# HOT TUB

# **BUILDING PERMIT APPLICATION CHECKLIST**

Fill out and sign the "Hot Tub Permit Application" form. Incomplete application can result in a denied permit. Building permit fee is paid after approval and when it is picked up.
Fill out the separate "Electrical Permit Application" and Must include the electrical permit fee check, see electrical permit fee schedule, payable to "Township of Moon".
Fill out and sign the "Permit Agreement" form.
Fill out and sign the "Workers Compensation Affidavit of Exemption" form <i>OR</i> Provide proof of Workers Compensation Insurance Certificate and name Moon Township as a certificate holder.
Fill out and sign the "Hot Tub Affidavit" form.
Provide 2 copies of the "Property Survey Plot Plan". Add outline and location of the proposed hot tub drawn to scale on the "Property Survey Plot Plan". Show dimensions from all 4 property lines to the proposed hot tub.
Provide details, plans, brochure, construction plan of the hot tub.
Provide details, brochure, cut sheets of required lockable spas and hot tubs safety cover that complies with ASTM F1346.

All swimming pool, spa and hot tub installations shall comply with Pa State UCC adopted 2015 International Swimming Pool and Spa Code. ISPSC

Swimming pools and hot tubs and any related equipment are required to be set back 10' from the side and rear property lines. They are not permitted to be located in the front yard. The water's edge of a swimming pool and hot tub is required to be 6' away from any grade level non-tempered glass window, door etc.

Swimming pools and hot tubs cannot be located on a easement or right of way.

Any questions, email the Building Official, Dave Meinert, dmeinert@moontwp.us



1000 Beaver Grade Road, Moon Township, PA 15108 412.262.1700 • moontwp.us SWIMM

# SWIMMING POOL, HOT TUB AND ZONING PERMIT APPLICATION

Location of Construction	n:						
		Street		City	State	Zip	
Applicant's Name:							
Applicant's Phone No.:			_ Email:				
Applicant's Address:		Street					
-	<b>—</b>			City	State	Zip	
Type of Improvement:	Aboveground Pool	Inground Pool	🗌 Hot Tub	Other (specify)			
Total Cost of Improveme	ents:		_	_			
Type of Use:	Residential	Commercial	Industrial	Other (specify)			
Property Information:				99 Interneting and a second second			
Zoning District:	Cou	nty Lot & Block No.:		Lot Size:			
Subdivision Name:				Lot No.:			
Owner's Name:							
Owner's Phone No.:			Email:				
Owner's Address:							
_		Street		City	State	Zip	
Occupant's Name:			Occupant's	Occupant's Phone No.:			
Zoning Setbacks (the di	stance between the stru	acture and the prop	erty lines):				
Front Yard:	Rear Yard:	Rig	ht Side:	Left Side	ə:		
Proposed Construction:							
Size:	x						
Pool Depth:	Diving Board						
Contractor's Company Na	ıme:		Contact P	erson:			
Contact Phone No.:		Em					
Contractor's Address:							
The Applicant/Owner boroby	Street	ĩ.		City	State	Zip	

The Applicant/Owner hereby certifies that the statements made herein and representations contained in all accompanying matter part of this application are true and correct. The Applicant/Owner shall be responsible for reviewing and fully understanding all permit conditions and insuring compliance to all applicable codes and ordinances. The Applicant/Owner shall also be responsible for any fees incurred in relation to the above project. The Applicant/Owner grants Moon Township Officials the right to enter onto the property for inspecting the work permitted and posting notices. As Applicant, I hereby certify that proposed work is authorized by the Owner of record and I have been authorized by the Owner to make this application as his authorize agent.

