Portable Generators Safety

Portable generators can be hazardous if used improperly. The hazards are carbon monoxide (CO) poisoning from the toxic engine exhaust, and electrocution from connecting the generator to the home electrical wiring system.

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 to the home, and protected from direct exposure to rain and snow, preferably under a canopy, open shed, or carport.

To avoid electrocution:

- Plug individual appliances into the generator using heavy duty, outdoor-rated cords with a wire gauge adequate for the appliance load.
- Observe the manufacturer's instructions for the generator for safe operation.
- Do not plug the generator into a wall outlet.
- If connecting the generator into the house wiring is necessary, have a qualified electrician hook up the standby electrical system, or have the local utility install a linking device, if available.
- *Generators should be grounded by bonding the generator to a non-grounding source or by driving a 6-foot grounding rod into the ground and attaching a single 10-gauge copper wire to the grounding rod and generator.*

Never store gasoline inside a living space. Gasoline, kerosene, and other flammable liquids should be stored outside of living areas in properly labeled, non-glass safety containers. They also should not be stored in a garage if a fuel-burning appliance is in the garage. The vapor from gasoline can travel invisibly along the ground and be ignited by pilot lights or arcs caused by activating electric switches.

If at all possible, avoid connecting the electrical output of the generator into the house wiring. Instead, connect individual appliances that have their own outdoor-rated power cord directly to the receptacle outlet of the generator, or connect these cord-connected appliances to the generator's electrical outlet via a suitable, outdoor-rated extension cord having a sufficient wire gauge to handle the electrical load.

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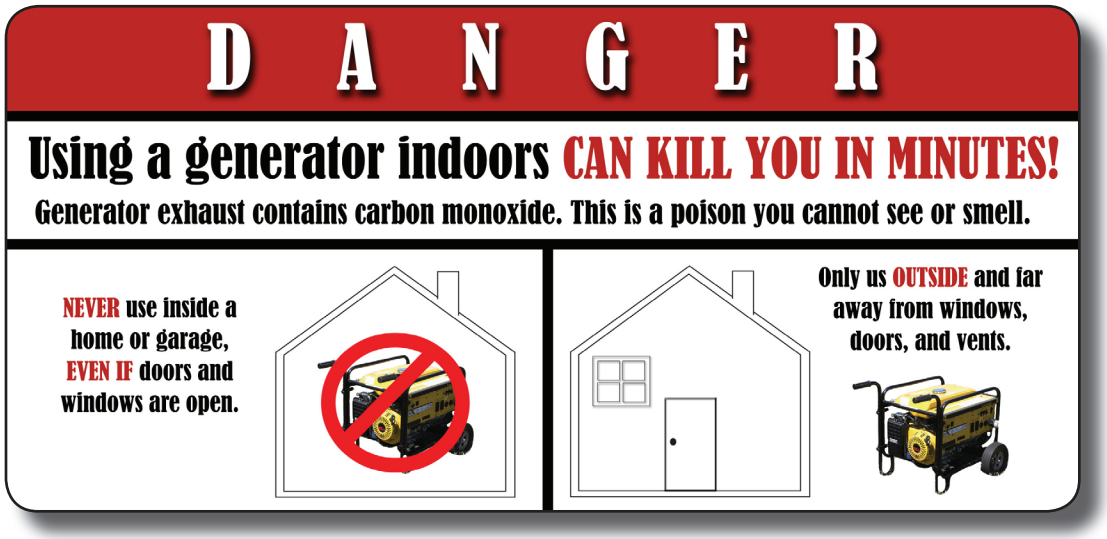
If connecting into the house wiring is necessary on a temporary basis to operate permanently wired equipment, such as a water pump, furnace blower/controls, room lighting, etc., there are important steps that require the utmost care to avoid electrocution. In some locations, the local utility company may offer to install a device at the electric meter socket to permit their customers to connect a portable generator to the household wiring during periods of power outages. If that service is not available or chosen, another method is to have a qualified electrician install a manual transfer switch.

A transfer switch permits transfer of the load from the household power source that is normally supplied by the electric utility over to the portable generator. The transfer switch should be certified by UL or another independent test lab for this application, and be mounted within an electrical box. Transfer switches and related accessories designed for connecting a standby system are available from electrical supply stores. These accessories include:

- Cord sets with special locking and recessed connectors.
- Electrical boxes with controls for the branch circuits that will receive temporary power from the generator.
- Feeder cable to connect the existing electrical panel to the transfer switch.

When properly installed, the transfer switch will isolate the circuits supplied by the generator from those normally supplied by the utility. This prevents inadvertently energizing circuits in both systems, and reduces the possibility of electrocution resulting from contact with conductors presumed to be de-energized. Do not operate more appliances and equipment than the output rating of the generator.



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