**Town of Newstead**
5 Clarence Ctr Rd.
Akron, NY 14001
Tel: (716) 542-4574
Fax: (716) 542-3702
E-mail:
dmiller@townofnewstead.com
Web Site:
www.erie.gov/newstead

# Pool Permit Application

**SBL#**

for office use only
**PERMIT NUMBER**

- ☐ General Liability
- ☐ Worker's Comp
- ☐ Disability

**OR**

- ☐ Homeowner Affidavit

**Total Cost of Labor & Materials**

**$**

**NAME OF OWNER:** _____

**MAILING ADDRESS:** _____

**LOCATION ADDRESS OF POOL:** _____

**PHONE NUMBER:** _____

**Is parcel in a Flood plain?** ☐ **Yes** ☐ **No or Wetland** ☐ **Yes** ☐ **No**
**(If parcel is in a floodplain, please complete Floodplain Development Permit)**

**POOL TYPE:**
- ☐ steel vinyl
- ☐ fiberglass
- ☐ poured concrete
- ☐ Gunite
- ☐ above ground

☐ **HOT TUB:**

Pool Width: _____
Pool Height: _____
(from ground to top of pool)

**SETBACK:**
distance from road: _____ft.
distance from rear: _____ft.
distance from side line: _____ft.
distance from side line: _____ft.

***POOLS CANNOT BE USED BEFORE ELECTRICAL HAS PASSED INSPECTION.***
***POOL ALARMS ARE REQUIRED FOR ALL POOLS IN ERIE COUNTY.***

**CONTRACTOR:** _____
NAME MAILING ADDRESS PHONE

**I certify that I have read and understand the General Construction Rules on reverse side, that the proposed work is authorized by owner of record and that I have been authorized by owner to make this application as his/her agent, and we agree to conform to all applicable laws of**

**Signature of Applicant X** _____ **Date** _____

**FOR OFFICE USE ONLY:**

| 3 Month Permit | $ 75 |
|---|---|

Cash____ Check #_____ Credit _____
(Check payable to "Town of Newstead")

**Building Inspector:**
☐ Approved ☐ Disapproved

**Permit Issued on:** _____

Signature: _____ Date: _____
David Miller

Permit Expires in 3 months _____

**Permit Renewal**

| 3 Month Extension | $100 |
|---|---|

Approved by Code Enforcement Officer
(Renewal Subject to NYS Code Changes)

Permit Renewal Expires in 3 months:

Signature: _____ Date: _____
David Miller

Expiration Date: _____

## Please call the Building Dept. at 542-4574

## 24 HOURS IN ADVANCE to schedule your inspections.

1. You are alerted that the issuance of this permit shall not be construed as a representation that the property is suitable for construction or that approval from the D.E.C., E.P.A. or the Army Corps. Of Engineers will be forthcoming for the property.
2. Contractors to furnish acceptable Certificate of Insurance for Worker's Compensation, Disability and General Liability coverage to the Town of Newstead.
3. Property owners performing construction themselves must sign an Affidavit of Exemption from Worker's Compensation Insurance.
4. To check the location of your septic systems and water wells, please contact the Erie County Health Department (858-7677).
5. Prior to any construction or excavation, Dig Safe of New York must be contacted at 811 or at 800-962-7962.
6. **Electrical Inspection is required by one of the following Town approved Electrical Inspectors:**
   Commonwealth Electric (716-316-7091), Empire Electrical Inspections (585-798-1849)
   NY Electrical Inspection Agcy (585-436-4460), Excelsior Electrical Inspection Agcy (716-676-6385)

SWIMMING POOL CHECKLIST

**(All information to be provided by permit applicant prior to permit issuance should be documented & attached)**

[ ] Proposed setbacks and pool location provided on survey and permit application

[ ] Pool enclosure 48 inches minimum height from grade with self-closing, self-latching gates. No openings or spaces to exceed 4 inches

[ ] Latch height 40 inches minimum from grade

[ ] Locks for gates provided

[ ] Building doors are self-closing and self-latching and/or alarmed (if building has direct access to pool deck)

[ ] Pool not located in any easements or public lands

[ ] Pool alarm installed; audible outside and inside.

