
THE DANGERS OF CARBON MONOXIDE AND HOW TO AVOID THEM



EVERY YEAR HUNDREDS OF PEOPLE DIE FROM CO POISONING

- PSE&G Responds to over 5,000 CO Calls per year
- 450 People die every year in the United States from CO Poisoning

WHAT IS CARBON MONOXIDE (CO)?

- Colorless, Odorless, Tasteless Toxic Gas produced by incomplete combustion.
- Too much CO can build up in the air if a heating system or chimney is not working properly.
- Malfunctioning heating and cooling appliances, burning charcoal grills indoors, running generators indoors or any other incomplete combustion of fossil fuels indoors can also produce CO.

WHAT IS CARBON MONOXIDE (CO)?

- Homes that are weather proofed to tightly may not give CO a chance to escape.
- CO Poisoning can happen at any time, but is more likely to happen in the fall and winter months.
- Small amounts of CO are not harmful.
- Large amounts of CO can result in Illness or Death.

PAY ATTENTION TO YOUR HEALTH... IT MAY BE YOUR ONLY INDICATOR

- Exposure to CO can cause flu-like symptoms
- Be aware of unexplained illnesses, fatigue muscle pain, upset stomachs, sluggishness, dizziness or headaches.

IF YOU SUSPECT CO, CALL 911!

A CO MONITOR WILL SIGNAL WHEN DANGEROUS CO LEVELS ARE DETECTED

- **Get out of the house immediately, leave doors and windows open.**
- **Ensure everyone else is out, or advise emergency responders of someone still inside.**
- **CALL 911!**
- **MONITORS SHOULD BE PROPERLY INSTALLED**

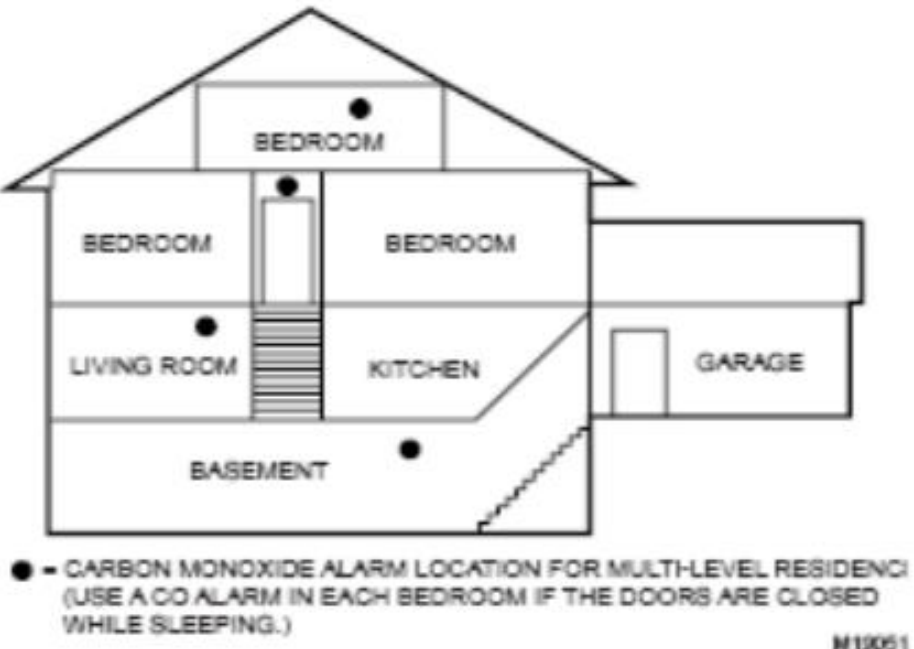


Fig. 2. Multi-level residence CO alarm locations.

