



Safety Tips for Portable Generator Usage

If a winter storm leaves you without power, a portable generators may seem like a life-saving device. But if not used properly, it can be a life-threatening device.

Hazards associated with portable generators include carbon monoxide (CO) poisoning, electric shock, electrocution and fire.

For these reasons, it is essential to know how to safely use a portable generator before a power outage occurs.

University of Georgia Cooperative Extension specialists recommend following these safety tips to protect yourself and your family from carbon monoxide (CO) poisoning, electric shock, and fire hazards related to generators:

Carbon monoxide hazards

Carbon monoxide is an odorless, colorless and deadly gas. Exposure to carbon monoxide causes carbon monoxide poisoning. High concentrations of carbon monoxide can cause unconsciousness and even death. To help prevent carbon monoxide poisoning follow these tips:

1. Never operate a portable generator indoors or in partially enclosed spaces (garages, crawlspaces, and basements), even with ventilation. Carbon monoxide can quickly build up indoors and in partially enclosed spaces, even those that are ventilated. Opening doors and windows, using fans, etc. will not prevent carbon monoxide from building up in the home.
2. Place portable generators outdoors away from areas that allow outdoor air to come indoors (doors, windows, and vents).
3. Read, understand and follow all directions that come with your portable generator.
4. Install battery-operated or battery backed-up carbon monoxide alarms. This type of carbon monoxide alarm will continue to work during a power outage. Test carbon monoxide alarms frequently and replace batteries when needed.
5. Get fresh air immediately if you feel dizzy, weak or sick. Carbon monoxide poisoning can occur quickly.

Remember, you cannot smell or see carbon monoxide. It does not matter if there is no exhaust smell coming from the portable generator. You still may be exposed to carbon monoxide.

Electrical hazards

Water and electricity don't mix. To help protect against electric shock follow these tips:

1. Keep portable generators dry and do not use a portable generator in wet conditions.
2. Place portable generators on a dry surface under a canopy-like structure that is outdoors and located away from the home.
3. Dry your hands before touching portable generators.
4. Never plug the extension cord running from the generator into an outlet in the house. This causes the electricity to flow backwards and could electrocute someone in the house or in another home. This is known as 'backfeeding' and poses an electrocution risk to utility workers and neighbors served by the same transformer. If the generator must be connected to house wiring, have a qualified electrician install appropriate equipment that meets code. Or, contact your utility company. Your utility company may be able to install an appropriate power switch.
5. Plug appliances directly into the portable generator, if possible. If you can't plug appliances directly into the portable generator, use a heavy-duty outdoor rated extension cord. Be sure to use an extension cord that is rated equal to the sum of the connected appliance loads. Inspect the extension cord to make sure that it is in good condition.

Fire hazards

To help prevent fires related to portable generators, follow these tips:

1. Do not store fuel in living areas. Store fuels in appropriate, sealed and labeled containers. Make certain that fuels are stored away from fuel-burning appliances.
2. Clean up spilled fuel immediately. Make certain that all fuel storage containers are sealed. Spilled fuel or improperly sealed containers can spell trouble. Invisible fuel vapors can be ignited by either a pilot light or arcs from electric switches in fuel-burning appliances.
3. Do not refuel a hot generator. Gasoline that is spilled on a hot generator can catch fire.

For more information on generator safety, see the U.S. Consumer Product Safety Commission (CPSC) fact sheet, "CPSC Safety Alert: Portable Generator Hazards."

The fact sheet is available as a pdf file in English and Spanish.

Sources: Gina Peek and Jorge Atilas – UGA Cooperative Extension, U.S. Consumer Product Safety Commission (CPSC). 2005. *CPSC Safety Alert: Portable Generator Hazards*. Washington, D.C.