Applicant/Owner's Signature:

Date:

In considering of the issuance by the Township of Moon (the "Township") of a Building Permit, Zoning Permit and other permits for the property located at

and to the undersigned property Owner(s) or the Agent(s) (the "Applicant"), the Applicant acknowledges that, in reviewing plans and specifications, in issuing permits and inspection work of the Applicant; the employees, consultants, elected or appointed official of the Township are only performing their duties to require compliance with the minimum requirements of the applicable ordinances of the Township and the minimum requirements of the applicable ordinances of the Township and the minimum requirements of the police power of the Township and are not warranting to the Applicant or to any third party the quality of adequacy of the design, engineering or work of the Applicant or their agents or contractors.

Applicant further acknowledged that although plan review and inspections will be provided, it will not be possible for the Township to review every aspect of the Applicant's design and engineering or to inspect every aspect of the Applicant's work. Accordingly, neither the Township nor any of its elected appointed officials, consultants, or employees shall have any liability to the Applicant for defects or shortcomings in such design, engineering or work, even if it is alleged that such defects or shortcomings should have been discovered during the Township's review or inspection, Furthermore, the Applicant agrees to defend, hold harmless and indemnify the Township, its elected officials, consultants and employees from and against any and all claims, demands, actions, and causes of actions of any one or more third parties arising out of or relating to the Township's review or inspection of the Applicant's design, engineering, or work or issuance of a permit or permits, or arising out of or relating to the design, engineering or work done by Applicant pursuant to such permit or permits. All references in this Agreement to Applicant's design, engineering or work shall include such design, engineering, and work, which is performed by the Applicant or by the Applicant's employees, agents, independent contractors, subcontractors or any other person or entities performing work pursuant to the issuance of the Building Permit Zoning Permit and other permits by the Township.

<b>Owner/Agent's</b>	Signature
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Date \_\_\_\_

**Print Name** 

# SWIMMING POOL - HOT TUB AFFIDAVIT

As the owner and owner's agent and swimming pool contractor of the property located at (address of pool construction)

in Moon Township, Pennsylvania, I am aware of, and I have received a copy of the building permit checklist/requirements for the enclosure and safety devices of a swimming pool, hot tub, and spa in accordance with the PA Uniform Construction Code.

- I am aware as the property owner and owner's agent and pool contractor, that the pool or spa shall be appropriately protected by a code compliant constructed fence or barrier during and after construction.
- A swimming pool, hot tub, or spa shall not be used or occupied until Moon Township has granted all final electrical, mechanical and building inspections approvals.

All approved inspections and occupancy permit must be obtained prior to use of the swimming pool, hot

tub.

Hot Tubs require the following inspections:

- Electrical rough and final inspections
- Final building inspection

Aboveground pools require the following inspections:

- Electrical rough and final inspections
- Final building inspection

Inground pools require the following inspections:

- Electrical rough and final inspections.
- Electrical bonding inspection before concrete is poured.
- Final building inspection including the pool, hot tub, door alarms, and gates, fence pool barrier.

I am aware that all future additional alterations, deck, swimming pool barrier fence, etc. always requires a building permit and compliance inspections.

Signature	_ Date			
Name (please print)	Contact No.			

# ELECTRICAL PERMIT APPLICATION CHECKLIST

MOON TOWNSHIP, 1000 BEAVER GRADE RD, MOON TOWNSHIP, PA 15108 412-262-1700

FILL OUT AND SIGN THE "ELECTRICAL PERMIT APPLICATION" FORM.
FILL OUT AND CALCULATE FEE ON THE "ELECTRICAL PERMIT FEE WORKSHEET".
ADD UP ALL FEES IN THE COLUMN TO THE TOTAL FEE
FEE CHECK FOR TOTAL AMOUNT MADE TO "MOON TOWNSHIP".
SUBMIT "ELECTRICAL PERMIT APPLICATION" AND "ELECTRICAL PERMIT FEE WORKSHEET" AND FEE PAYMENT CHECK MADE TO MOON TOWNSHIP ALL IN HARD COPY TO THE MOON TOWNSHIP OFFICE

• Electrical permit fee check must be submitted together with the Electrical Permit Application and the Electrical Permit Fee Worksheet.

