



PORTABLE GENERATOR SAFETY GUIDELINES

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Portable Generator Safety Guidelines



EHS wants the University Community to know that portable generators can be hazardous if used improperly. The major hazards are carbon monoxide poisoning and electrocution.

For safe generator operation, follow these simple steps:

Step 1: **READ THE OPERATORS MANUAL.**

- Thoroughly read, understand and follow all manufacturers' recommendations. Be sure you understand them **BEFORE** hooking up the generator. Follow the manufacturer's instructions to properly ground the generator. Never exceed the manufacturer's recommended load limit.

Step 2: **MAINTAIN ADEQUATE VENTILATION.**

Generators emit carbon monoxide. Never operate a generator inside an enclosed space. Place it in a dry, sheltered (weather protected), level, outside location at least 25 feet away from air intakes, windows or doors. Never operate a generator near combustible materials.

To avoid carbon monoxide (CO) poisoning:

- Never use a generator indoors or in attached garages.
- Only operate the generator outdoors in a well-ventilated, dry area, away from air intakes.
- Protect the generator from direct exposure to rain & snow – preferably under a canopy. Don't restrict the airflow around the generator to allow for adequate cooling.



- Carbon monoxide (CO) is colorless, odorless, and tasteless and is a very deadly gas that is present in the exhaust fumes of an operating gasoline powered engine.
 - Breathing carbon monoxide for only a few minutes can kill you. Carbon Monoxide displaces oxygen molecules which reduces the amount of oxygen our blood cells can deliver to the heart, brain, and other tissues. Nearly 300 people die every year from carbon monoxide poisoning and thousands of others become ill or seek medical attention.
 - Breathing lower levels of carbon monoxide can cause fatigue and increase chest pain in people with chronic heart disease.
 - Breathing higher levels of carbon monoxide causes flu-like symptoms, such as headaches, dizziness, and weakness. It also causes sleepiness, nausea, fatigue, vomiting, confusion, and disorientation.
 - Breathing very high levels of carbon monoxide causes loss of consciousness and death.
- If you experience any of these symptoms and have any reason to suspect carbon monoxide poisoning, immediately leave the area and seek fresh air. Obtain medical treatment if necessary. Contact EHS to monitor for carbon monoxide.

Step 3:

HANDLE FUEL CAREFULLY.

- Turn the generator off to refuel and allow generators to cool for at least 2 minutes PRIOR to refueling. Gasoline and gasoline vapors may ignite if they come in contact with hot components or an electrical spark.
- Only store fuel in approved, labeled safety containers in a well-ventilated location outside of buildings.
- Ensure there is a fully charged dry chemical fire extinguisher (minimum rating of 10A: 80BC) present at each generator location.
- Check the engine oil level every time you refuel.



Step 4:

TO AVOID ELECTROCUTION:

- Make sure the generator is properly grounded and placed in a dry location. If improperly grounded, the entire generator could become electrically charged and cause electrocution.
- Do not plug the generator into a wall outlet.
- Do not operate or store the generator in wet or damp conditions or on highly conductive locations such as metal decking and steel work.
- Follow manufacturer's instructions for properly grounding the generator or do the following:
 - Use at least #8 copper grounding wire to connect the generator to a grounding source such as a water pipe that travels into the ground at least 10 feet or a metal rod specifically designed for grounding that has been driven into the ground at least 8 feet.



Step 5:

USE THE RIGHT EXTENSION CORD.

- Use only UL-listed, three-prong extension cords. Be sure the extension cord is the proper size (wire-gauge) to handle the electric load that will be plugged into it. A HOT CORD IS AN OVERLOADED CORD.
- Use a Ground Fault Circuit Interrupter (GFCI).
- Keep all extension cords out of the way or securely taped down to avoid tripping hazards.
- NEVER run extension cords under carpeting or other potentially combustible materials. Heat can build up in such areas and pose a fire danger.

