



CITY OF NEENAH
Department of Community Development
(Inspection Department)
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POOL AND HOT TUB/SPA REGULATIONS
A BUILDING PERMIT IS REQUIRED BEFORE THE INSTALLATION OF A POOL.

A pool is any man-made structure, basin, chamber, pond or tank containing or capable of containing an artificial body of water having a depth of two feet (2') or more at any point. Natural occurring bodies of water such as lakes, ponds, rivers, etc. as well as required storm water retention ponds are not considered pools under this definition. The cost of a pool permit is \$30.00 for above ground and \$50.00 for in-ground pool.

Location

Pools and related equipment shall be located behind the front setback lines, and 10 feet from side and rear lot lines except that when said pool is enclosed with a 6' high privacy fence, the required side and rear yard may be reduced to 6'. Pools must also be installed so that any overhead electrical wires are either offset 10 feet horizontally from the edge of the pool or at least 22.5 feet above the water line of the pool (see back page). Pools also must be offset 5 feet from any underground electrical wires.

Corner Lots

Lot line setback rules are more complicated for corner lots and this information should be obtained directly from our inspection staff.

Protective Enclosures Required

All private residential pools, whether in ground or above ground types, shall be enclosed with an adequate and secure fence at least 44 inches high above adjoining grade to prevent straying into pool area. Required fences shall be constructed to prohibit the passage of a four inch (4") sphere between fence members, and the bottom of said fence shall be no more than two inches (2") above the existing ground elevation. Any gates installed shall be constructed so as to be capable of being locked, and shall be closed and secured so as to prevent unlatching by persons outside the pool area when the pool is not in use.

Exception

A pool dome or pool top fencing, attached to the pool to extend at least forty-four inches (44") above the ground, or a pool cover capable of supporting 100 pounds per square foot of area are acceptable substitutes for fencing above ground pools. Pool covers shall be fixed securely in place at all times when the pool is not in use. Above grade pools with self-supporting walls that are at least forty-four inches (44") high at all points around said pool or having platforms and railings that are forty-four inches (44") or more in height above grade are also not required to be enclosed as provided in paragraph (3) (a), but the ladders and stairways providing access to said pools shall be removed, raised or gated and secured to prevent entry whenever pool is not in use.

Portable Hot Tubs/Spas

Portable hot tubs and spas do not require a pool permit, but must comply with the pool location, enclosure and electrical requirements mentioned in this document and must be installed according to the manufacturer's instructions. Some of these requirements are as follows:

1. A secured tub cover capable of supporting 100 pounds must be provided.
2. All circuits supplying the hot tub/spa must be ground fault protected.
3. An emergency disconnect switch must be installed in sight of and between 5' to 10' from the tub. This switch or switches must disconnect power to all the tub equipment.
4. See next section for additional electrical requirements.

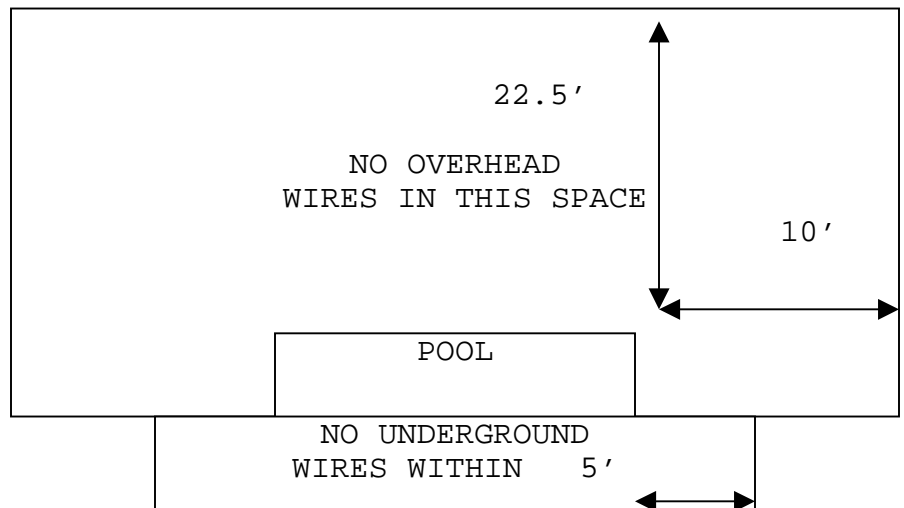
Electrical Safety Requirements

All electrical installations provided for, installed, and used in connection with pools and hot tubs/spas shall be in conformance with the National Electrical Code (NEC). The following is a summary of some of the more important electrical requirements: (Contact the Neenah Electrical Inspector for further information.)