[ ] Drainage does not interfere with public water supply systems, existing drainage and sewage facilities, or other property owners

[ ] Does not fill or alter any drainage swales

[ ] Electrical Inspection on file

[ ] Entrance ladder is lockable and/or removable

[ ] Pool surface clearance from overhead power lines minimum of 10 feet.

[ ] Hot tubs properly supported and out-fitted with a lockable hard cover

## Please call the Building Dept. at 542-4574

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TOWN OF NEWSTEAD

# SWIMMING POOLS, SPAS & HOT TUBS

The following blocked excerpts were copied directly from the NYS Building Code (Uniform Code) and National Electric Code. This is only an abridged listing of the most frequently used provisions of these codes. This information is intended to provide a pre-briefing on swimming pool code requirements. **Any pool designed to hold more than 24 inches of water requires a permit and must meet all pool requirements.**

The Building Inspector will provide a briefing specific to each job.

The codes applicable at the time of installation apply.

**All outdoor receptacles MUST BE G.F.C.I. protected.**

680-21. Cord and Plug-Connected Equipment. Fixed or stationary equipment rated 20 amperes or less, other than an underwater lighting fixture for a permanently installed pool, shall be permitted to be connected with a flexible cord to facilitate the removal or disconnection for maintenance or repair. For other than storable pools, the flexible cord shall not exceed three feet (914 mm) in length and shall havae a copper equipment grounding conductor not smaller than No. 12 with a grounding-type attachment plug. ---National Electric Code----------

**NOTE: Most new pool kits have a furnished cord that does not meet code. These are usually labeled with a red tag (see below):**

WARNING: This cord is supplied for convenience for initial use only. Use only with properly grounded and G.F.C.I. protected outlet.

To comply with most applicable codes, a special cord with a locking type plug or permanent installation is required.

All electrical wiring must be performed by qualified personnel and must comply with applicable electrical codes.

Contractors must furnish acceptable Certificate of Insurance for Worker's Compensation, Disability and General Liability coverage to the Town of Newstead. Property owners performing construction themselves must sign an Affidavit of Exemption from Worker's Compensation Insurance.

**You must contact one of the following Town approved electrical inspectors to inspect your electric prior to final inspection by the Town Building Inspector:**

Commonwealth Electrical Inspection Service, Inc.
(716- 316-7091)
NY Electrical Inspection Agency
(585-436-4460)

Empire Inspections
(585-798-1849)
Excelsior Electrical Inspection Agency
(716-676-6385)

**Title 19 (NYCRR)**
**Chapter XXXIII – State Fire Prevention & Building Code Council**
**Subchapter A – Uniform Fire Prevention & Building Code**
**Part 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 nationwide, and the third leading cause of injury-related deaths of children in New York…Technological 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 enter 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 mainteained 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.

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**Subchapter A – Uniform Fire Prevention & Building Code**
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## SECTION R326.3
## SWIMMING POOLS

**R326.3.1 In-ground pools.** In-ground pools shall be designed and constructed in conformance with ANSI/NSPI-5.

**R326.3.2 Above-ground and on-ground pools.** Above- ground and on-ground pools shall be designed and constructed in conformance with ANSI/NSPI-4.

## SECTION R326.4
## SPAS AND HOT TUBS

**R326.4.1 Permanently installed spas and hot tubs.** Permanently installed spas and hot tubs shall be designed and constructed in conformance with ANSI/NSPI-3 (Standard for Permanently Installed Residential Spas, 1999).

**R326.4.2 Portable spas and hot tubs.** Portable spas and hot tubs shall be designed and constructed in conformance with ANSI/NSPI-6.

## SECTION R326.5
## BARRIER REQUIREMENTS

**R326.5.1 Application.** The provisions of this section shall control the design of barriers for residential swimming pools, spas and hot tubs. These design controls are intended to provide protection against potential drowning and near- drowning by restricting access to swimming pools, spas and hot tubs.

**R326.5.2 Temporary barriers.** An outdoor swimming pool, including an in-ground, above-ground or on-ground pool, hot tub or spa shall be surrounded by a temporary barrier during installation or construction and shall remain in place until a permanent barrier in compliance with Section R326.5.3 is provided.

