



## New York State Department of State Swimming Pool Rules and Regulations

found in the Uniform Fire Prevention and Building Code (The "Uniform Code")







The term "Swimming Pool" means any structure intended for swimming, recreational bathing or wading which contains or which is <u>designed to contain water over 24 inches deep</u>. This includes in-ground, above-ground and on-ground pools; indoor pools; hot tubs; spas; and fixed-in-place wading pools.

A Detailed Summary of Swimming Pool Safety Requirements can be found in the DOS document titled <u>Current Requirements for Swimming Pools contained in the Uniform Fire Prevention and Building Code (The "Uniform Code")</u> (htm) (<u>click here for PDF version</u>)

Please contact your local municipality for additional Code and Zoning Requirements. Local laws regarding fencing and other safety requirements for swimming pools may be more restrictive than requirements for swimming pools contained in the Uniform Code.

New York State Department of State Swimming Pool Rules and Regulations found in the Uniform Fire Prevention and Building Code (The "Uniform Code")



## Brief Summary of Alarm Requirements for Residential Swimming Pools:

Every swimming pool that is installed, constructed or <u>substantially modified</u> after December 14, 2006 must be equipped with an approved pool alarm which:

is capable of detecting a child entering the water and giving an audible alarm when it detects a child entering the water;

is audible poolside and at another location on the premises where the swimming pool is located;

is not an alarm device which is located on person(s) or which is dependent on device(s) located on person(s) for its proper operation.

A pool alarm must be capable of detecting entry into the water at any point on the surface of the swimming pool. If necessary to provide detection capability at every point on the surface of the swimming pool, more than one pool alarm must be installed.

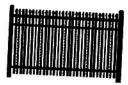
Pool alarms are not required in:

a hot tub or spa equipped with a safety cover or

any swimming pool (other than a hot tub or spa) equipped with an <u>automatic power safety</u>

Specific Swimming Pool Alarm Requirements can be found in 19NYCRR Part 1228 or in the DOS document titled "Current Requirements for Swimming Pools contained in the Uniform Fire Prevention and Building Code (The "Uniform Code")"

New York State Department of State Swimming Pool Rules and Regulations found in the Uniform Fire Prevention and Building Code (The "Uniform Code")



## **Pool Barriers (Fences)**

## Brief summary of Barrier Requirements for Outdoor Residential Swimming Pools:

The barrier must completely surround the swimming pool and must obstruct access to the swimming pool.

The barrier must be at least 4 feet (48 inches) high.

In the case of an above-ground pool, the barrier may be at ground level or mounted on top of the pool structure; however, if the barrier is mounted on top of the pool structure, the space between the top of the pool structure and the bottom of the barrier cannot exceed 4 inches.

A building wall can form part of the required barrier. However, where a wall of a dwelling serves as part of the barrier, at least one of the following requirements must be satisfied:

the pool must be equipped with a powered safety cover

all doors with direct access to the pool through that wall must be equipped with an alarm

other means of protection, such as self-closing doors with self-latching devices, which are approved by the governing body

In the case of an above-ground pool, the pool structure itself can serve as a part of the required barrier, provided that the pool structure is sufficiently rigid to obstruct access to the pool. However, where an above-ground 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:

the ladder or steps shall be capable of being secured, locked or removed to prevent access, or the ladder or steps shall be surrounded by a barrier

when the ladder or steps are secured, locked or removed, any opening created shall not allow the passage of a 4-inch-diameter sphere.

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

Specific Barrier requirements can be found in the DOS document titled "Current Requirements for Swimming Pools contained in the Uniform Fire Prevention and Building Code (The "Uniform Code")"

Barrier requirements for One-and Two-Family Dwelling Swimming Pools can be found in Appendix G, Residential Code of New York State

Barrier requirements for Residential Swimming Pools can be found in Chapter 31, Section 3109, Building Code of New York State

Barriers requirements for Public Swimming Pools can be found in Chapter 31, Section 3109, Building Code of New York State

New York State Department of State Swimming Pool Rules and Regulations found in the Uniform Fire Prevention and Building Code (The "Uniform Code")

### **Additional Pool Requirements**

Additional pool requirements such as anti-entrapment devices (suction fittings), safety glazing, backflow prevention, pool heaters and other requirements may be found in the Uniform Fire Prevention and Building Code and the Energy Conservation Construction Code of New York State or by contacting your local municipality or the Department of State Codes Division at (518)-

Please contact your local municipality for additional Code and Zoning Requirements. Local laws regarding fencing and other safety requirements for swimming pools may be more restrictive than requirements for swimming pools contained in the Uniform Code.

