



PORTSMITH COA

# PORTABLE GENERATOR RULES AND USAGE GUIDELINES

PORTSMITH BOARD OF  
DIRECTORS

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# Guidelines and Rules for Portable Generators

Portsmouth COA (Condominium Owners Association)

## Introduction

In the event of an emergency which results in a power outage in the Portsmouth Community, the use of portable generators can provide essential power to residents in Portsmouth COA. However, it is crucial to follow specific guidelines and rules to address safety issues to ensure the well-being of all residents.

## Guidelines for Safe Use

### Allowable Generator Run Time

A portable generator in Portsmouth can only be run between the hours of 7 A.M. – 10 P. M. If you have an approved medical device that requires 24-hour usage, consult a board member before any emergency event and include this information on your Alteration Form for approval to use a generator beyond the allowable hours. All medical devices are capable of being powered by a battery generator at night (which can be charged during the day using a mechanical generator).

### Proper Installation

NOTE: (An alteration form (with Generator Information Form) must be submitted and approved before using any type of portable generator).

- Always consult a professional electrician to install the generator if connecting it to the main electrical panel in your home. **This option requires a generator power receptacle, a generator bypass interlock, or a generator transfer switch, which must be permitted, installed, inspected and tested by a licensed electrician.**
- Ensure the use and installation of any generator complies with local building and electrical codes.
- Natural gas line connection installations **must be** installed and tested by a licensed registered plumber.
- Position the generator on a flat, dry surface outside the villa, away from windows and doors.
- Do not operate the generator **during times of active precipitation or other inclement weather.**

### Ventilation Rules

- Portable generators must be used outdoors to prevent carbon monoxide poisoning.
- Locate the generator in the driveway at least 20 feet away from any living space. If this distance is not possible, consult the generator committee before any generator use.

- **NEVER** operate a generator in a lanai, garage, basement, or enclosed area.

## Fuel Handling

- Use only the manufacturer-recommended fuel type.
- Store fuel in approved containers away from living areas.
- Turn off the generator and let it cool down before refueling (20 minute minimum).

## Operation

- Follow the manufacturer's instructions for starting and operating the generator.
- Do not overload the generator; check its wattage capacity and connect only essential appliances.
- Use heavy-duty, grounded extension cords designed for outdoor use (12 gage wire minimum) sized for the load being supplied. See Appendix I for load values of typical appliances and electrical products.

## Safety Issues

### Carbon Monoxide Poisoning

- Generators emit carbon monoxide, a deadly gas that is odorless and colorless.
- Anyone using a portable generator must have a working (battery-operated or generator powered) carbon monoxide detector in your home.
- If anyone experiences symptoms of carbon monoxide poisoning, such as dizziness, headache, or nausea, **evacuate the premises and** seek fresh air immediately and call emergency services.

### Fire Hazards

- Portable generators can be a fire risk if not handled properly.
- Keep the generator dry and shielded from rain or snow **and do not operate the generator in times of active precipitation or other inclement weather.**
- Ensure the generator is placed away from flammable materials and vegetation.

### Electrical Hazards

- Do not connect the generator directly to your home's wiring without a transfer switch installed by a qualified electrician.
- Do not use a generator in wet conditions or touch **the generator extensions cords, or any appliance connected to the generator with wet hands.**

- Inspect extension cords for any damage before **each** use.

## Noise Pollution

- Portable generators can be noisy. Use only models with noise reduction features (mufflers, sound absorption materials).
- Place the generator in a location that minimizes noise disturbance to neighbors.
- Face the exhaust of the generator toward the street.
- Use fire retardant sound absorbing materials under and around the generator to minimize noise levels further.
- Ask neighbors if the noise is bothersome. (Be considerate of neighbors.)

## Other Considerations

- Use the generator only for the time needed to operate appliances, lights or charging devices.
- Consider solar charging for phones and other low power battery operated devices.
- **Consider asking** your neighbors **s** if you can store any of their perishable food in your refrigerator.
- Use a thermometer with **a** remote sensor in your refrigerator or freezer to monitor food temperatures without opening the door.

## Conclusion

By adhering to these rules and guidelines, and addressing safety issues, residents of Portsmouth COA can effectively and safely use portable generators during emergencies. Prioritize safety and health to ensure the well-being of everyone in the community.

