



**Consumer Energy Center**  
CALIFORNIA ENERGY COMMISSION

## Generator Safety

According to the the Consumer Product Safety Commission, the misuse of the portable power sources killed at least five people and sickened dozens more after Hurricane Katrina.

The Associated Press reported on October 13, 2005, that many people relied on portable generators after the hurricane knocked out most of the power in the Gulf Region. And that was deadly for those who did not use their generator properly.

AP said, "The five deaths were among fifty-one cases of carbon monoxide poisoning reported in Louisiana, Mississippi and Alabama after the hurricane, according to the Centers for Disease Control and Prevention. All of these cases involved the misuse of portable generators, except for one that involved a gasoline-powered pressure washer. Four deaths occurred in one Louisiana house where a generator was used. The fifth death occurred in a Louisiana house where a generator was used in an attached garage."

All of these portable generator-related deaths could have been prevented.

Here are some basics regarding portable generators. **But the first thing to do is Read the Instruction Booklet or Manual that came with the generator.** If the manual is lost or missing, contact the generator's manufacturer.

**Never use a generator indoors or in an attached garage.**

A portable generator is an internal combustion engine that exhausts a deadly gas called carbon monoxide or CO. CO is odorless and colorless, and you can be overcome if the generator is indoors.

Be sure to place the generator outside where exhaust fumes will not enter into enclosed spaces. Only operate a generator outdoors in a well-ventilated, dry area, away from air intakes to the home. The generator should be protected from direct exposure to rain and snow.

**Don't connect your generator directly to your home's wiring.**

Connecting a portable electric generator directly to your household wiring can be deadly. A generator that is directly connected to your home's wiring can 'backfeed' into the power lines connected to your home.

Utility transformers can then increase this lower electrical voltage to thousands of volts. That's more than enough to kill a utility lineman making outage repairs many miles away. You could also cause expensive damage to utility equipment, your home appliances, and your generator.

If you wish to hard-wire a generator to your home, it should be installed by a licensed electrician with an approved cut-off switch that will automatically disconnect the home from the power grid when the generator is being used. Please check with your local utility company and building office before installing a hard-wired generator.

**Don't plug a portable generator into an electrical outlet in your home or garage.**

If a generator is plugged into your home's electrical circuits, it can still 'backfeed' power into the utility company lines, which can injure or kill utility workers fixing on the downed power lines.

The correct way to use a generator is to connect a heavy-duty, outdoor-rated power cord to the generator. Appliances can then be connected to the power cord, as long as they are in the wattage range that the generator can supply.

Make sure that the outdoor-rated power cord has a sufficient wire gauge to handle the electrical load.

**Don't overload the generator.**

All generators have a power rating. They should be used only when necessary and only to power a limited number of appliances or equipment.

The total wattage used by the appliances should be less than the output rating of the generator. If you put too many appliances on the generator, it could seriously damage the appliances and electronics. Overloading the generator could also cause fires in the power cord. If in doubt, don't add that extra load to the generator.

**Make sure your generator is properly grounded to avoid electrical shocks.**

Check the generator owner's manual for correct grounding information.

**Do not store gasoline for the generator indoors.**

Gasoline should be stored in approved, non-glass safety containers.

Don't store gasoline in a garage if there's a water heater or other fuel-burning appliance in the garage. Vapor from gasoline is heavier than air and can travel invisibly along the floor. It could be ignited by a pilot light or other source of flame, such as an electric spark.

Extinguish all flames or cigarettes when handling gasoline or the generator.

Shut off the generator before refueling. Turn off all equipment powered by the generator before shutting it down.

**Always have a fully charged, approved fire extinguisher located near the generator.**

**Read and adhere to the manufacturer's directions for safe operation.**

Read the owner's manual before you operate the generator. If you've lost the manual, contact the manufacturer for another copy. You can often download the manual from a manufacturer's Web site. Keep the owner's manual with the generator in a zip-lock bag to keep it dry.

### **Final Tips**

Many generator parts are hot enough to burn you during operation. Stay away from the muffler and other hot areas.

Keep children away from portable electric generators at all times. Be safe!!! 73

<http://www.consumerenergycenter.org/tips/generators.html>