New York State Department of Health

Additional Pool requirements can be found at the NYS Department of Health Website at http://www.health.state.ny.us/nysdoh/phforum/nycrr10.htm (click on Table of Contents then NEXT till SUBPART 6-1 SWIMMING POOLS.) Subpart 6-1 does not apply to swimming pools, or other bathing facility, owned and/or maintained by an individual for the use of family and friends.

### **Helpful Pool Safety Links**







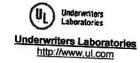


The American Red Cross www.redcross.org











# LUWN OF DEERFIEL

# OFFICE OF THE BUILDING INSPECTOR

## DEERFIELD MUNICIPAL BUILDING

6329 Walker Road Ullea, New York 13502

PHONE 724-0605

New York Board of Fire Underwriters 202 Arterial Road Syracuse, New York 13206 (315) 463-8552 Attn: Floyd Ferris

Middle Department Inspection Agency West Chester, PA 19380-0904 (610) 696-3900 Local Office: 143 Troy-Schenectady Road Watervliet, New York 12189 (518) 273-0861 Attn: David Chartrand, Manager Frank Mazzara

Commonwealth Electrical Inspection Service, Inc. Manheim, Pennylsvania 17545 Attn: Lucille (717) 664-2347 Local Office: One Main Street Whitesboro, New York 13492 Lyle F. Stevenson, Sr. 335-7780 Walter Williams

New York Atlantic-Inland, Inc. Fire Underwriters Cortland, New York 13045 (607) 753-7118 Ernie H. Savage 10 Marshall Avenue Ilion, New York 13357 (315) 895-7560 (315) 722-4594 - Pager

Independent Consolidated Inspection Services, Inc. PO Box 4178 Utica, New York 13504-4178 (315) 735-5233 Thomas Morosco

### PERMANENTLY INSTALLED SWIMMING POOLS **ELECTRICAL WIRING REQUIREMENTS**

2008 National Electrical Code / 2010 Residential Code of New York State

PERMANENTLY INSTALLED SWIMMING POOLS ARE THOSE THAT ARE CONSTRUCTED IN THE GROUND OR PARTIALLY IN THE GROUND, AND ALL OTHERS CAPABLE OF HOLDING WATER WITH A DEPTH GREATER THAN 24 INCHES (1067 MM)

### 1) Pool Pump Receptacle (Outlet) and Wiring Method

- a. If a pump motor receptacle is located between 6' 10' from the inside pool wall, the receptacle must be a single twist-lock outlet, grounded, and
- b. Receptacle must have a weatherproof cover that can be closed when the cord is plugged in. (In-use type cover)
- c. An Automatic Timer (Time Switch) must be installed on swimming pool pumps.
- d. The circuit line for the pump motor must be a continuous line going directly to the panel box, and is to be isolated from all other receptacles.
- e. Wire for the pump motor shall not be less than #12 AWG insulated copper grounded wire, and must be in conduit. (except when entering a building the wire can change to NM) (Cannot use NM wire in conduit) f. Conduit
- i. PVC All PVC conduit\* must be buried at least 18" deep (12" if GFCI protected)
  - ii. Metal All Rigid Metal Conduit\* must be at least 6" deep
  - Wires used in conduit must be single strand wires (ex: THWN, etc. NO NM or UF CABLE in Conduit)

#### 2) Convenience Receptacle (Outlet) and Wiring Method

- a. At least one (1) 15- or 20-ampere convenience receptacle must be located not closer than 6' but not further than 20' from the outside pool wall (Can be existing and/or wired with any approved wiring method)
- b. Convenience receptacle must be Ground Fault Circuit Interrupter (GFCI) protected.
- c. Must have a weatherproof cover where exposed to the weather (In-use type cover required on used, unattended, receptacles in wet locations)
- d. Must be separate from the pool pump receptacle wiring.
- e. Wiring
- i. UF cable if buried must be at least 24" deep
- ii. PVC All PVC conduit\* must be buried at least 18" deep (12" if GFCI protected)
- iii. Metal All Rigid Metal Conduit\* must be at least 6" deep
  - \* Wires used in conduit must be single strand wires (ex: THWN, etc NO NM or UF CABLE in Conduit)

