

# Safety after the storm

## OPERATING PORTABLE GENERATORS

**When a storm downs power lines, electricity is often one of the initial services to fail. In response, many people use portable generators to weather the inconvenience until power is restored.**

### Carbon Monoxide Hazards

While a portable generator can solve some of the stress of managing a storm's aftermath, consumers need to operate them with caution. Portable generators are powered by internal combustion engines. As the fuel burns to power the portable generator, it emits carbon monoxide (CO) into the air. Every year, people die in incidents related to portable generator use. Most of the incidents associated with portable generators reported to the U.S. Consumer Product Safety Commission (CPSC) involve CO poisoning from portable generators used indoors or in partially-enclosed spaces.

UL, a global safety organization, recommends the following safety tips to protect against carbon monoxide poisoning:

- If you have a portable generator, **make sure it is UL Certified**. Look for the UL Mark for low carbon monoxide portable generators on the front of the packaging and the UL holographic certification label with the Enhanced Mark on the bottom of the product. These labels are your indication that you have a genuine UL Certified product.
- **Place the portable generator at least 20 feet away** from the home and any air inlets.

- **NEVER** use a portable generator inside homes, garages, crawl spaces, or other partly enclosed areas. Deadly levels of carbon monoxide can build up in these areas. Using a fan or opening windows and doors does NOT supply enough fresh air.
- **Use a carbon monoxide alarm** – Even when you use a portable generator correctly, CO may leak into the home. **ALWAYS** use a battery-powered or battery-backup CO alarm in the home.
- **Follow instructions** – Follow the instructions that are provided with your portable generator. Being mindful of these guidelines helps ensure that the CO produced by the portable generator will not find its way into the home, where it can potentially endanger occupants.

**⚠ DANGER**

Using a generator indoors **CAN KILL YOU IN MINUTES**. Portable generator exhaust contains carbon monoxide. This is a poison you cannot see or smell.

 <p><b>NEVER</b> use inside a home or garage, even if the doors and windows are open.</p>	 <p>Only use <b>OUTSIDE</b> and at least 20 feet away from the home and any air inlets.</p>
--	--

### Carbon Monoxide Poisoning

If you start to feel sick, dizzy, or weak after the portable generator has been running, move to fresh air **RIGHT AWAY**. See a doctor. You could have carbon monoxide (CO) poisoning.

Because carbon monoxide (CO) is odorless and cannot be seen, these alarms are your only “warning” that poisonous gases may be in your home.

# Safety after the storm

## OPERATING PORTABLE GENERATORS

### Electrical Hazards

- **NEVER power the house by connecting a portable generator to an electrical outlet** – The practice, known as “backfeeding,” is extremely dangerous and presents an electrocution risk. Portable generators used to power a building during an outage must be connected through transfer equipment that isolates the portable generator supply from the utility supply.
- **Use proper electrical connections** – Use UL Listed outdoor extension cords when connecting the portable generator to run power back to the house. Also, note the maximum wattage a portable generator produces, and never exceed that amount with the appliances you plug in. Appliances should have their wattage listed on the products.
- **Ground fault circuit interrupters (GFCIs)** – These can help prevent electrocution. The majority of portable generators do not include GFCI protection. Use of a portable GFCI is recommended. It requires no special knowledge or equipment to install. One type contains the GFCI circuitry in a self-contained enclosure with plug blades in the back and receptacle slots in the front. It can then be plugged into a receptacle, and the electrical products are plugged into the GFCI. Another type of portable GFCI is an extension cord combined with a GFCI. It adds flexibility in using receptacles that are not protected by GFCIs. Portable GFCIs should be used only on a temporary basis and should be tested prior to every use.
- **Portable generators typically are not weatherproof** – They can pose the risk of electrocution and shock when used in wet conditions. Use them outdoors, but keep them protected from direct exposure to rain and water. Portable generators should be operated on a dry surface where water cannot reach them.
- **Portable generators vibrate in normal use** – During and after use of the portable generator, inspect it as well as extension cords and power supply cords connected to it for damage resulting from vibration. Have damaged items repaired or replaced as necessary. Do not use plugs or cords that show signs of damage, such as broken or cracked insulation or damaged blades.

### Fire Hazards

- **Limit gasoline storage and look for the UL Mark on gasoline containers** – Gasoline expands when heated, producing fumes that can be ignited by the smallest spark. The more gas on hand, the more fumes in the air and the greater the risk of a fire starting from even a light switch or static electricity.
- **Fuel and vapors are extremely flammable** – Before refueling the portable generator, shut the engine off and let it cool down, as fuel spilled on hot parts can ignite.

### About UL

UL fosters safe living and working conditions for people everywhere through the application of science to solve safety, security and sustainability challenges. The UL Mark engenders trust enabling the safe adoption of innovative new products and technologies. Everyone at UL shares a passion to make the world a safer place. We test, inspect, audit, certify, validate, verify, advise, and train. We support these efforts with software solutions for safety and sustainability.

For more information, visit: [www.ul.com/stormsafety](http://www.ul.com/stormsafety)



## Empowering Trust™

UL and the UL logo are trademarks of UL LLC © 2018.

1018