**Exceptions:**

1. Above-ground or on-ground pools where the pool structure is the barrier in compliance with Section R326.5.3.
2. Spas or hot tubs with a safety cover which complies with ASTM F 1346, provided that such safety cover is in place during the period of installation or construction of such hot tub or spa. The temporary removal of a safety cover as required to facilitate the installation or construction of a hot tub or spa during periods when at least one person engaged in the installation or construction is present is permitted.

**R326.5.2.1 Height.** The top of the temporary 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.

**R326.5.2.2 Replacement by a permanent barrier.** A temporary barrier shall be replaced by a complying permanent barrier within either of the following periods:

1. 90 days of the date of issuance of the building permit for the installation or construction of the swimming pool; or
2. 90 days of the date of commencement of the installation or construction of the swimming pool.

**R326.5.2.2.1 Replacement extension.** Subject to the approval of the code enforcement official, the time period for completion of the permanent barrier may be extended for good cause, including, but not limited to, adverse weather conditions delaying construction.

**R326.5.3 Permanent barriers.** An outdoor swimming pool, including an in-ground, above-ground or on-ground pool, hot tub or spa shall be surrounded by 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 above-ground 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).
2. Openings in the barrier shall not allow passage of a 4-inch-diameter (102 mm) sphere.
3. 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 $1^3/_4$ inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed $1^3/_4$ 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 $1^3/_4$ inches (44 mm) in width.
6. Maximum mesh size for chain link fences shall be a $2^1/_4$-inch (57 mm) square unless the fence has slats fastened at the top or the bottom which reduce the openings to not more than $1^3/_4$ 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 $1^3/_4$ inches (44 mm).

8. Gates shall comply with the requirements of Section R326.5.3, Items 1 through 7, and with the following requirements:
   8.1. All gates shall be self-closing. In addition, if the gate is a pedestrian access gate, the gate shall open outward, away from the pool.
   8.2. All gates shall be self-latching, with the latch handle located within the enclosure (i.e., on the pool side of the enclosure) and at least 40 inches (1016 mm) above grade. In addition, if the latch handle is located less than 54 inches (1372 mm) from the bottom of the gate, the latch handle shall be located at least 3 inches (76 mm) below the top of the gate, and neither the gate nor the barrier shall have any opening greater than 0.5 inch (12.7 mm) within 18 inches (457 mm) of the latch handle.
   8.3. All gates 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.
9. Where a wall of a dwelling serves as part of the barrier, one of the following conditions shall be met:
   9.1. The pool shall be equipped with a powered safety cover in compliance with ASTM F 1346; or
   9.2. 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/or its screen, if present, are opened. The alarm shall be listed in accordance with UL 2017. The audible alarm shall activate within 7 seconds and sound continuously for a minimum of 30 seconds after the door and/or its screen, if present, are 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 touch pad or switch, to temporarily deactivate the alarm for a single opening. 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 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:
   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 R326.5.3, 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.

**R326.5.4 Indoor swimming pool.** Walls surrounding an indoor swimming pool shall comply with Section R326.5.3, Item 9.

**R326.5.5 Prohibited locations.** Barriers shall be located to prohibit permanent structures, equipment or similar objects from being used to climb them.

**R326.5.6 Barrier exceptions.** Spas or hot tubs with a safety cover which complies with ASTM F 1346 shall be exempt from the provisions of this appendix.

## SECTION R326.6
## ENTRAPMENT PROTECTION FOR SWIMMING POOL AND SPA SUCTION OUTLETS

**R326.6.1 General.** Suction outlets shall be designed to produce circulation throughout the pool or spa. Single-outlet systems, such as automatic vacuum cleaner systems, or multiple suction outlets, whether isolated by valves or otherwise, shall be protected against user entrapment.

**R326.6.1.1 Compliance alternative.** Suction outlets may be designed and installed in accordance with ANSI/APSP-7.

**R326.6.2 Suction fittings.** Pool and spa suction outlets shall have a cover that conforms to ANSI/ASME A112.19.8M, or an 18 inch by 23 inch (457 mm by 584 mm) drain grate or larger, or an approved channel drain system.