#### 3) Bonding The Pool

- a. All metal parts must be bonded together using a #8 (or larger) solid copper wire.
- b. Must use non-corrosive clamps.
- c. Conductive pool shells must be bonded in a minimum of four (4) equal points uniformly spaced around the pool
- d. Nonconductive pool shells must have a #8 (or larger) solid, bare copper wire 18"-24" from the inside pool wall under the perimeter surface 4"-6" below
- e. A minimum of nine (9) square inches of metal must be in the water to bond the water

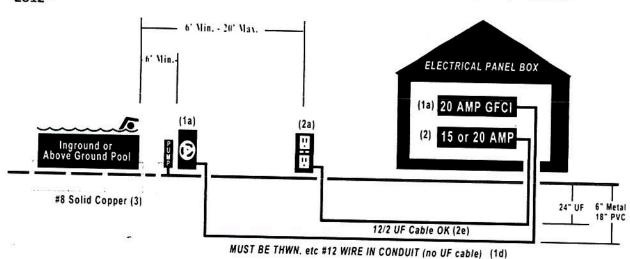
#### 4) Other

- a. Building Permits are required. Secure a Building Permit prior to beginning work from your municipality
- b. Pool Alarms are required (Check with your local Building Department for additional information)
- c. If a Pool Heater is present, an Automatic Timer (Time Switch) must be installed on the pool heater and must be equipped with a readily accessible on-off switch to shut off the heater without adjusting the thermostat setting.

### PLEASE CONTACT YOUR LOCAL INSPECTOR IF YOU HAVE ANY QUESTIONS

Randy Foley — Codes Enforcement Inspector (315) 724-0413 ex.22 \* www.buildinginspector@townofdeerfield.org

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## BARRIER REQUIREMENTS

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AG105.2 Outdoor swimming pool. An outdoor swimming pool, including an in-ground, aboveground or on-ground pool, ply with the following the provided with a barrier which is the following ply with the following pool,	
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## 1220.5. Swimming pool alarms. [amended text 12/14/2006]

- (a) Purpose. Paragraph (b) of subdivision (14) of section 378 of the Executive Law, as added by Chapter 450 of the Laws of 2006, requires that the New York State Uniform Fire Prevention and Building Code (the Uniform Code) provide that any "residential or commercial swimming pool constructed or substantially modified after the effective date of this paragraph (December 14, 2006) shall be equipped with an acceptable pool alarm capable of detecting a child entering the water and of giving an audible alarm." The Introducer's Memorandum in Support of Chapter 450 states, in pertinent part, that "drowning is the second leading cause of unintentional injury-related deaths in children between the ages of one and fourteen nation wide, and the third leading cause of injury-related deaths of children in New York. . . . (T)echnological advances have produced several different types of pool alarms designed to sound a warning if a child falls into the water. When used in conjunction with access barriers, these alarms provide greater protection against accidental pool drownings." This section and section 1221.3 of Part 1221 of this Title are intended to implement the provisions of Executive Law section 378(14)(b).
- (b) Definitions. The terms "approved," "commercial swimming pool," "residential swimming pool," "swimming pool," "substantial damage," and "substantial modification" shall, for the purposes of this section, have the meanings ascribed in subdivision (b) of section 1221.3 of Part 1221 of this Title.
- (c) Pool alarms. Each residential swimming pool installed, constructed or substantially modified after December 14, 2006 and each commercial swimming pool installed, constructed or substantially modified after December 14, 2006 shall be equipped with an approved pool alarm which:
- (1) is capable of detecting a child entering the water and giving an audible alarm when it detects a child entering the water;
- (2) is audible poolside and at another location on the premises where the swimming pool is located;
  - (3) is installed, used and maintained in accordance with the manufacturer's instructions;
- (4) is classified by Underwriter's Laboratory, Inc. (or other approved independent testing laboratory) to reference standard ASTM F2208, entitled "Standard Specification for Pool Alarms," as adopted in 2002 and editorially corrected in June 2005, published by ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428; and
- (5) is not an alarm device which is located on person(s) or which is dependent on device(s) located on person(s) for its proper operation.
- (d) Multiple pool alarms. A pool alarm installed pursuant to subdivision (c) of this section must be capable of detecting entry into the water at any point on the surface of the swimming pool. If necessary to provide detection capability at every point on the surface of the swimming pool, more than one pool alarm shall be installed.

