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PRESS RELEASE

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FOR IMMEDIATE RELEASE

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PORTABLE GENERATORS: UNDERSTAND THE HAZARDS

Without proper maintenance and use, a portable generator poses serious hazards.

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Portable generators can temporarily provide power to farms and ranches during disasters or severe weather events. They are internal combustion engines suitable for temporarily generating electricity.

However, users need to be aware of the serious harm generators can cause to property and people if they aren't used in a safe manner.

Hazards associated with generators include

- Shocks and electrocution from improper use of power or accidentally energizing other electrical systems.
- Carbon monoxide coming from a generator's exhaust.
- Fires that occur from improperly refueling a generator or inappropriately storing fuel for the generator.
- Noise and vibration hazards.

The electricity produced by a generator poses the same hazards as utility-supplied electricity. Additional hazards associated with generators occur when users bypass built-in safety devices (such as circuit breakers) found in electrical systems.

These precautions can help reduce shock and electrocution hazards related to portable generator use:

- Never attach a generator directly to the electrical system of a structure such as a home, office, trailer, unless a qualified electrician has properly installed the generator with a

transfer switch. Attaching a generator directly to a building's electrical system without a properly installed transfer switch can energize wiring systems for great distances. This creates a risk of electrocution for utility workers and others in the area.

- Always plug electrical appliances directly into the generator using the manufacturer's supplied cords or extension cords that are grounded (3-pronged). Inspect the cords to make sure they're fully intact and not damaged, cut or abraded. Never use frayed or damaged extension cords. Ensure the cords are appropriately rated in watts or amps for the intended use. Do not use underrated cords. Replace them with rated cords that use heavier gauge wires. Don't overload a generator, because doing so can lead to overheating and creation of a fire hazard.
- Use ground fault circuit interrupters (GFCIs), especially where electrical equipment is used in or around wet or damp locations. GFCIs shut power off when an electrical current is detected outside normal paths. GFCIs and extension cords with built-in GFCI protection can be purchased at hardware stores, do-it-yourself centers, and other locations that sell electrical equipment. Regardless of GFCI use, electrical equipment used in wet and damp locations must be listed and approved for those conditions.
- Make sure the generator is properly grounded and grounding connections are tight. Consult the manufacturer's instructions for proper grounding methods.
- Keep the generator dry. Don't use it in the rain or wet conditions. If necessary, protect the generator with a canopy. Never manipulate a generator's electrical components if you're wet or standing in water.
- Don't use electrical equipment that has been submerged in water. Equipment must be thoroughly dried out and properly evaluated before using. Power off and do not use any electrical equipment that has strange odors or begins smoking.

Colorless, odorless carbon monoxide (CO) is a toxic gas. Many people have died due to exposure to CO when their generator was not properly ventilated. Even if you can't smell exhaust fumes, you may have been exposed to CO. To avoid CO exposure, follow these guidelines:

- Never use a generator indoors or in enclosed spaces such as garages, crawl spaces or basements. Be aware that open windows and doors may NOT prevent CO from building up when a generator is located in an enclosed space.
- Make sure the generator has between 3 and 4 feet of clearance on all sides and above it to ensure adequate ventilation.
- Don't use a generator outdoors if its placement near doors, windows, and vents might allow CO to enter and build up in occupied spaces.
- If anyone in the vicinity of the generator displays symptoms of CO poisoning – dizziness, headaches, nausea, fatigue – immediately go to an area with fresh air and seek medical attention. Don't re-enter the area where CO buildup is suspected until trained and properly equipped personnel has determined the area is safe.

Generators pose fire hazards under the following conditions:

- While they're running, portable generators become hot. They remain hot for long periods after they stop running. Generator fuels – gasoline, kerosene, etc. – can ignited when spilled on hot engine parts.

- Before refueling a generator, shut it down and allow it to cool.
- Store and transport gasoline and other generator fuels in approved containers properly designed and marked for contents.
- Maintain an adequate supply of fuel. Assess your generator's rate of fuel consumption and consider how much you can store for how long. Gasoline and diesel stored for long periods may need added chemicals to ensure they're safe to use. Check with your supplier for storage recommendations.
- Keep fuel containers away from flame producing and heat generating devices (the generator, water heater, cigarette, lighter, matches, etc.). Don't smoke around fuel containers. Be aware that escaping vapors or vapors from spilled materials can travel long distances to ignition sources.
- Don't store generator fuels in your home. Store them well away from living areas.

Don't overlook the noise and vibration hazards associated with portable generators.

- Generator engines vibrate and create noise. Excessive noise and vibration could cause hearing loss and fatigue that may affect job performance.
- Keep portable generators as far away as possible from work areas and gathering spaces.
- If generators cannot be placed at a distance from these areas, wear hearing protection.

Additional safety precautions for using generators include:

- Disconnect power coming into your house/business before operating your generator. Otherwise, power from your generator could be sent back into the utility company lines, creating a hazardous situation for utility workers.
- Regularly inspect and complete maintenance activities for your generator. Check above-ground storage tanks, pipes and valves to identify cracks and leaks. Immediately replace damaged materials. Tanks may require a permit or must meet other regulatory requirements. Complete a maintenance service at least one time per year. Periodically run the generator to make sure it will be ready when its needed.

Since every emergency is different, learn about and follow guidance from your state and local emergency management authorities and local utility company. Before engaging in an activity that could impact utility services, contact your local utility company to ensure your activities are completed safely.

For additional resources, visit www.ready.gov or www.benefits.gov.

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