**Exception:** Surface skimmers.

**R326.6.3 Atmospheric vacuum relief system required.** 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. This vacuum relief system shall include at least one approved or engineered method of the type specified herein, as follows:

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

**R326.6.4 Dual drain separation.** Single or multiple pump circulation systems have a minimum of two suction outlets of the approved type. A minimum horizontal or vertical distance of 3 feet (914 mm) shall separate the 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.

**R326.6.5 Pool cleaner fittings.** Where provided, vacuum or pressure cleaner fitting(s) shall be located in an accessible position(s) at least 6 inches (152 mm) and not more than 12 inches (305 mm) below the minimum operational water level or as an attachment to the skimmer(s).

## SECTION R326.7
## SWIMMING POOL AND SPA ALARMS

**R326.7.1 Applicability.** A swimming pool or spa installed, constructed or substantially modified after December 14, 2006, shall be equipped with an approved pool alarm.

**Exceptions:**

1. A hot tub or spa equipped with a safety cover which complies with ASTM F1346.
2. A swimming pool (other than a hot tub or spa) equipped with an automatic power safety cover which complies with ASTM F1346.

Pool alarms shall comply with ASTM F2208 (Standard Specification for Pool Alarms), and shall be installed, used and maintained in accordance with the manufacturer's instructions and this section.

**R326.7.2 Multiple alarms.** 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 shall be provided.

**R326.7.3 Alarm activation.** Pool alarms shall activate upon detecting entry into the water and shall sound poolside and inside the dwelling.

**R326.7.4 Prohibited alarms.** The use of personal immersion alarms shall not be construed as compliance with this section.

## SECTION R326.8
## STANDARDS

**R326.8.1 General.** The following table lists the standards that are referenced in Section R326 that are neither listed in Chapter 44 of the 2015 IRC, nor Chapter 10 of this Supplement. The standards are listed by the promulgating agency of the standard, the standard identification, the effective date and title, and the section(s) of Section R326 that reference the standard. Referenced standards that have been incorporated by reference into 19 NYCRR Parts 1220 through 1228 are located in Chapter 10 of this Supplement. Application of referenced standards shall be as specified in Section 102.5.

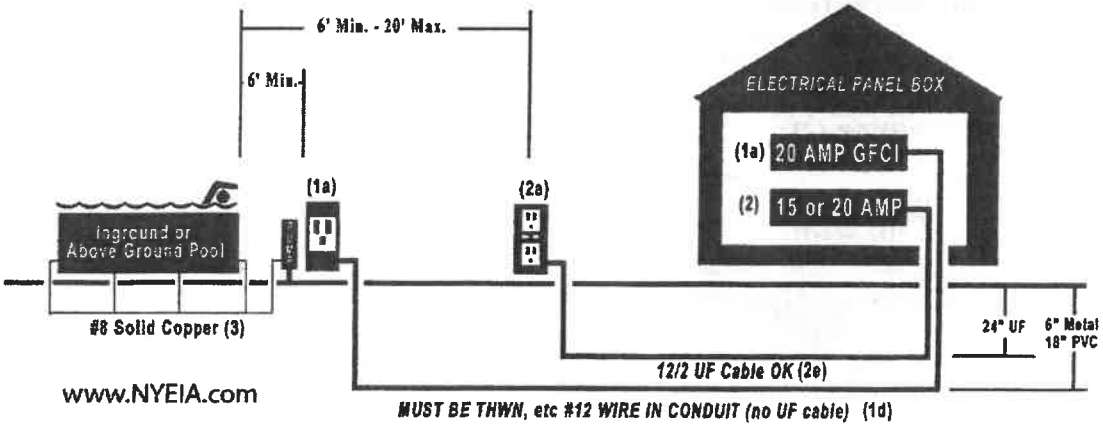
| Standard number | Title | Where referenced |
|---|---|---|
| **ASTM** | **ASTM International**<br>**100 Barr Harbor Dr, West Conshohocken, PA 19428** | |
| ASTM F2208-2008 | Standard Specification for Pool Alarms | R326.7.1 |
| **NSPI** | **National Spa and Pool Institute**<br>**2111 Eisenhower Avenue, Alexandria, VA 22314** | |
| ANSI/NSPI-3-99 | Standard for Permanently Installed Residential Spas | R326.4.1 |
| ANSI/NSPI-4-99 | Standard for Above-ground/On-ground Residential Swimming Pools | R326.3.2 |
| ANSI/NSPI-5-03 | Standard for Residential In-ground Swimming Pools | R326.3.1 |
| ANSI/NSPI-6-99 | Standard for Residential Portable Spas | R326.4.2 |
| **UL** | **Underwriters Laboratories, Inc.** | |

