

Electrical Safety During a Flood or Ice Storm

During or after storms or other disasters it is vital to avoid damaged electrical wiring. Initially, power substations may be disconnected, rendering distribution services both useless and harmless. However, never consider a circuit harmless until a qualified electrician repairs the damage, or at least disconnects all circuits that are potential hazards.

Water in the proximity of electricity may pose a lethal hazard. To protect yourself, your family and neighbors in the aftermath of an ice storm or flood or similar disaster, the University of Arkansas Cooperative Extensions Service offers this advice:

- Avoid stepping into a wet or flooded area. If there are submerged power distribution wires, they may energize the standing water and more than 10 yards around the perimeter. Within damaged or flooded buildings, electrical outlets, wiring or electrical cords may energize the water, posing a potential lethal danger.
- Portable electric generators are often put into use for temporary power. However, they can become deadly if improperly installed or operated. After a tornado in Little Rock, a utility worker was electrocuted by current flowing back into the power distribution, making a “downed” power line hot in contact with the worker.
- Every standby generator needs to be grounded properly. To avoid “shorts” and potential electrocution, keep the generator dry.
- Do not connect generators directly to household wiring. A qualified, licensed electrician should install your generator to ensure that it meets local electrical codes.
- Do not operate the generator in an enclosed or partially enclosed space. Gasoline or diesel engines may produce deadly levels of carbon dioxide. Engine exhaust should be vented where it is diluted into outside air.
- Take special care not to overload the generator. Assure that any extension cords connected to the generator are rated for the current load. It should have a grounded, three-pronged plug and be free of cuts and worn insulation.
- If it is possible, use ground fault circuit interrupters (GFCI) around any water hazard. This will help prevent electrocutions and electrical shock injuries. Portable GFCIs for electrical outlets that don’t require tools for installation are available in most electrical and hardware supply stores at prices ranging from \$12 to \$30.
- Don’t use electrical appliances that have been wet until they are sound. Water may damage electrical motors in furnaces and appliances, such as freezers, refrigerators, washing machines and dryers. If certain appliances have been under water, a qualified service repairman can recondition them.

Additional electrical safety information can be found on the Electrical Safety Foundation International website, www.electrical-safety.org.