokecountyva.gov](http://www.roanokecountyva.gov)



## WHEN DO I NEED A PERMIT FOR A SWIMMING POOL?

A swimming pool, is any structure containing water used for swimming or recreational bathing. Those requiring a permit will be over 150 sq. ft. in surface area, over 5000 gal. of water or contain 24 inches of water or more. This includes in-ground, above-ground, and on-ground swimming pools, hot tubs and spas.

A swimming pool is considered an accessory structure to the residential structure. It will need to meet all setbacks (distances to property lines) for zoning before obtaining a permit. To establish the setbacks for your property, please call the Roanoke County Building Department (540) 772-2065, be prepared to give a site address.

## WHAT PERMITS WILL I NEED?

To obtain your permits you will need to come to the Roanoke County Building Department at 5204 Bernard Drive in Roanoke.(second floor)  
A building permit and an electrical permit will be needed. As the homeowner you may pull your own permits or the contractor may pull the permits. Below is the information necessary for your permit.

- Address of site
- Owner name and phone number
- Estimated cost of construction
- A Plot Plan showing estimated distances from new structure to property lines. You will be asked to draw the structure on a plat of your property showing distances to all property lines. If you

have a survey of your property this will be helpful.

- 2 copies of the plot plan showing soil and erosion measures, contours and steep slope information.
- Shrink-swell test results. Only in-ground masonry pools falling within the counties designated shrink-swell soil areas need this information. Call the building department for further information. (540-772-2065)

## WHAT INSPECTIONS WILL I NEED?

Pool Bonding Inspection (electrical)- When the electrical work is grounded around the pool before the concrete is poured. The inspector will look for the following requirements to pass the inspection.

1. The pool light, frame, handrails/ladder, deck and diving board (all metallic parts) grounds are connected to rebar and rebar to ground rod.

Final Electrical Inspection-When the job is completed the inspector will check the following before passing the pool for usage.

1. All grounds are hooked to ground rod.
2. Pump on pool is on GFI circuit. (no closer than 5 ft of the pool.
3. Pool heater is on GFI circuit.
4. Pump is bonded.

Final Building Inspection-This inspection on pools is called for after the entire project is complete. The inspector will be checking the building code regulations for barriers. (fencing) The barrier will need to meet the following code requirements.

1. The top of the barrier shall be at least 48 inches above finished ground level measured on the side of the barrier which faces away from the swimming pool. The maximum vertical clearance between finished ground level and the barrier which faces away from the pool. Where the top of the pool structure is above ground level, such as an above ground pool, the barrier shall be at finished ground level, such as the pool structure, or shall be mounted on top of the pool structure. Where the barrier is mounted on the pool structure, the opening between the top surface of the pool frame and the bottom of the barrier shall not allow passage of a 4-inch diameter sphere.
2. Openings in the barrier shall not allow passage of a 4-inch diameter sphere.
3. Solid barriers 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 13/4 inches in width. Decorative cutouts shall not exceed 1 3/4 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



# Portable Pools Pose Drowning Risk for Young Kids

Mon, Jun 20, 2011

MONDAY, June 20 (HealthDay News) -- Portable swimming pools, including the increasingly popular, inflatable models, pose serious risks to young children, experts warn.

In a new study, investigators at Nationwide Children's Hospital in Columbus, Ohio, detail the drowning deaths of more than 200 children under 12 years old linked to a variety of above-ground pools, some large and deep, others small and shallow.

"About every five days a child drowns in a portable pool in the U.S.," said lead researcher Dr. Gary A. Smith, director of the hospital's Center for Injury Research and Policy.

Because these pools are inexpensive and easy to assemble, many parents may not consider them as big a risk as in-ground pools, he said. The greatest risks are for children younger than 5 years, the researchers found.

The report, published in the June 20 online edition of *Pediatrics*, highlights the need for safety precautions around *all* pools, safety advocates said.

"Safe Kids has been concerned about the increasing use of backyard pools that are too small for consumers to consider investing in fencing but too large to make them easy to empty and secure safely after each use," said Meri-K Appy, president of Safe Kids USA in a statement Friday. "This important study confirms our speculation that portable pools in backyards across America pose special risks to young children."

For the study, Smith's team used 2001-2009 data from the U.S. Consumer Product Safety Commission. During this period, the researchers identified 209 drowning deaths and 35 near-drownings in children under 12.