# PERMANENTLY INSTALLED SWIMMING POOLS
## ELECTRICAL WIRING REQUIREMENTS
## 2014 National Electrical Code

**www.NYEIA.com**

**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 42 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 outlet, grounded, and Ground Fault Circuit Interrupter (GFCI) protected.
   b. Receptacle must have an extra-duty, in-use, weatherproof cover that can be closed when the cord is plugged in.
   c. 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.
   d. Wire for the pump motor shall not be less than #12 AWG insulated copper grounded wire, and must be in conduit. (Exception: When entering a building the wire can change to NM) (Cannot use NM wire in conduit).
   e. 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, Tamper Resistant (TR), and Weather Resistant (WR) type receptacle.
   c. Must have an extra-duty, in-use, weatherproof cover that can be closed when in use (for all 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 conduits* must be buried at least 18" deep (12" if GFCI protected).
      iii. Metal – All Rigid Metal Conduits* 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 the final grade.
   e. A minimum of nine (9) square inches of corrosion resistant metal must be in the water to bond the water.
4) **Other**
   a. Building Permits are required. Secure a Building Permit from your municipality prior to beginning work.
   b. Pool Alarms are required. (Check with your local Building Department for additional information).
   c. Pool Pump Timers: (Check with your local Building Department for additional information).



# HOT TUBS & SPAS - ELECTRICAL WIRING REQUIREMENTS
## 2014 National Electrical Code

**www.NYEIA.com**

SPA OR HOT TUB. A HYDROMASSAGE POOL, OR TUB FOR RECREATIONAL OR THERAPEUTIC USE, NOT LOCATED IN HEALTH CARE FACILITIES, DESIGNED FOR IMMERSION OF USERS, AND USUALLY HAVING A FILTER, HEATER, AND MOTOR-DRIVEN BLOWER. THEY ARE INSTALLED INDOORS OR OUTDOORS, ON THE GROUND OR SUPPORTING STRUCTURE, OR IN THE GROUND OR SUPPORTING STRUCTURE. GENERALLY, A SPA OR HOT TUB IS NOT DESIGNED OR INTENDED TO HAVE ITS CONTENTS DRAINED OR DISCHARGED AFTER EACH USE.

### 1) Hot Tub / Spa Wiring Method and Receptacles (Outlets)

a. Maintenance Disconnect - A disconnect is required for all ungrounded electrical wires (except for lighting). It must be at least 5' but not more that 50' from the water's edge, readily accessible, and within sight of the Hot Tub / Spa.

b. The outlet(s) that supply a Hot Tub / Spa must be Ground-Fault Circuit Interrupter (GFCI) protected.

c. Indoors Hot Tubs & Spas

- i. At least one (1) convenience receptacle must be located between 6' and 10' from the inside wall of the Hot Tub / Spa and be GFCI Protected (Existing receptacle OK and wired with any approved wiring method).

d. Outdoors Hot Tubs & Spas

- i. At least one (1) convenience receptacle must be located between 6' and 20' from the inside wall of the Hot Tub / Spa and be GFCI Protected (Existing receptacle OK and wired with any approved wiring method).
- ii. Liquidtight flexible metal or nonmetallic conduit is permitted in lengths of not more than 6'.
- iii. A listed packaged hot tub / spa installed outdoors that is GFCI protected shall be permitted to be cord and plug-connected provided that such cord does not exceed 15 feet in length.
- iv. Outdoor receptacles must have a weatherproof cover where exposed to the weather (In-use type cover required on used, unattended, receptacles in wet locations).