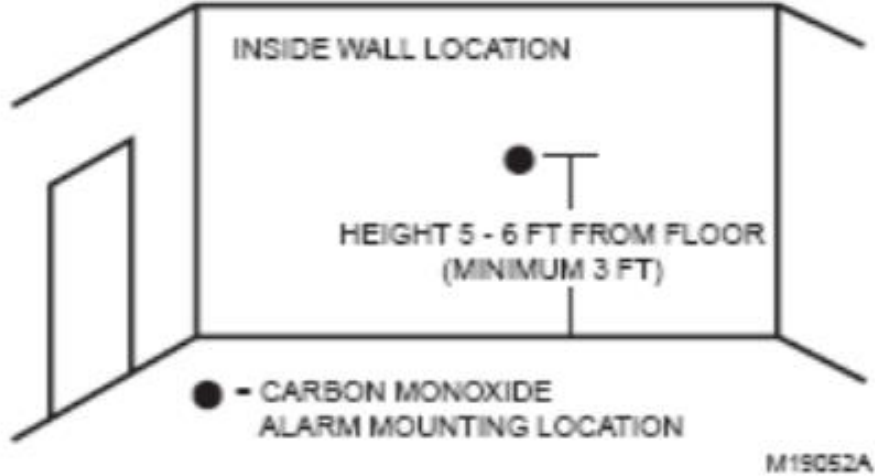


Fig. 3. CO alarm wall mounting location.

CO MONITORS ARE NOT SMOKE ALARMS

- Do NOT take out the batteries or unplug the CO Monitor if it activates.
- Do Not think something is wrong with the CO Monitor
- Remember... Unlike Smoke, CO is Invisible. If a CO Monitor activates it means you and your family are in danger.



GET OUT WHEN THEY GO OFF!

LIFE SAVING SUMMARY

- Understand that CO can kill
- Get and Install CO Monitors
- Hold an annual CO Drill with your family
- GET OUT WHEN THEY GO OFF!
- Call 9-1-1 first then notify PSE&G or your local Gas / Utility Company if you need help

Action levels

- **0 to 9 ppm- Normal**
 - No Action: Typically from multiple potential sources
 - **10 to 35 ppm- Marginal**
 - This level could become problematic
 - Actions: Occupants should leave the building and be advised of a potential health hazard to small children, elderly people and persons suffering from respiratory or heart problems
 - Find source and mitigate/fix **problem**
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Action levels

- **36 to 99 ppm- Excessive: Medical Alert**
 - Conditions must be mitigated
 - Actions: Ask occupants to step outside and query about health symptoms
 - Contact Gas Company and/or Contractor
 - Advise occupants to seek medical attention
 - If occupants exhibit any symptoms of CO poisoning, they should be immediately transported to a medical facility
 - Preferably by ambulance
 - Request proper resources for intervention/mitigation
 - Fire/EMS
 - Gas Company/Contractor
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Action Levels

- **100 - 200 ppm** - When CO levels in this range are found, the service person shall clear the area of all occupants. The area shall be immediately ventilated and the service person shall try to quickly locate the source of the CO. In no instance, however, shall the service person spend more than 15 minutes within the contaminated area.
 - We evacuate the occupants but we are allowed to work for 15 minutes in the range above listed above.
 - **Anything over 200 ppm** we need to leave immediately as well as the occupants, see below.
 - 201 - 400 ppm - The service person shall immediately leave the area, spending only enough time to evacuate all persons within the area.
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Reference

- **3,200 ppm:** Headache, Nausea, and Dizziness After 5-10 Minutes; Collapse and Unconsciousness After 30 Minutes of Exposure
 - **6,400 ppm:** Headache and Dizziness After 1-2 Minutes; Unconsciousness and Danger of Death After 10-15 Minutes of Exposure
 - **12,800 ppm:** Immediate Physiological Effects, Unconsciousness and Danger of Death After 1-3 Minutes of Exposure
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References:

- U.S. Consumer Product Safety Commission Guide, Responding to Residential Carbon Monoxide Emergencies
 - Standard Operating Guidelines from various fire departments throughout N.J.
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FOR MORE INFORMATION...

- [HTTPS://WWW.PSEG.COM/HOME/EDUCATION_SAFETY/SAFETY/CARBON.JSP](https://www.pseg.com/home/education_safety/safety/carbon.jsp)