### APPENDIX G

# SWIMMING POOLS, SPAS AND HOT TUBS

#### SECTION AG101 GENERAL

AG101.1 General. The provisions of this appendix shall control the design and construction of swimming pools, spas and hot tubs installed in or on the lot of a one- and two-family dwelling.

### SECTION AG102 DEFINITIONS

AG102.1 General. For the purposes of these requirements, the terms used shall be defined as follows and as set forth in Chapter 2.

ABOVE-GROUND/ON-GROUND POOL. See "Swimming pool."

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

HOT TUB. See "Swimming pool."

IN-GROUND POOL. See "Swimming pool."

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

SPA, NONPORTABLE. See "Swimming pool."

SPA, PORTABLE. A nonpermanent structure intended for recreational bathing, in which all controls, water-heating and water-circulating equipment are an integral part of the product.

SWIMMING POOL. Any structure intended for swimming or recreational bathing capable of containing water over 24 inches (610 mm) deep. This includes in-ground, aboveground and on-ground 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.

#### SECTION AG103 SWIMMING POOLS

AG103.1 In-ground pools. In-ground pools shall be designed and constructed in conformance with ANSI/NSPI-5 as listed in Section AG108.

AG103.2 Above-ground and on-ground pools. Above-ground and on-ground pools shall be designed and constructed in conformance with ANSI/NSPI-4 as listed in Section

### SECTION AG104 SPAS AND HOT TUBS

AG104.1 Permanently installed spas and hot tubs. Permanently installed spas and hot tubs shall be designed and constructed in conformance with ANSI/NSPI-3 as listed in Section AG108.

AG104.2 Portable spas and hot tubs. Portable spas and hot tubs shall be designed and constructed in conformance with ANSI/NSPI-6 as listed in Section AG108.

### SECTION AG105 BARRIER REQUIREMENTS

AG105.1 Application. The provisions of this chapter shall control the design of barriers for residential swimming pools, spas and hot tubs. These design controls are intended to provide protection against potential drownings and near-drownings by restricting access to swimming pools, spas and hot tubs.

AG105.2 Outdoor swimming pool. 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 (1219 mm) 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 shall be 2 inches (51 mm) 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 shall be 4 inches (102 mm).
- Openings in the barrier shall not allow passage of a 4-inch-diameter (102 mm) sphere.
- Solid barriers which do not have openings, such as a 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 (1143 mm), the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall not exceed 1.75 inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) 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 (1143 mm) or more, spacing between vertical members shall not exceed 4 inches (102 mm). Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) in width.
- Maximum mesh size for chain link fences shall be a 2.25-inch (57 mm) 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 (44 mm).
- 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 (44 mm).
- 8. Access gates shall comply with the requirements of Section AG105.2, Items 1 through 7, and shall be securely locked with a key, combination or other child-proof lock sufficient to prevent access to the swimming pool through such gate when the swimming pool is not in use or supervised. 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 (1372 mm) from the bottom of the gate, the release mechanism and openings shall comply with the following:
  - 8.1. The release mechanism shall be located on the pool side of the gate at least 3 inches (76 mm) below the top of the gate, and
  - 8.2. The gate and barrier shall have no opening greater than 0.5 inch (12.7 mm) within 18 inches (457 mm) 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:
  - The pool shall be equipped with a powered safety cover in compliance with ASTM F1346; or
  - 9.2. All doors with direct access to the pool through that wall shall be equipped with an 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 switch(es) shall be located at least 54 inches (1372 mm) above the threshold of the door; or
  - 9.3. Other means of protection, such as self-closing doors with self-latching devices, shall be acceptable so long as the degree of protection afforded

- is not less than the protection afforded by Item 9.1 or 9.2 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:
  - 10.1. The ladder or steps shall be capable of being secured, locked or removed to prevent access, or
  - 10.2. The ladder or steps shall be surrounded by a barrier which meets the requirements of Section AG105.2, Items 1 through 9. When the ladder or steps are secured, locked or removed, any opening created shall not allow the passage of a 4-inch-diameter (102 mm) sphere.