### 2) Bonding The Hot Tub / Spa

a. All metal parts & surfaces within 5' of the Hot Tub / Spa must be bonded together using a #8 (or larger) solid copper wire and connections must be non-corrosive.

b. Outdoor Hot Tubs / Spas with nonconductive shells must have a #8 (or larger) solid, bare copper wire 18"-24" from the inside hot tub wall under the perimeter surface 4"-6" below the final grade and connected to a metal part of the pump motor.*

* Exception: All must apply; 1) Hot tub must be listed for aboveground use, 2) Listed for outdoor use, 3) Installed on or aboveground, 4) The top rim of the hot tub must be at least 28" above the perimeter surfaces within 30" horizontally.

### 3) Lighting (other than underwater applications) (if any)

a. All non-GFCI protected lights and ceiling fans within 5' of the inside wall of the Hot Tub / Spa must be at least 12' above the maximum water level of the Hot Tub / Spa.

b. All GFCI protected lights and ceiling fans within 5' of the inside wall of the Hot Tub / Spa must be at least 7 ½' above the maximum water level of the Hot Tub / Spa.

c. Exception - Lights that are within 5' of the inside wall of the Hot Tub / Spa and less than 7 ½' above the water level are only acceptable if they meet the following:

- i. Recessed Lights - GFCI protected with a glass or plastic lens, nonmetallic or electrically isolated metal trim, and suitable for damp locations.
- ii. Surface-Mounted Lights - GFCI protected with a glass or plastic globe, a nonmetallic body, or a metallic body isolated from contact, and suitable for damp locations.

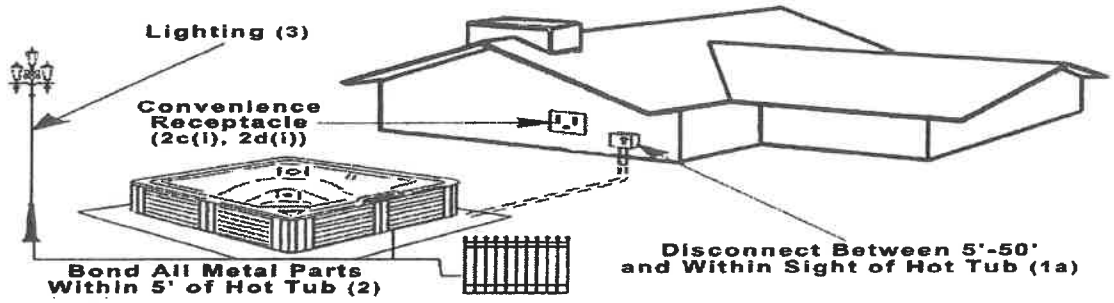
### 4) Other

a. Building Permits are required. Always secure a Building Permit from your municipality prior to beginning work.

b. Indoor Hot Tubs / Spas wall switches must be a minimum 5' from the inside wall of the Hot Tub / Spa.

c. Outdoor Hot Tubs check for overhead wires within 10' of the Hot Tub. (Must be 22 ½' above water level & not allowed in many towns)

d. All Hot Tubs / Spas, other than in a single family residence, must have an emergency shutoff between 5'-50' & within sight.



# HOT TUBS & SPAS - ELECTRICAL WIRING REQUIREMENTS
## 2014 National Electrical Code

www.NYEIA.com

SPA OR HOT TUB. A HYDROMASSAGE POOL, OR TUB FOR RECREATIONAL OR THERAPEUTIC USE, NOT LOCATED IN HEALTH CARE FACILITIES, DESIGNED FOR IMMERSION OF USERS, AND USUALLY HAVING A FILTER, HEATER, AND MOTOR-DRIVEN BLOWER. THEY ARE INSTALLED INDOORS OR OUTDOORS, ON THE GROUND OR SUPPORTING STRUCTURE, OR IN THE GROUND OR SUPPORTING STRUCTURE. GENERALLY, A SPA OR HOT TUB IS NOT DESIGNED OR INTENDED TO HAVE ITS CONTENTS DRAINED OR DISCHARGED AFTER EACH USE.