1. At least one receptacle outlet shall be installed between 10 & 20 feet from the pool. No receptacle shall be located less than 10 feet from the inside edge of the pool except that a single plug, locking type outlet, for pool equipment only, may be located no less than 6 feet from the pool.
2. This outlet and all others within 20 feet of the pool shall be protected by a ground fault circuit interrupter. (G.F.C.I. – see example) Also, any light or light switch within 6 feet of the pool must be G.F.C.I. protected.
3. All metallic parts of the pool and any metal equipment or fences within 5 feet of the pool must be bonded together and grounded.

G.F.C.I.

Ground Fault Circuit Interrupter

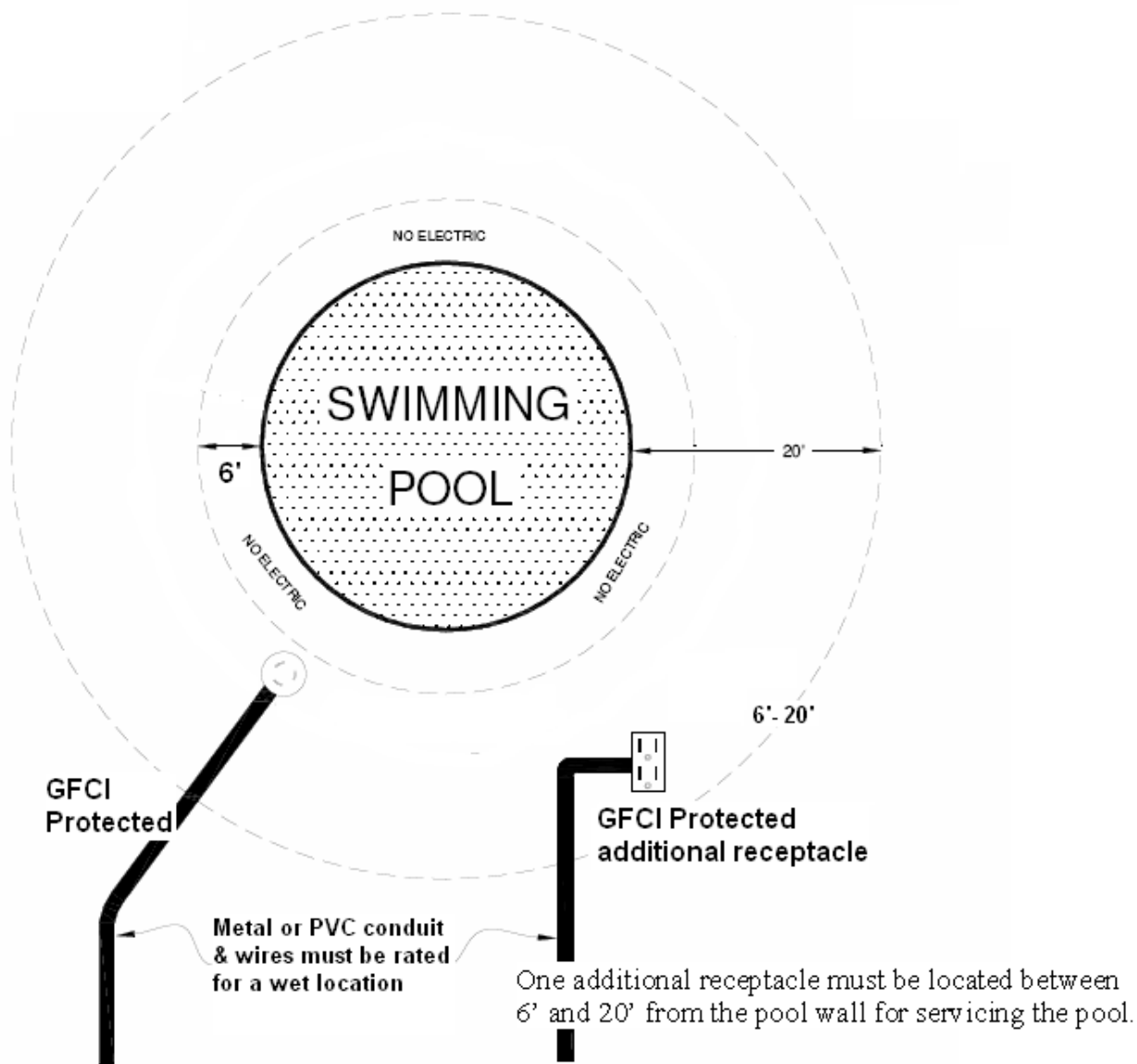




A fence is **NOT** required for this type of Swimming Pool as long as the side walls are a minimum of 44 inches in height from grade to the top of the wall around the entire pool and a removable or swing up and locking stairs are used for access and the pool is not connected to a deck.

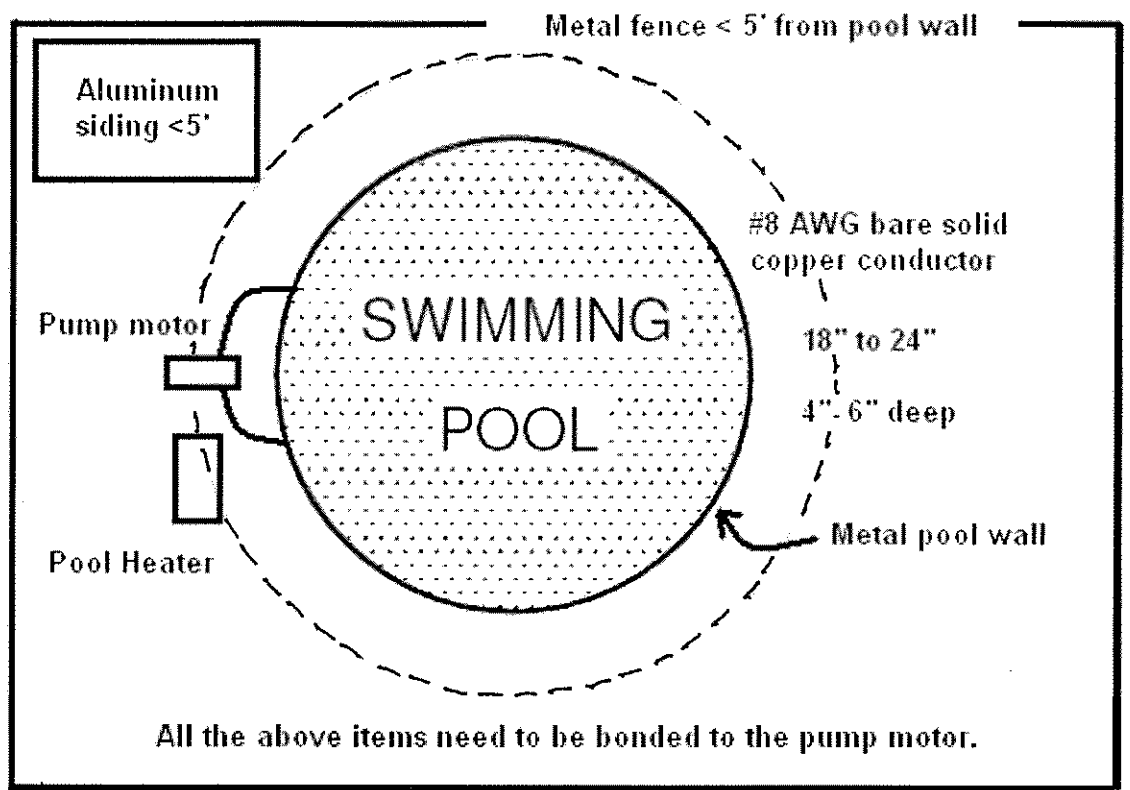


A fence **IS REQUIRED** for this type of swimming pool regardless of the height of the side walls if capable of holding more than 24" inches of water.