# Standard Distance for Measuring Decibel Levels of Portable Generators

## An Overview of Measurement Practices

### Introduction

Measuring the decibel levels of portable generators is essential in determining their noise impact on the environment and ensuring compliance with regulatory standards. This practice is integral to both manufacturers and consumers, providing a clear understanding of the noise emissions during generator operation.

### Decibel Measurement Standards

Decibel levels, commonly referred to as dB(A), are measured using standardized methods to ensure accuracy and consistency. The noise measurement typically occurs in an open, outdoor environment to simulate real-world conditions.

### ANSI and ISO Standards

The American National Standards Institute (ANSI) and the International Organization for Standardization (ISO) have established guidelines to standardize noise measurement. These guidelines specify the distance from the source of the noise (the generator) to the measurement point, ensuring that results are comparable across different models and brands.

### Standard Measurement Distance

The standard distance for measuring decibel levels of portable generators is generally set at 7 meters (approximately 23 feet). This distance is widely accepted and used in most noise testing procedures. The rationale behind this distance includes:

- **Accuracy:** Measuring at 7 meters helps capture the noise emissions more accurately, considering the dispersion of sound waves.
- **Consistency:** A standardized distance allows for consistent comparison between different generators.
- **Regulatory Compliance:** Many regulations mandate this distance to ensure that the noise levels reported are within a realistic range of operational use.

## Measurement Setup

During the measurement process, the generator is placed on a flat, hard surface to mimic typical use conditions. The sound level meter is positioned at the specified distance, ensuring that there are no obstructions between the meter and the generator. The meter should be at the same height as the generator to avoid any interference with sound wave travel.

## Factors Affecting Noise Measurements

Several factors can influence the accuracy of decibel measurements:

- Environmental Conditions: Wind, temperature, and humidity can affect sound wave propagation.
- Background Noise: Ambient noise levels should be minimized to ensure that the measurement reflects only the generator's noise.
- Generator Load: Noise levels can vary depending on whether the generator is operating under load or idle conditions.

## Conclusion

Understanding the standard distance for measuring the decibel levels of portable generators is crucial for accurate and consistent noise assessment. Adhering to the 7-meter measurement standard ensures that noise levels are reported reliably, aiding in compliance with regulations and providing valuable information to consumers and manufacturers alike.

# APPENDIX I



A typical range for portable generator noise levels, measured in decibels (dBA), is **between 50 and 80 dBA**. Some generators can be quieter, with levels below 50 dBA, while others, particularly larger ones, can reach 80 dBA or higher. These levels are typically measured at a distance of 7 meters (21 feet). [1, 2, 3, 4]

### Factors Influencing Generator Noise Levels: [2, 3, 5]

- **Generator Size and Type:** Larger generators and those with larger engines generally produce more noise. [2, 2, 3, 6]
- **Engine Design:** Enclosed engines and low-noise designs can significantly reduce noise levels. [3, 3]
- **Operating Load:** Noise levels may vary depending on the load the generator is carrying. [1, 1, 7]
- **Distance:** Sound levels typically decrease as distance from the generator increases. [4, 4, 8]
- **Enclosure and Insulation:** Generators with enclosures or sound-dampening features can reduce noise levels. [4, 4, 9]

### Examples of Noise Levels: [10, 10]

- **Quiet Generator:** A Honda EU3000iS Super Quiet Inverter Generator operates at 50 to 57 dB(A). [2, 3, 10, 10]
- **Normal Conversation:** A normal conversation is around 60 dB(A). [10, 10, 11]
- **Heavy City Traffic:** Heavy city traffic is around 90 dB(A). [12, 12]
- **Threshold of Pain:** The threshold of pain is 140 dB(A). [4, 4]

*Generative AI is experimental.*

- [1] <https://www.westonma.gov/DocumentCenter/View/23529/Sound-Level-Calcs>
- [2] <https://resources.hy-techroof.com/blog/bid/61493/portable-generator-noise-levels-understanding-decibels-dba>
- [3] <https://www.electricgeneratorsdirect.com/stories/936-Generator-Decibel-Comparison.html>
- [4] <https://incal.cummins.com/www/literature/technicalpapers/PT-7015-NoiseSolutions-en.pdf>
- [5] <https://eventsparks.co.uk/are-generators-noisy/>
- [6] <https://generator-pro.co.uk/blog/understanding-generator-noise-level-regulations/>
- [7] <https://www.justanswer.com/electronics/81jer-burner-noise-levels-noise-spectrum-db-levels-natural.html>
- [8] [https://www.researchgate.net/figure/Comparison-of-Noise-Levels-dBA-from-power-generating-sets-in-Nnewi-North-with-NESREA\\_fig1\\_320644964](https://www.researchgate.net/figure/Comparison-of-Noise-Levels-dBA-from-power-generating-sets-in-Nnewi-North-with-NESREA_fig1_320644964)
- [9] <https://www.bellwoodrewinds.co.uk/understanding-noise-levels/>
- [10] <https://direct.powerequipment.honda.com/generators/models/eu3000is?bvstate=pg:7/ct:r>
- [11] <https://decibelpro.app/blog/how-loud-is-60-db-compared-to-other-volumes/>
- [12] <https://cdn.powerequipment.honda.com/pe/pdf/misc/Honda-Generators-dBA-Chart-2018.pdf>