They found that 94 percent of the children were under 5 and most (56 percent) were boys. In addition, about three-quarters of the deaths took place in the child's own yard, usually during the summer.

More than 40 percent of the drownings occurred when the child was being supervised; 39 percent happened with no adult supervision; and 18 percent were blamed on a lapse of supervision.

About 40 percent of the drownings happened in a shallow wading pool, Smith said.

"That's in 18 inches or less of water," Smith said. "Children can drown in very small amounts of water. Very young children can drown in a five-gallon bucket with water in the bottom. It only takes a couple of inches and a few minutes."

"Close supervision of young children around water is really important, but supervision alone isn't enough," he continued.

While a variety of safety measures such as alarms and fencing are available for in-ground pools, Smith said, this is not the case for portable pools. The researchers call for industry development of affordable fencing and reliable pool alarms and covers for portable pools.

Many techniques used to deny access to in-ground pools, such as fencing, cost more than a portable pool itself, he said. "We have to come up with other strategies that are affordable and effective for portable pools."

Experts said the study also raises concerns about pool ladders. "Most of the kids got into the pool using a ladder that was provided with the pool," Smith said.

He suggested removing the pool ladder when no one is bathing and storing it where children can't get to it.

Dr. Barbara Gaines, director of trauma and injury prevention at Children's Hospital of Pittsburgh, said that "this reminds us that while water is very inviting for children, it is also extremely hazardous."

Parents need to be very watchful when their children are in and around water, including pools, ponds and bathtubs, Gaines said. "Never underestimate water."

Gaines advises parents who have wading pools to empty it out when the pool is not in use. "That's the safest thing," she said.

Also, parents must actively supervise their children, Gaines said. "Someone has to be on pool duty."