AG105.3 Indoor swimming pool. All walls surrounding an indoor swimming pool shall comply with Section AG105.2, Item 9.

AG105.4 Prohibited locations. Barriers shall be located so as to prohibit permanent structures, equipment or similar objects from being used to climb the barriers.

AG105.5 Barrier exceptions. Spas or hot tubs with a safety cover which complies with ASTM F 1346, as listed in Section AG107, shall be exempt from the provisions of this appendix.

# SECTION AG106 ENTRAPMENT PROTECTION FOR SWIMMING POOL AND SPA SUCTION OUTLETS

AG106.1 General. Suction outlets shall be designed to produce circulation throughout the pool or spa. Single outlet systems, such as automatic vacuum cleaner systems, or other such multiple suction outlets whether isolated by valves or otherwise shall be protected against user entrapment.

AG106.2 Suction fittings. All Pool and Spa suction outlets shall be provided with a cover that conforms with ANSI/ASME A112.19.8M, or a 12" × 12" drain grate or larger, or an approved channel drain system.

Exception: Surface skimmers

AG106.3 Atmospheric vacuum relief system required. All pool and spa single or multiple outlet circulation systems shall be equipped with atmospheric vacuum relief should grate covers located therein become missing or broken. Such vacuum relief systems shall include at least one approved or engineered method of the type specified herein, as follows:

- Safety vacuum release system conforming to ASME A112.19.17, or
- 2. An approved gravity drainage system

AG106.4 Dual drain separation. Single or multiple pump circulation systems shall be provided with a minimum of two (2) suction outlets of the approved type. A minimum horizontal or vertical distance of three (3) feet shall separate such outlets. These suction outlets shall be piped so that water is drawn through them simultaneously through a vacuum relief-protected line to the pump or pumps.

AG106.5 Pool cleaner fittings. Where provided, vacuum or pressure cleaner fitting(s) shall be located in an accessible posi-

tion(s) at least (6) inches and not greater than twelve (12) inches below the minimum operational water level or as an at-

### **SECTION AG107 ABBREVIATIONS**

### AG107.1 General.

ANSI—American National Standards Institute 11 West 42nd Street, New York, NY 10036

ASTM—ASTM International 100 Barr Harbor Drive, West Conshohocken, PA 19428

NSPI—National Spa and Pool Institute 2111 Eisenhower Avenue, Alexandria, VA 22314

### **SECTION AG108** STANDARDS

### AG108.1 General.

#### ANSI/NSPI

ANSI/NSPI
ANSI/NSPI-3-99 Standard for Permanently Installed
Residential Spas
ACIO4 +
ANSI/NSPL4 oo c
ANSI/NSPI-4-99 Standard for Above-ground/On-ground Residential Swimming Pools
ANSIMODI F 00 0
ANSI/NSPI-5-99 Standard for Residential In-ground
Swithining Pools
Swimming Pools
ANSI/NSPI-6-99 Stondard S
Portable Spas
AC1040
ANGT/A CD 477
ANSI/ASME A112.19.8M-1987 Suction
TOTAL
Whirlpool Bathing Appli
Whirlpool Bathing Appliances · · · · · · · · · AG106.2
ASTM
ASTM F 1346-91 (1996) Performance Specification for Safety Covers and Labeling Description
for Safety Course (1996) Performance Specification
for Safety Covers and Labeling Requirements for All Covers for Swimming Pools of
All Covers for Swimming Pools, Spas and
HOLIUDS AC1050
Hot Tubs · · · · · · · · · · · · · · · · · · ·
ASME

Release Systems (SVRS) for Residential and Commercial Swimming Pool, Spa, Hot Tub and

ASME A112.19.17-2002 Manufacturers Safety Vacuum