### 1) Hot Tub / Spa Wiring Method and Receptacles (Outlets)

a. Maintenance Disconnect - A disconnect is required for all ungrounded electrical wires (except for lighting). It must be at least 5' but not more that 50' from the water's edge, readily accessible, and within sight of the Hot Tub / Spa.

b. The outlet(s) that supply a Hot Tub / Spa must be Ground-Fault Circuit Interrupter (GFCI) protected.

c. Indoors Hot Tubs & Spas

i. At least one (1) convenience receptacle must be located between 6' and 10' from the inside wall of the Hot Tub / Spa and be GFCI Protected (Existing receptacle OK and wired with any approved wiring method).

d. Outdoors Hot Tubs & Spas

i. At least one (1) convenience receptacle must be located between 6' and 20' from the inside wall of the Hot Tub / Spa and be GFCI Protected (Existing receptacle OK and wired with any approved wiring method).

ii. Liquidtight flexible metal or nonmetallic conduit is permitted in lengths of not more than 6'.

iii. A listed packaged hot tub / spa installed outdoors that is GFCI protected shall be permitted to be cord and plug-connected provided that such cord does not exceed 15 feet in length.

iv. Outdoor receptacles must have a weatherproof cover where exposed to the weather (In-use type cover required on used, unattended, receptacles in wet locations).

### 2) Bonding The Hot Tub / Spa

a. All metal parts & surfaces within 5' of the Hot Tub / Spa must be bonded together using a #8 (or larger) solid copper wire and connections must be non-corrosive.

b. Outdoor Hot Tubs / Spas with nonconductive shells must have a #8 (or larger) solid, bare copper wire 18"-24" from the inside hot tub wall under the perimeter surface 4"-6" below the final grade and connected to a metal part of the pump motor.*

* Exception: All must apply; 1) Hot tub must be listed for aboveground use, 2) Listed for outdoor use, 3) Installed on or aboveground, 4) The top rim of the hot tub must be at least 28" above the perimeter surfaces within 30" horizontally.

### 3) Lighting (other than underwater applications) (if any)

a. All non-GFCI protected lights and ceiling fans within 5' of the inside wall of the Hot Tub / Spa must be at least 12' above the maximum water level of the Hot Tub / Spa.

b. All GFCI protected lights and ceiling fans within 5' of the inside wall of the Hot Tub / Spa must be at least 7 ½' above the maximum water level of the Hot Tub / Spa.

c. Exception - Lights that are within 5' of the inside wall of the Hot Tub / Spa and less than 7 ½' above the water level are only acceptable if they meet the following:

i. Recessed Lights - GFCI protected with a glass or plastic lens, nonmetallic or electrically isolated metal trim, and suitable for damp locations.

ii. Surface-Mounted Lights - GFCI protected with a glass or plastic globe, a nonmetallic body, or a metallic body isolated from contact, and suitable for damp locations.

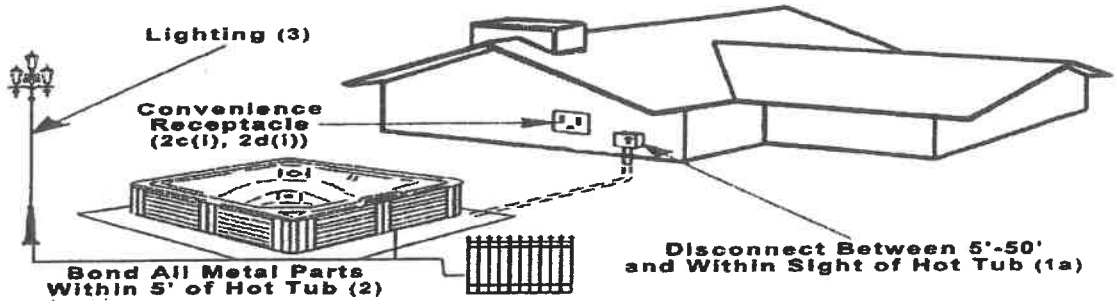
### 4) Other

a. Building Permits are required. Always secure a Building Permit from your municipality prior to beginning work.

b. Indoor Hot Tubs / Spas wall switches must be a minimum 5' from the inside wall of the Hot Tub / Spa.

c. Outdoor Hot Tubs check for overhead wires within 10' of the Hot Tub. (Must be 22 ½' above water level & not allowed in many towns)

d. All Hot Tubs / Spas, other than in a single family residence, must have an emergency shutoff between 5'-50' & within sight.