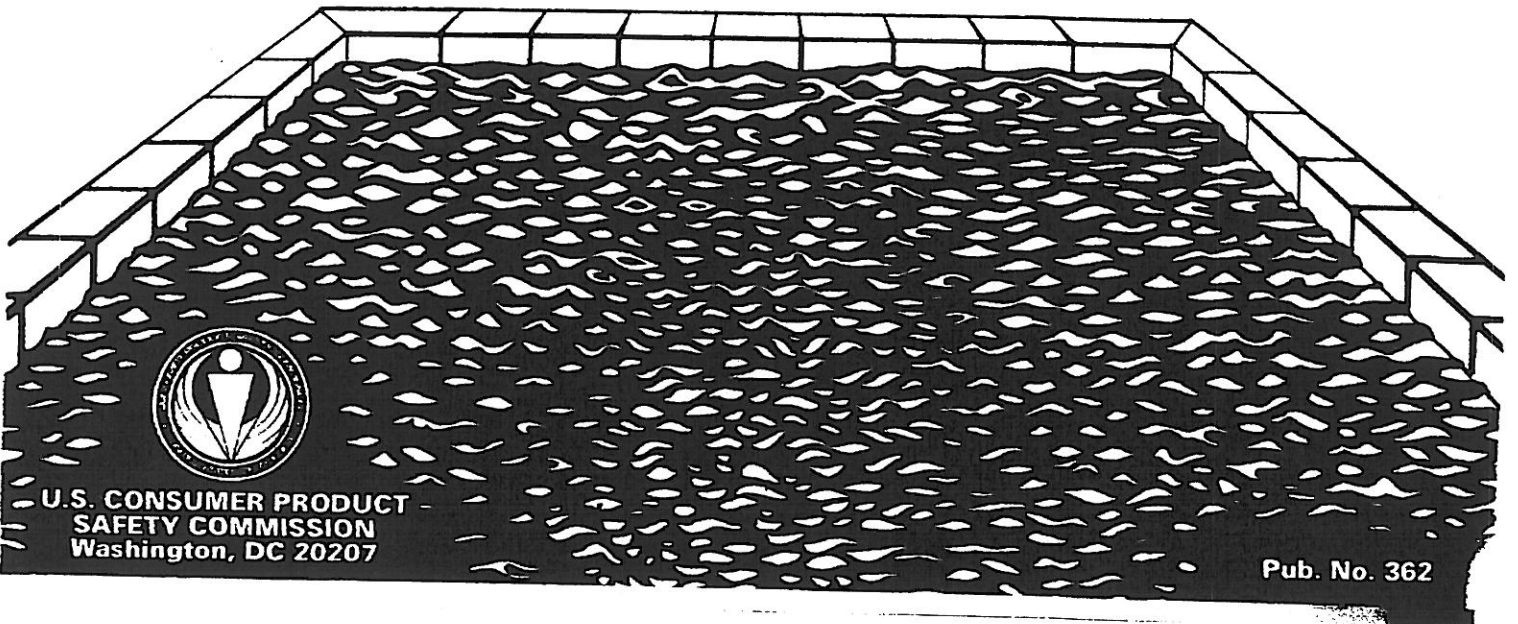
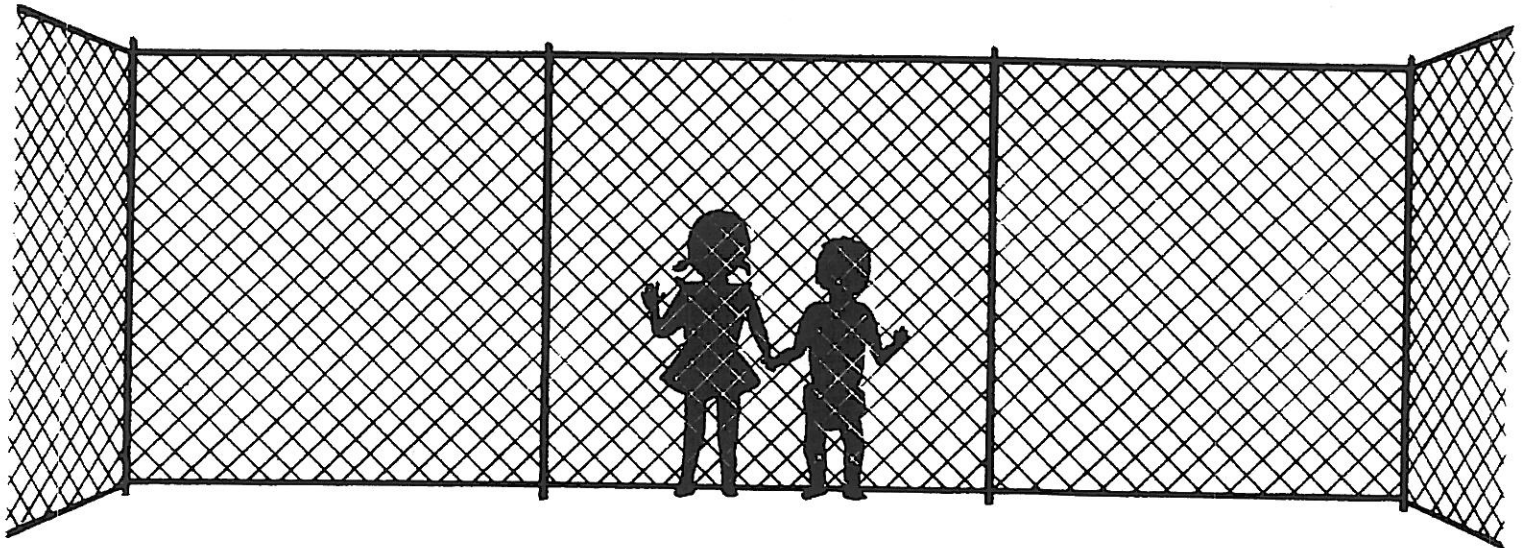
Safe Kids promotes a pool-safety concept called "Lock, Look and Learn":

- **LOCK:** Erect fencing at least 4 feet high with a self-latching gate and keep it locked at all times unless an adult is present.
- **LOOK:** Parents and caregivers should watch children in or near the water at all times, and not socialize, read or sleep.
- **LEARN:** "Adults should learn to swim themselves and provide swimming lessons to their children from an early age," Appy said. They should also know how to respond to an emergency -- "use rescue equipment, call 911 and perform CPR," she added.