*Not all images can be exported from Search.*

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## Energy Use of Home Appliances, Page 3

### Locating Wattage

You can usually find the wattage of most appliances stamped on the bottom or back of the appliance, or on its "nameplate." The wattage listed is the maximum power drawn by the appliance. Since many appliances have a range of settings (for example, the volume on a radio), the actual amount of power consumed depends on the setting used at any one time.



You can find the wattage information on the bottom or back of many appliances.

<b>Electric Blanket - Single/Double</b>	60 / 100
<b>Fan - ceiling</b>	65 - 175
<b>Fan - window</b>	55 - 250
<b>Fan - furnace</b>	750
<b>Fan - whole house</b>	240 - 750
<b>Hair Dryer</b>	1200 - 1875
<b>Heater (portable)</b>	750 - 1500
<b>Clothes Iron</b>	1000 - 1800
<b>Microwave Oven</b>	750 - 1100
<b>Personal Computer - CPU - awake / asleep</b>	120 / 30 or less
<b>Personal Computer - Monitor - awake / asleep</b>	150 / 30 or less
<b>Laptop</b>	50
<b>Radio (stereo)</b>	70 - 400
<b>Refrigerator (frost free, 16 cubic feet)</b>	725
<b>19" Television</b>	65 - 110
<b>27" Television</b>	113
<b>36" Television</b>	133
<b>53" - 61" Projection TV</b>	170
<b>Flat Screen TV</b>	120
<b>Toaster</b>	800-1400
<b>Toaster Oven</b>	1225
<b>VCR / DVD</b>	17 - 21 / 20 - 25
<b>Vacuum Cleaner</b>	1000 - 1440
<b>Water heater (40 gallon)</b>	4500 - 5500
<b>Water pump (deep well)</b>	250 - 1100
<b>Water bed (w/heater, no cover)</b>	120 - 380

## Amperes and Voltage

Credit: [thefamily8](#) <sup>[1]</sup> from [flickr](#) <sup>[2]</sup> is licensed under [BY CC 2.0](#) <sup>[3]</sup>

A refrigerator, although turned "on" all the time, actually cycles on and off at a rate that depends on a number of factors. These factors include how well it is insulated, room temperature, freezer temperature, how often the door is opened, if the coils are clean, if it is defrosted regularly, and the condition of the door seals.

To get an approximate figure for the number of hours that a refrigerator actually operates at its maximum wattage, divide the total time the refrigerator is plugged in by three.

The table below shows wattage of some typical household appliances.

Power consumption (Wattage)	
Appliance	Wattage (range)
Clock Radio	10
Coffee Maker	900 - 1200
Clothes Washer	350 - 500
Clothes Dryer	1800-5000
Dishwasher	1200-2400
Hair Dryer	1200-1875
Microwave Oven	750-1100
Laptop	50
Refrigerator	725
36" Television	133
Toaster	800-1400
Water Heater	4500-5500

Typical range of power consumption (Wattage) of some commonly used appliances

Appliance	Wattage
Aquarium	50 - 1210
Clock Radio	10
Coffee Maker	900 - 1200
Clothes Washer	350 - 500
Clothes Dryer	1800-5000
Dishwasher	1200 -2400 (using the drying feature greatly increases energy consumption)
Dehumidifier	785



Click for a description  
of the amp meter.

Credit: © Penn State  
is licensed under [CC BY-NC-SA 4.0](https://creativecommons.org/licenses/by-nc-sa/4.0/) [4]

If the wattage is not listed on the appliance, you can still estimate it by finding the current draw (in amperes) and multiplying that by the voltage used by the appliance.