• Contact the electrical inspector to schedule electrical inspections at,

Electrical Inspector, John Panek, 412-974-5445.

Permit No.

1000 Beaver Grade Road, Moon Township, PA 412-262-1700

# ELECTRICAL PERMIT APPLICATION

Job Address:	
Subdivision:	Property Lot #:
Applicant:	Applicant Phone #:
Property Owner:	
Property Owner Address:	
Property Owner Phone #:	
Property Occupant Name:	Property Occupant's Phone #:
Electrician's Name:	Electrician's Phone #:
Electrician's Address:	City:
Type of Improvement: New Construction Addit	ion 🗆 Alterations 💭 Other:
application are true and correct. The Applicant/Owner shall be compliance with all applicable Codes and Ordinances. The App relation to the above proposed project. The Applicant/Owner inspecting the work permitted and posting notices. As an appl	e responsible for reviewing and fully understanding all permit conditions and ensuring plicant/Owner shall also be responsible for any fees incurred (engineering, etc.) in grants Moon Township officials the right to enter onto the property for the purpose of icant, I hereby certify that proposed work is authorized by the Owner of Record, and I
Applicant/Owner's Signature	Date:
Call Electrical Inspector to schedule your	inspection - Electrical Inspector - John Panek 412-974-5445

Office Use Only

Permit Fee

Check No./ Receipt No.

Permit Approved by



1000 Beaver Grade Road, Moon Township, PA 412-262-1700

## **RESIDENTIAL ELECTRICAL PERMIT FEE WORKSHEET**

Item Description	Qty		Fee	Total
1.) Re-inspection Fee, Additional Inspection Fee and Minimun Trip Fee		Х	\$150	
2.) Residential Flat Rate, New Construction up to 400A		Х	\$400	
3.) Residential Additions and Alterations (Two Inspections)		Х	\$250	
4.) Services and Subpanels up to 400A (One Inspection )		Х	\$150	
5.) Residential Alterations up to 15 Outlets and Services to 200A (One Inspection)		Х	\$150	
6.) Hot Tubs (One Inspection )		Х	\$150	
7.) Aboveground Swimming Pools (One Inspection)		Х	\$150	
8.) Inground Swimming Pools (Two Inspections ) (Swimming Pool panels and/or pool houses are extra, use above fees)		Х	\$250	
9.) Photo Voltaic Systems		Х	\$350	
10.) Solar array battery backup, power wall		Х	\$100	
11.) Electric vehicle Chargers		Х	\$200	
12.)Temporary construction service		Х	\$150	
13.) Residential Generator Installation		Х	\$250	
			Chata Fac	¢4.50
	Flat State Fee			\$4.50
All Commercial Electrical Permit Applications <b>MUST</b> include this worksheet and a made to <b>Township of Moon</b> , in the total amount calculated.		nt fee	Total	
Sign and Print NameDateDate				
Sign and Print Name		Date	2	

### HAZERDOUS LOCATIONS

Glass (Glazing) near a hot tub, swimming pool. Any glass within 60" of the water's edge shall be tempered glass. The hot tub, swimming pool water's edge shall be at least 60" from non-tempered.

**R308.4.5 Glazing and wet surfaces.** Glazing in walls, enclosures or fences containing or facing hot tubs, spas, whirlpools, saunas, steam rooms, bathtubs, showers and indoor or outdoor swimming pools where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) measured vertically above any standing or walking surface shall be considered to be a hazardous location. This shall apply to single glazing and each pane in multiple glazing.

**Exception**: Glazing that is more than 60 inches (1524 mm), measured horizontally and in a straight line, from the water's edge of a bathtub, hot tub, spa, whirlpool or swimming pool or from the edge of a shower, sauna or steam room.

## Summary of Electrical Installation for Residential Spas and Hot Tubs

## Refer to 2017 National Electric Code for complete code requirements.

## Permitting and Inspections Requirements

All electrical wiring, except some types of low voltage, require inspections and therefore a permit.