**More information** For more information on kid's safety, visit the [Safe Kids USA](#).

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# SAFETY BARRIER GUIDELINES FOR HOME POOLS



U.S. CONSUMER PRODUCT  
SAFETY COMMISSION  
Washington, DC 20207

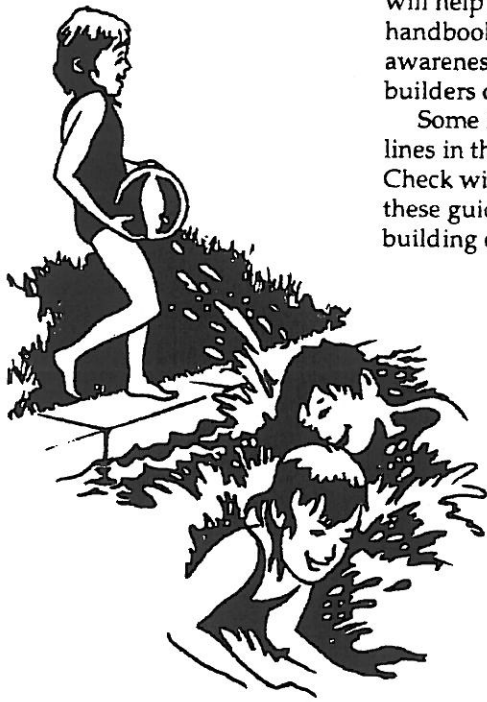
Pub. No. 362

Swimming pools should always be happy places. Unfortunately, each year thousands of American families confront swimming pool tragedies — drownings and near-drownings of young children. These tragedies are preventable. This U.S. Consumer Product Safety Commission (CPSC) handbook offers guidelines for pool barriers that can help prevent most submersion incidents involving young children.

This handbook is designed for use by owners, purchasers, and builders of residential pools, spas, and hot tubs.

The swimming pool barrier guidelines are not a CPSC standard and are not mandatory requirements. Therefore, the Commission does not endorse these guidelines as the sole method to minimize pool drownings of young children. The Commission believes, however, that the safety features recommended in this handbook will help make pools safer. Publication of this handbook is expected to promote pool safety awareness among owners, purchasers and builders of swimming pools.

Some localities have incorporated the guidelines in this handbook into their building codes. Check with your local authorities to see whether these guidelines are included in your area's building code or in other regulations.



## Why the Swimming Pool Guidelines Were Developed

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Each year, hundreds of young children die and thousands come close to death due to submersion in residential swimming pools. CPSC has estimated that each year about 300 children under 5 years old drown in residential swimming pools. The Commission estimates hospital emergency room treatment is required for approximately another 2,300 children under 5 years of age who were submerged in residential pools.

In the late 1980s, CPSC did an extensive study of swimming pool accidents, both fatal drownings and near-fatal submersions, in California, Arizona and Florida, states in which home swimming pools are very popular and in use during much of the year. The findings from that study led Commission staff to develop the guidelines in this handbook.

- In California, Arizona and Florida, drowning was the leading cause of accidental death in and around the home for children under the age of 5 years.
- 75 percent of the children involved in swimming pool submersion or drowning accidents were between 1 and 3 years old.
- Boys between 1 and 3 years old were the most likely victims of fatal drownings and near-fatal submersions in residential swimming pools.

- Most of the victims were being supervised by one or both parents when the swimming pool accident occurred.

- Nearly half of the child victims were last seen in the house before the pool accident occurred. In addition, 23 percent of the accident victims were last seen on the porch or patio, or in the yard.

This means that fully 69 percent of the children who became victims in swimming pool accidents were not expected to be in or at the pool, but were found drowned or submerged in the water.

- 65 percent of the accidents occurred in a pool owned by the victim's immediate family, and 33 percent of the accidents occurred in pools owned by relatives or friends.

- Fewer than 2 percent of the pool accidents were a result of children trespassing on property where they didn't live or belong.

- 77 percent of the swimming pool accident victims had been missing for five minutes or less when they were found in the pool drowned or submerged.

The speed with which swimming pool drownings and submersions can occur is a special concern: by the time a child's absence is noted, the child may have drowned. Anyone who has cared for a toddler knows how fast young children can move. Toddlers are inquisitive and impulsive and lack a realistic sense of danger. These behaviors, coupled with a child's ability to move quickly and unpredictably, make swimming pools particularly hazardous for households with young children.

Swimming pool drownings of young children have another particularly insidious feature: these are silent deaths. It is unlikely that splashing or screaming will occur to alert a parent or caregiver that a child is in trouble.

CPSC staff have reviewed a great deal of data on drownings and child behavior, as well as information on pool and pool barrier construction. The staff concluded that the best way to reduce child drownings in residential pools was for pool owners to construct and maintain barriers that would prevent young children from gaining access to pools. However, there are no substitutes for diligent supervision.