Pump motor wiring

1. The conduit must be trenched in a minimum of 18" deep up to the pump motor receptacle.
2. If the pump draws 10 or more amps, a separate dedicated circuit is required.
3. Wiring must be in rigid non-metallic (PVC) or rigid metal conduit (exposed 12-2 UF cable is not permitted). 12-3 UF cable inside PVC conduit from the house to the pool is permitted.
4. Conductors in the conduit must all be insulated, including the equipment grounding conductor (3 insulated conductors required).
5. Conductors must be approved for **Wet** locations and have a "W" (for wet) included in the labeling on the individual wires (i.e. THWN or THHW).
6. The pump motor receptacle must be a single **Twist Locking Receptacle** only.
7. The receptacle cover must be a wet location type (bubble cover type).
8. The cord for the pump shall **not exceed 3'** in length and shall consist of 12-3 gauge wire with a **twist locking type plug/receptacle**.
9. The circuit must be GFCI protected.



680.26 Equipotential Bonding

(Does not apply to Inflatable Pools)

1. A minimum of one, 8 AWG bare solid copper conductor shall be provided around the perimeter of the pool.
2. Only listed splices are permitted in the conductor.
3. The required conductor shall be located 18" to 24" from the inside wall of the pool.
4. The conductor shall be buried 4" to 6" below grade and shall follow the contour of the ground surface.

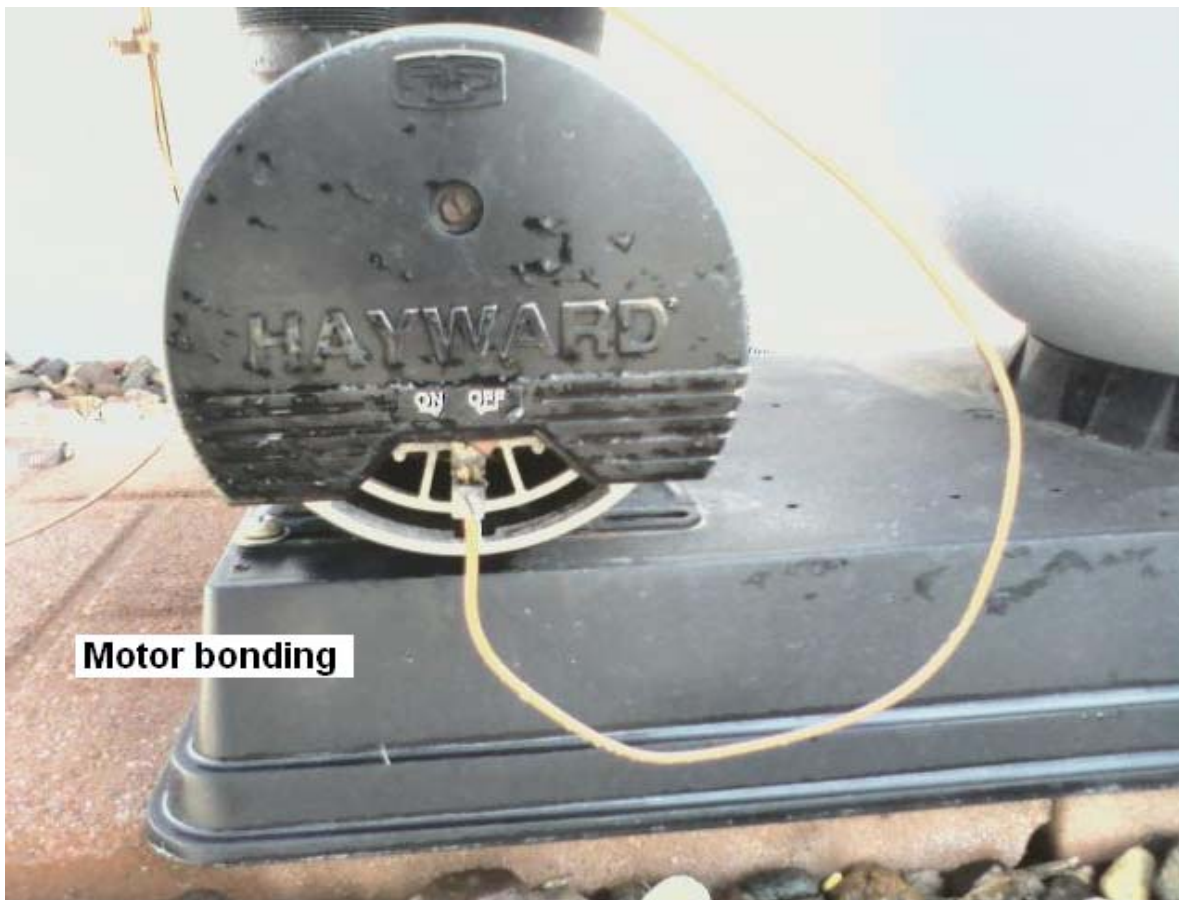
Pool Water Bonding

(Does not apply to Inflatable Pools)

1. An intentional bond of a minimum conductive surface area of 9 square inches shall be installed in contact with the pool water (see photos below).