# STORABLE SWIMMING POOLS, SPAS, & HOT TUBS

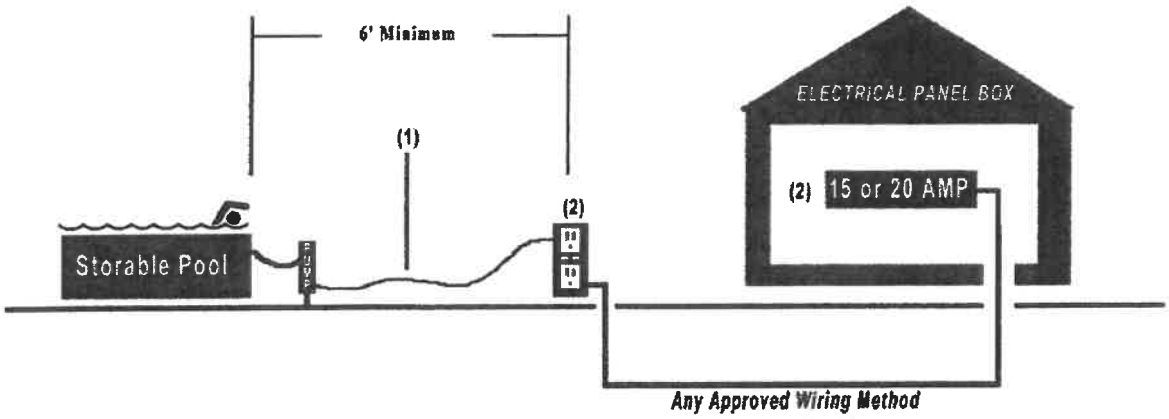
## ELECTRICAL WIRING REQUIREMENTS
## 2014 National Electrical Code

**www.NYEIA.com**

**STORABLE POOLS** ARE THOSE THAT ARE CONSTRUCTED ON OR ABOVE THE GROUND, AND ARE CAPABLE OF HOLDING WATER TO A MAXIMUM DEPTH OF 42 IN., OR A POOL, SPA, OR HOT TUB WITH NON METALLIC, MOLDED POLYMERIC WALLS, OR INFLATABLE FABRIC WALLS REGARDLESS OF DIMENSION. (The maximum water depth of 42" does not apply to inflatable swimming pools.)

1) **Storable Pool Pumps**
   a. A cord-connected pool filter must incorporate an approved system of double insulation or equivalent
   b. Cord-connected pool filter pumps must be provided with a ground-fault circuit interrupter (GFCI) that is an integral part of the attached plug or located in the power supply cord within 12" of the attached plug.

2) **Receptacle (Outlet) and Wiring Method for Storable Pool Pump**
   a. Receptacles cannot be located within 6' of the inside wall of a storable pool.
   b. The receptacle must be grounded, must be Ground Fault Circuit Interrupter (GFCI) protected, and the Tamper Resistant (TR), and Weather Resistant (WR) type receptacle.
   c. Receptacle must have an In-use, extra-duty weatherproof cover that can be closed when the cord is plugged in.
   d. An Automatic Timer (Time Switch) must be installed on storable swimming pool pumps.

3) **Luminaries (lights) for Storable Pools (if used)**
   a. Luminaries cannot have exposed metal parts and must be listed for the purpose.
   b. Luminaries 15 Volts or less must:
      i. Have a luminaire lamp that operates at 15 volts or less
      ii. Have an impact-resistant polymeric lens, luminaire body, and a transformer enclosure
      iii. Have a transformer listed for swimming pools with a primary rating not over 150 volts
   c. Luminaries Over 15 Volts but not over 150 volts must:
      i. Have an impact-resistant polymeric lens and luminaire body
      ii. Have Ground Fault Circuit Interrupter (GFCI) protection.

4) **Other**
   a. Building Permits are required. Secure a Building Permit from your municipality prior to beginning work.
   b. Pool Alarms may be required. (Check with your local Building Department for additional information.)
   c. All receptacles located within 20' of the inside walls of a storable pool wall must be GFCI protected.