# THE SWIMMING POOL BARRIER GUIDELINES

## How to Prevent a Child from Getting OVER a Pool Barrier

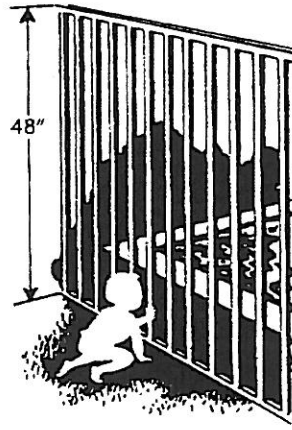
This section explains the CPSC swimming pool barrier guidelines with illustrated descriptions of pool barriers. Definitions of terms used in the guidelines are provided on page 6.

The definition of pool includes spas and hot tubs; the swimming pool barrier guidelines therefore apply to these structures as well as to conventional swimming pools.

**A successful pool barrier prevents a child from getting OVER, UNDER, or THROUGH and keeps the child from gaining access to the pool except when supervising adults are present.**

A young child can get over a pool barrier if the barrier is too low or if the barrier has handholds or footholds for a child to use when climbing.

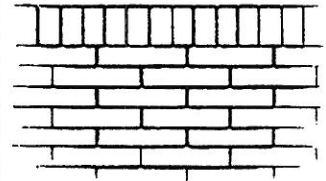
The guidelines recommend that the top of a pool barrier be at least 48 inches above grade, measured on the side of the barrier which faces away from the swimming pool.



Guidelines recommend eliminating handholds and footholds and minimizing the size of openings in a barrier's construction.

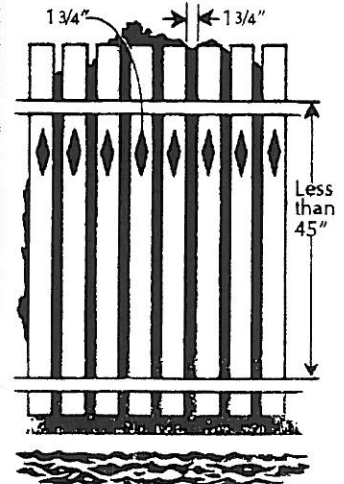
### For a Solid Barrier:

No indentations or protrusions should be present, other than normal construction tolerances and masonry joints.

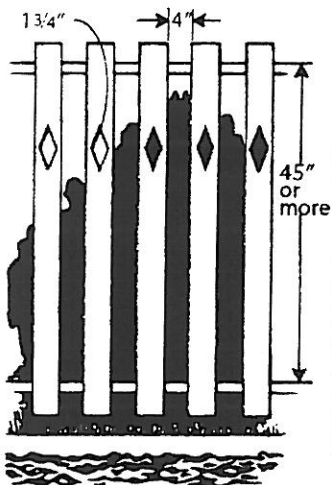


### For a Barrier (Fence) Made Up of Horizontal and Vertical Members:

If the distance between the tops of the horizontal members is less than 45 inches, the horizontal members should be on the swimming pool side of the fence. The spacing of the vertical members should not exceed 1 3/4 inches. This size is based on the foot width of a young child and is intended to reduce the potential for a child to gain a foothold. If there are any decorative cutouts in the fence, the space within the cutouts should not exceed 1 3/4 inches.

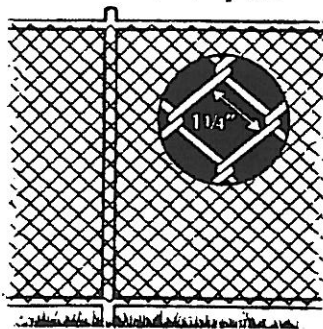


If the distance between the tops of the horizontal members is **more** than 45 inches, the horizontal members can be on the side of the fence facing away from the pool. The spacing between vertical members should not exceed 4 inches. This size is based on the head breadth and chest depth of a young child and is intended to prevent a child from passing through an opening. Again, if there are any decorative cutouts in the fence, the space within the cutouts should not exceed 1 $\frac{3}{4}$  inches.