The inspector will need access to all portions of the new wiring installation.

#### Location

Carefully choosing the location for a spa or hot tub can minimize the challenge of meeting code requirements. The NEC restricts where lights and receptacles may be in relation to the spa or hot tub.

The NEC also has requirements for bonding near a spa or hot tub which apply to metal parts 4" or larger located within 5' horizontally and 12' vertically even if they are not part of the spa or hot tub itself. Metal parts such as covers, door or window frames, ventilation openings, the metal grid of suspended ceilings metal gutters and metal fences are a few of the things that can be a challenge to properly bond per NEC requirements.

Bonding requirements may also include conductive perimeter surfaces around the spa or hot tub.

### Wiring Methods in General

The NEC has specific requirements for the type of raceways permitted and for the type of equipment grounding conductor permitted for spas and hot tubs. The requirements depend on whether the installation is indoor or outdoor, whether it supplies the disconnection means or the spa or hot tub itself.

In general, the area within 5' of an indoor spa or hot tub is considered to be a wet, damp location. In these locations the wiring method must include a copper equipment grounding conductor.

For outdoor installations, the location must consider existing overhead and underground wiring.

### Disconnecting Means - NEC 680.13

A disconnecting means shall be provided and be accessible, located within sight from all pools, spas, and hot tub equipment, and shall be located at least 1.5m (5 feet) from the inside walls of the pool, spa, or hot tub.

#### Switching Devices - NEC 680.22(C)

Switching devices on the property shall be located at least 1.5m (five feet) horizontally from the inside walls of a pool unless it is a listed device approved for use in that area or separated from the pool by a solid fence, wall, or other permanent barrier.

### INDOOR SPAS AND HOT TUBS

### Wiring methods - 680.43

Except for areas considered to be wet, damp or corrosive, the types of wiring approved for interior residential use are suitable. By exception, listed spa and hot tub packaged units rated 20 amps or less shall be permitted to be cord and plug connected.

Within any area considered to be wet, damp or corrosive, the wiring method used must include a copper equipment grounding conductor not smaller than #12 AWG with terminations suitable for the environment. NEC 680.21(A)(1)

#### Receptacles - 680.43(A)

- At least one 125-volt 15- or 20-ampere receptacle on a general-purpose branch circuit shall be located a minimum of 1.83m (6 feet) from and not more than 6m (20 feet) from the inside walls of the pool or hot tub
- No receptacle may be within 6' of the inside walls of the pool or hot tub.
- GFCI protection is required for all receptacles within 20' of the inside walls of a pool or hot tub.
- Any receptacle that provides power for a spa or hot tub shall be ground-fault circuit-interrupter protected.

Mounting Height of Lighting Fixtures, Lighting Outlets, and Ceiling-Suspended (Paddle) Fans. NEC 680.43(B) Lighting fixtures, lighting outlets, and ceiling-suspended (paddle) fans located over or within 5' horizontally of the inside walls of the spa or hot tub...

- Shall not be less than 12' above the highest water level without restriction.
- Shall not be less than 7 %' above the highest water level with GFCI protection.
- May be less than 7 %' above the highest water level with GFCI protection and meeting the additional requirements of NEC 680.43(8)(1)(c) (1) or) (2)

### Bonding NEC 680.43(D)

The following parts shall be bonded together:

- All metal fittings within or attached to the spa or hot tub structure.
- Metal parts of electrical equipment associated with the spa or hot tub water circulating system, including pump motors unless part of a listed, labeled and identified self-contained spa or hot tub.
- Metal conduit, and metal piping within 1.5m (five feet) of the inside walls of the spa or hot tub and that are not separated from the spa or hot tub by a permanent barrier.
- All metal surfaces that are within 1.5m (five feet) of the inside walls of the spa or hot tub and not separated from the spa or hot tub area by a permanent barrier. Exception: Small, isolated, conductive surfaces not likely to become energized.
- Electrical devices and controls that are not part of a listed spa or hot tub.