Most appliances in the United States use 120 volts. Larger appliances, such as clothes dryers and electric cooktops, use 240 volts. The amperes might be stamped on the unit in place of the wattage.

If not, find an **ammeter** to measure the current flowing through it. You can obtain this type of ammeter in stores that sell electrical and electronic equipment.

Take a reading while the device is running; this is the actual amount of current being used at that instant.

## Phantom Loads

Also note that many appliances continue to draw a small amount of power when they are switched "off."

These "phantom loads" occur in most appliances that use electricity, such as VCR, televisions, stereos, computers, and kitchen appliances.

Most phantom loads will increase the appliance's energy consumption a few watts per hour. These loads can be avoided by unplugging the appliance or using a power strip and using the

switch on the power strip to cut all power to the appliance.

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**Source URL:**<https://www.e-education.psu.edu/egee102/node/1915>

**Links**

[1] <https://www.flickr.com/photos/90494562@N05/8222743554/> [2] <https://www.flickr.com/> [3] <https://creativecommons.org/licenses/by/2.0/> [4] <https://creativecommons.org/licenses/by-nc-sa/4.0/>

## Using Portable Generators Safely

**Portable generators are internal combustion engines used to generate electricity. They are useful when temporary or remote power is needed, and are commonly used during cleanup and recovery efforts following disasters such as hurricanes, tornadoes, etc. This fact sheet discusses specific hazards inherent with the use of generators and also provides helpful information to ensure that workers and others using such equipment remain safe.**

### Hazards Associated with Generators

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

### Shock and Electrocution

The electricity created by generators has the same hazards as normal utility-supplied electricity. It also has some additional hazards because generator users often bypass the safety devices (such as circuit breakers) that are built into electrical systems. The following precautions are provided to reduce shock and electrocution hazards:

- Never attach a generator directly to the electrical system of a structure (home, office, trailer, etc.) unless a qualified electrician has properly installed the generator with a transfer switch. Attaching a generator directly to a building 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 are 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 appropriately rated cords that use heavier gauge wires. Do not overload a generator; this can lead to overheating which can create a fire hazard.
- Use ground fault circuit interrupters (GFCIs), especially where electrical equipment is used in or around wet or damp locations. GFCIs shut off power 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 a generator is properly grounded and the grounding connections are tight. Consult the manufacturer's instructions for proper grounding methods.
  - Keep a generator dry; do not use it in the rain or wet conditions. If needed, protect a generator with a canopy. Never manipulate a generator's electrical components if you are wet or standing in water.
  - Do not 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.

### Carbon Monoxide Poisoning

Carbon monoxide (CO) is a colorless, odorless, toxic gas. Many people have died from CO poisoning because their generator was not adequately ventilated.

# Portable Generator Information Form

## Personal Information

- Name: \_\_\_\_\_
- Address: \_\_\_\_\_
- Contact Phone Number: \_\_\_\_\_
- Email Address: \_\_\_\_\_

## Portable Generator Details

### Type of Portable Generator

- Brand: \_\_\_\_\_
- Model: \_\_\_\_\_
- Fuel Type: Underline or Circle type. (Can be more than one).
  - Gasoline, Diesel, Propane, Natural Gas, Solar
  - Voltage Output: \_\_\_\_\_

### Size and Capacity

- Power Output (Watts): \_\_\_\_\_
- Physical Dimensions:
  - Height: \_\_\_\_\_
  - Width: \_\_\_\_\_
  - Depth: \_\_\_\_\_
- Decibel Level: \_\_\_\_\_

Weight: \_\_\_\_\_

## Usage Information

- What types of appliances/devices will you be using? \_\_\_\_\_
- Estimated duration of use during emergencies: \_\_\_\_\_
- Do you have a working CO detector in your home?    Yes    No



## Additional Comments

- Please provide or attach any additional information related to your portable generator usage that you feel is relevant.
- If using your generator with Natural Gas provide the Contractor name who installed/inspected your gas line hook-up and provide their contractor and license number.
  - Contractor Name -
  - Florida Contractor License –
  - Contact TECO/Peoples Gas at the link below to provide your information regarding gas service with a generator.
    - <https://www.peoplesgas.com/generatorinfo/>

OTHER INFORMATION ABOUT YOUR GENERATOR THAT CAN BE USEFUL IN YOUR SUBMISSION:

I acknowledge that I have read the Portsmouth Portable Generator Rules and Usage Guidelines and agree to abide by the rules and guidelines established therein.

Printed Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_