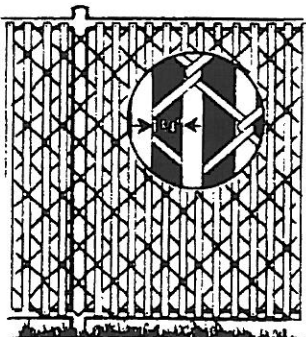


**For a Chain Link Fence:**

The mesh size should not exceed 1 $\frac{1}{4}$  inches square

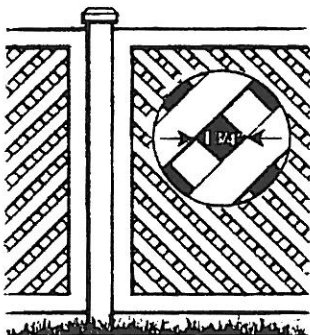


unless slats, fastened at the top or bottom of the fence, are used to reduce mesh openings to no more than 1 $\frac{3}{4}$  inches.

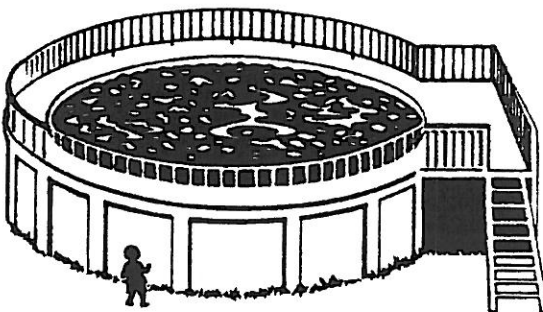


**For a Fence Made Up of Diagonal Members (Latticework):**

The maximum opening in the lattice should not exceed 1 $\frac{3}{4}$  inches.

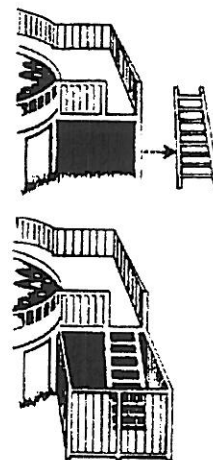


**For Aboveground Pools:**



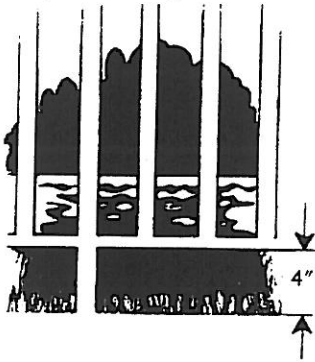
Aboveground pools should have barriers. The pool structure itself serves as a barrier or a barrier is mounted on top of the pool structure.

Then, there are two possible ways to prevent young children from climbing up into an aboveground pool. The steps or ladder can be designed to be secured, locked or removed to prevent access, or the steps or ladder can be surrounded by a barrier such as those described above.



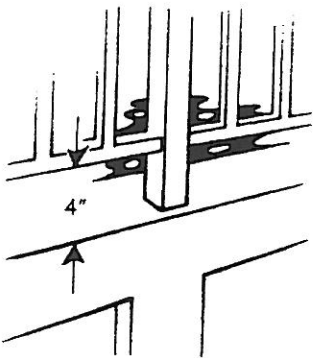
## How to Prevent a Child From Getting UNDER a Pool Barrier

For any pool barrier, the maximum clearance at the bottom of the barrier should not exceed 4 inches above grade, when the measurement is done on the side of the barrier facing away from the pool.



### Aboveground Pool with Barrier on Top of Pool:

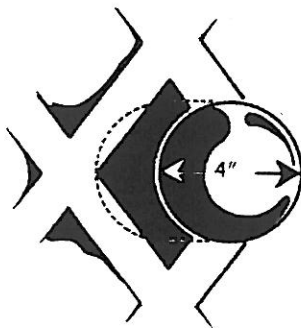
If an aboveground pool has a barrier on the top of the pool, the maximum vertical clearance between the top of the pool and the bottom of the barrier should not exceed 4 inches.



## How to Prevent a Child From Getting THROUGH a Pool Barrier

Preventing a child from getting through a pool barrier can be done by restricting the sizes of openings in a barrier and by using self-closing and self-latching gates.

To prevent a young child from getting through a fence or other barrier, all openings should be small enough so that a 4 inch diameter sphere can not pass through. This size is based on the head breadth and chest depth of a young child.