### Methods of Bonding - NEC 680.43(E)

Metal parts that are required to be bonded shall be bonded by any of the following methods:

- The interconnection of threaded metal piping and fittings.
- Metal-to-metal mounting on a common frame or base.
- A solid copper bonding jumper, insulated, covered, or bare, not smaller than No. 8.

### OUTDOOR SPAS AND HOT TUBS

#### Wiring Methods - NEC 680.21

The portion of the wiring inside of the residential structure can consist of any of the types of wiring approved for interior residential use. NEC 680.21(A)(1)

The portion of the wiring outside of the residential structure must include an insulated copper equipment grounding conductor. Where installed in a corrosive environment near the spa or hot tub it must contain an insulated copper equipment grounding

conductor not smaller than #12 AWG and be installed in rigid metal conduit, intermediate metal conduit, jacketed MC Cable, or where protected from physical damage, PVC or reinforced thermosetting resin conduit. NEC 680.14(B), 680.21(A)(1)

Note: Nonmetallic rigid conduit is not approved for above ground use outdoors if exposed to physical damage due to brittleness in cold weather.

### Flexible Connections - NEC 680.42(A)(2)

Listed packaged units utilizing a factory-installed remote panelboard shall be permitted to be connected with liquid-tight flexible metal, liquid-tight flexible non-metallic conduit per NEC 680.42(A)(1) or be cord and plug connected with a cord not longer than 4.6m (15 feet) where protected by a ground-fault circuit interrupter per NEC 680.42(A)(2). The receptacle must have a cover that is waterproof while in use.

### Receptacles - NEC 680-22(A)(1) thru (A)(S)

- At least one 125-volt 15- or 20-ampere receptacle on a general-purpose branch circuit shall be located a minimum of 1.83m (6 feet) from and not more than 6m (20 feet) from the inside walls of the pool or hot tub
- No receptacle may be within 6' of the inside walls of the pool or hot tub.
- GFCI protection is required for all receptacles within 20' of the inside walls of a pool or hot tub.

### Lighting Outlets - NEC 680.22(8)

- New outdoor lighting outlets must be at least 12' above the maximum water level and at least 5' horizontally from the inside walls of the spa or hot tub. NEC 680.22(B)(1)
- Existing outdoor lighting outlets within 5' horizontally of the inside walls must be at least 5' above the maximum water level, rigidly attached to structure and be GFCI protected. 680.22(B)(3)
- Lighting outlets in adjacent areas, between 5' and 10' horizontally from the inside walls and less than 5' above the maximum water level, must be GFCI protected. 680.22(B)(4)
- For cord and plug connected luminaires low voltage luminaires low voltage gas fired luminaires, decorative fireplaces, fire pits and similar equipment see NEC 680.22(B)(5), (6) and (7)

### **Overhead Conductor Clearances - NEC 680.9**

There must be a minimum of 4.4m (14.5 feet) in any direction from an observation stand, tower, or diving platform, and 6.9m (22.5 feet) in any direction from the water level or edge of water surface.

#### Underground Wiring - NEC 680.11

Only wiring necessary to supply the spa or hot tub is permitted under the spa or hot tub. All wiring within 5' of the spa or hot tub must use one of the following wiring methods.

- Rigid metal conduit
- Intermediate metal conduit
- Rigid PVC conduit
- Rigid thermosetting resin conduit
- Type MC cable with an overall non-metallic jacket listed for underground use.
- Liquid tight flexible metallic conduit
- Liquid tight flexible non-metallic conduit

#### Equipotential Bonding - NEC 680.26

All-metal parts over 100mm (four inches) in any dimension (except the metal bands or hoops used to secure wooden staves noted by NEC 680.42.B) within 1.5m (five feet) horizontal and within 3.?m (12 feet) above the spa or hot tub must be bonded together (NEC 680.26.B.5).

Conductive perimeter surfaces around a spa or hot tub must be bonded per 680. 42(B).