



# J. B. Shepherd & Company, Inc.

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## Portable Generators and Back-Feed can be Deadly.

### A public service announcement by:

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Connecting a portable generator to your home wiring system, often called back-feeding, turns a useful tool into a dangerous one. Often, online you will find tutorials on how to back-feed your generator safely, but it's common for these tutorials overlook the risks of the practice.

Now that hurricane season is approaching many Floridians are asking, how do I safely use my portable generator?

Here are my suggestions:

1. Read and follow the manufacturer's instructions.
2. **DO NOT** operate your generator where deadly carbon monoxide exhaust gas can enter your home or anyone else's.
3. Safely store extra fuel. Use approved gasoline containers in good condition and follow any written instructions.
4. Use electrical cords in good condition. Check that the original cord ends are in place, that no ground pins cut off or missing, and that no insulation is damaged.
5. Use appropriately sized electrical cords. For generator outlets protected by 15 amp circuit wire use a #14 AWG copper cord. For outlets protected by 20 amp circuit breakers use a #12 copper cord. Connect your critical loads to the generator using these extension cords.
6. **DO NOT** energize your house using a 'back-feed' connection. Even for experienced electricians, back-feeding is dangerous.

As a forensic engineer, we have had cases where persons were injured or killed by back-feeding. Your back-fed generator can put thousands of volts on electric utility circuits, which endangers utility workers. Your back-fed generator may also energize the wiring in your neighbor's home, which not only puts yourself, but also those around you at risk for major injury or death.