### Gates:

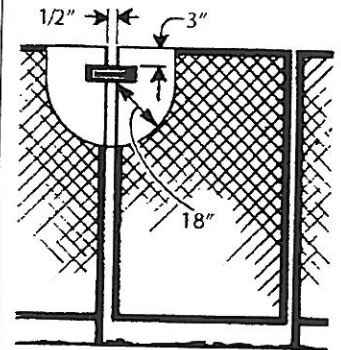
There are two kinds of gates which might be found on a residential property. Both can play a part in the design of a swimming pool barrier.

### Pedestrian Gates:

These are the gates people walk through. Swimming pool barriers should be equipped with a gate or gates which restrict access to the pool. A locking device should be included in the gate design. Gates should open out from the pool and should be self-closing and self-latching. If a gate is properly designed, even if the gate is not completely latched, a young child pushing on the gate in order to enter the pool area will at least close the gate and may actually engage the latch.



When the release mechanism of the self-latching device is less than 54 inches from the bottom of the gate, the release mechanism for the gate should be at least 3 inches below the top of the gate on the side facing the pool. Placing the release mechanism at this height prevents a young child from reaching over the top of a gate and releasing the latch.



Also, the gate and barrier should have no opening greater than 1/2 inch within 18 inches of the latch release mechanism. This prevents a young child from reaching through the gate and releasing the latch.

### All Other Gates (Vehicle Entrances, Etc.):

Other gates should be equipped with self-latching devices. The self-latching devices should be installed as described for pedestrian gates.

### When the House Wall Forms Part of the Pool Barrier:

In many homes, doors open directly onto the pool area or onto a patio which leads to the pool.



In such cases, the wall of the house is an important part of the pool barrier, and passage through any doors in the house wall should be controlled by security measures. The importance of controlling a young child's movement from house to pool is demonstrated by the statistics obtained during CPSC's study of pool incidents in California, Arizona and Florida: almost half (46 percent) of the children who became victims of pool accidents were last seen in the house just before they were found in the pool.

All doors which give access to a swimming pool should be equipped with an audible alarm which sounds when the door and/or screen are opened. The alarm should sound for 30 seconds or more immediately

after the door is opened. The alarm should be loud: at least 85 dBA (decibels) when measured 10 feet away from the alarm mechanism. The alarm sound should be distinct from other sounds in the house, such as the telephone, doorbell and smoke alarm. The alarm should have an automatic reset feature.

Because adults will want to pass through house doors in the pool barrier without setting off the alarm, the alarm should have a switch that allows adults to temporarily deactivate the alarm for up to 15 seconds. The deactivation switch could be a touchpad (keypad) or a manual switch, and should be located at least 54 inches above the threshold of the door covered by the alarm. This height was selected based on the reaching ability of young children.

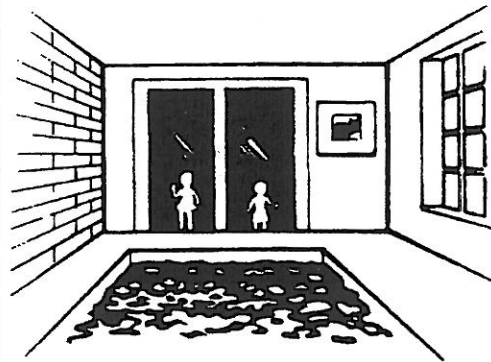
Power safety covers can be installed on pools to serve as security barriers. Power safety covers should conform to the specifications in ASTM F 1346-91. This standard specifies safety performance requirements for pool covers to protect young children from drowning.

If you wish further information on this standard, contact ASTM, Inc., Philadelphia, Pa. (formerly the American Society for Testing & Materials), directly.

Self-closing doors with self-latching devices could also be used to safeguard doors which give ready access to a swimming pool.

### Indoor Pools:

When a pool is located completely within a house, the walls that surround the pool should be equipped to serve as pool safety barriers. Measures recommended above where a house wall serves as part of a safety barrier also apply for all the walls surrounding an indoor pool.



# BARRIERS FOR RESIDENTIAL SWIMMING POOL, SPAS, AND HOT TUBS

The preceding explanations of the U.S. Consumer Product Safety Commission's pool barrier guidelines were provided in order to make it easier for pool owners, purchasers, builders, technicians and others to understand and apply the guidelines themselves. Detailed guidelines follow. Reading the following guidelines in conjunction with the diagrams previously provided may be especially helpful. For further information, consult your local building department or code authority.

## Application

The guidelines presented in this document are intended to provide a means of protection against potential drownings and near-drownings to children under 5 years of age by restricting access to residential swimming pools, spas, and hot tubs.