A minimum conductive surface area of 9 square inches shall be installed in contact with the pool water





Motor bonding

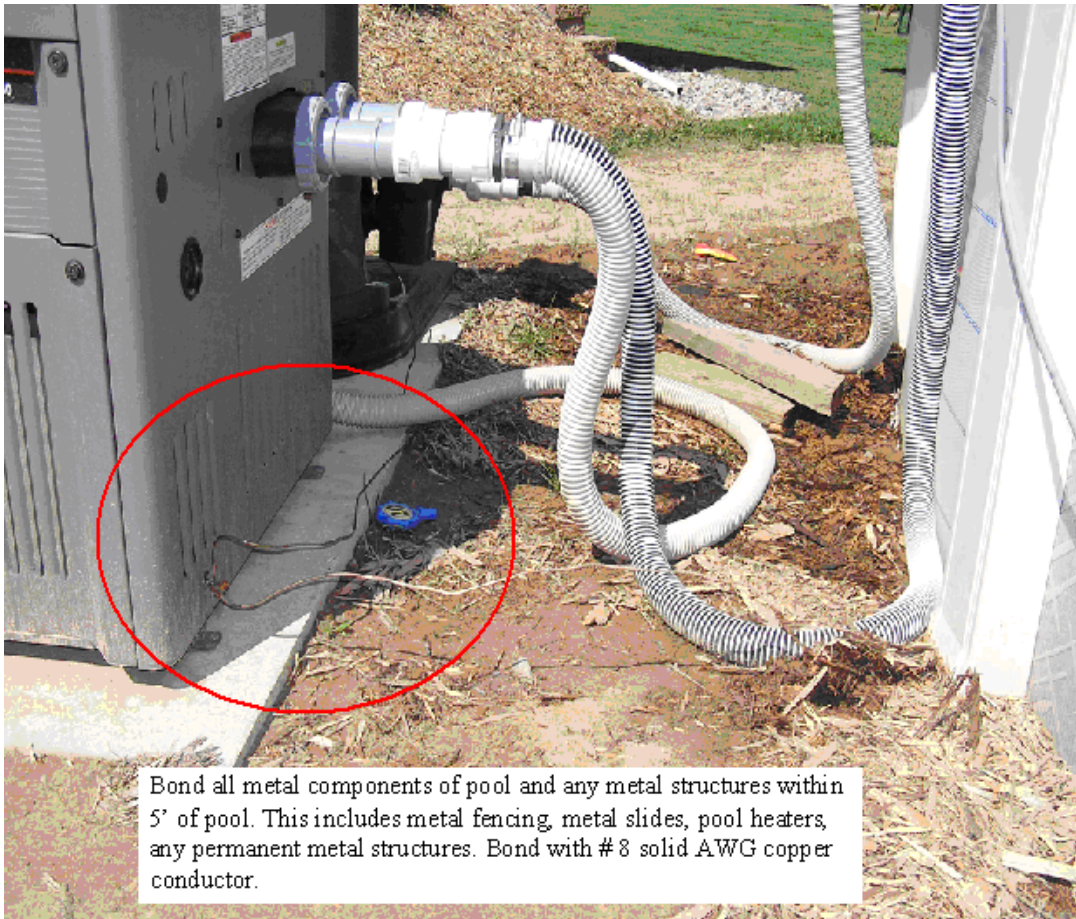


Splices must be a split bolt type connector

8 solid copper wire 18"-24" from pool wall & trenched 4"-6" deep



Bond pool wall with #8 solid copper conductor



Bond all metal components of pool and any metal structures within 5' of pool. This includes metal fencing, metal slides, pool heaters, any permanent metal structures. Bond with #8 solid AWG copper conductor.



Up to one horse power motor-Twist lock receptacle is acceptable for the disconnecting means. No other disconnect required.



Greater than one horse power motor-disconnect required.
Disconnect must be horse power rated \geq the motor.
A bubble cover twistlock receptacle can be used in addition
to the disconnect. Timers must be horse power rated \geq motor.