## Definitions

**Aboveground/onground pool.** See definition of swimming pool.

**Barrier.** A fence, a wall, a building wall or a combination thereof which completely surrounds the swimming pool and obstructs access to the swimming pool.

**Hot tub.** See definition of swimming pool.

**Inground pool.** See definition of swimming pool.

**Residential.** That which is situated on the premises of a detached one- or two-family dwelling or a one-family townhouse not more than three stories in height.

**Spa, nonportable.** See definition of swimming pool.

**Spa, portable.** A non-permanent structure intended for recreational bathing, in which all controls, water-heating, and water-circulating equipment are an integral part of the product and which is cord-connected (not permanently electrically wired).

**Swimming pool.** Any structure intended for swimming or recreational bathing that contains water over 24 inches deep. This includes inground, aboveground, and onground swimming pools, hot tubs, and spas.

**Swimming pool, indoor.** A swimming pool which is totally contained within a structure and surrounded on all four sides by walls of said structure.

**Swimming pool, outdoor.** Any swimming pool which is not an indoor pool.

## Guidelines

### Section I. Outdoor Swimming Pool

An outdoor swimming pool, including an inground, aboveground, or onground pool, hot tub, or spa, should be provided with a barrier which complies with the following:

1. The top of the barrier should 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 bottom of the barrier should be 4 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 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 should be 4 inches.
2. Openings in the barrier should not allow passage of a 4-inch diameter sphere.
3. Solid barriers, which do not have openings, such as a masonry or stone wall, should 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 should be located on the swimming pool side of the fence. Spacing between vertical members should not exceed 1 3/4 inches in width. Where there are decorative cutouts, spacing within the cutouts should not exceed 1 3/4 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 should not exceed 4 inches. Where there are decorative cutouts, spacing within the cutouts should not exceed 1 3/4 inches in width.

6. Maximum mesh size for chain link fences should not exceed 1 1/4 inch square unless the fence is provided with slats fastened at the top or the bottom which reduce the openings to no more than 1 3/4 inches.

7. Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members should be no more than 1 3/4 inches.

8. Access gates to the pool should comply with Section I, Paragraphs 1 through 7, and should be equipped to accommodate a locking device. Pedestrian access gates should open outward, away from the pool, and should be self-closing and have a self-latching device. Gates other than pedestrian access gates should 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, (a) the release mechanism should 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 should have no opening greater than 1/2 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 should apply:

(a) All doors with direct access to the pool through that wall should be equipped with an alarm which produces an audible warning when the door and its screen, if present, are opened. The alarm should sound continuously for a minimum of 30 seconds immediately after the door is opened. The alarm should have a minimum sound pressure rating of 85 dBA at 10 feet and the sound of the alarm should be distinctive from other household sounds, such as smoke alarms, telephones, and door bells. The alarm should automatically reset under all conditions. The alarm should be equipped with manual means, such as touchpads or switches, to temporarily deactivate the alarm for a single opening of the door from either direction. Such deactivation should last for no more than 15 seconds. The deactivation touchpads or switches should be located at least 54 inches above the threshold of the door.

(b) The pool should be equipped with a power safety cover which complies with ASTM F1346-91 listed below.

(c) Other means of protection, such as self-closing doors with self-latching devices, are acceptable so long as the degree of protection afforded is not less than the protection afforded by (a) or (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 to the pool or steps should be capable of being secured, locked or removed to prevent access, or (b) the ladder or steps should be surrounded by a barrier which meets Section I, Paragraphs 1 through 9. When the ladder or steps are secured, locked, or removed, any opening created should not allow the passage of a 4-inch diameter sphere.

## Section II. Indoor Swimming Pool.

All walls surrounding an indoor swimming pool should comply with Section I, Paragraph 9.

## Section III. Barrier Locations.

Barriers should be located so as to prohibit permanent structures, equipment or similar objects from being used to climb the barriers.

## Exemptions

A portable spa with a safety cover which complies with ASTM F1346-91 listed below should be exempt from the guidelines presented in this document. But, swimming pools, hot tubs, and non-portable spas with safety covers should not be exempt from the provisions of this document.

**ASTM F1346-91.** *Standard Performance Specification for Safety Covers and Labeling Requirements for All Covers for Swimming Pools, Spas and Hot Tubs.*

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