



# NEMA ISSUE BRIEF

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## ISSUE: Carbon monoxide detectors- Affordable Life Safety Devices

Carbon monoxide gas (CO) is a normal byproduct of burning fuels to heat homes and water; in fireplaces, camp stoves and charcoal grills; and to power gasoline and diesel vehicles, farm equipment, and portable generators. Carbon monoxide is a stealthy, invisible killer. When fuels are burned in confined spaces, or when furnaces or other fossil fuel-fired products are not properly vented to disperse CO to the outside air, deadly consequences often result, as CO readily replaces oxygen in the bloodstream. Those who survive remain at risk for serious chronic health problems, including brain damage, Parkinson's, and cardiovascular diseases.

### IMPORTANCE:

The U.S. Consumer Product Safety Commission (CPSC), the lead federal agency charged with protecting consumers from risks of serious injury, has identified reducing CO poisonings as a strategic goal. The organization warns homeowners to install "a CO alarm in the hallway near the bedrooms in each separate sleeping area." Other eminent bodies with expertise in life safety emphatically endorse the use of CO detectors, including the U.S. Centers for Disease Control (CDC), the *Journal of Emergency Medicine*, and Underwriters Laboratories. According to the CDC, 15,000 Americans seek medical attention or lose at least a day of normal activity every year due to CO poisoning. Carbon monoxide detectors, readily available for modest cost on the market today, are highly effective in reducing exposure by reliably alerting people to the peril. For example, the 2005 *American Journal of Emergency Medicine* study of 911 calls reported that persons with CO detectors were far less likely to become symptomatic. (13 percent were symptomatic vs. 64 percent of those without alarms). The study concluded that "nonfatal carbon monoxide exposures have not decreased and that efforts toward prevention of carbon monoxide poisoning should not be allowed to relax."

The threat from CO poisoning is as diverse as it is widespread. Not all CO poisonings occur among the poor in the northern tier of states in the dead of winter. And not all CO poisonings occur only after power outages from ice storms and hurricanes, although poisonings from misuse of portable generators in confined spaces, even in all-electric homes, represents the fastest-growing source. The CPSC recently required labeling on portable generators as an interim measure to help educate consumers about this invisible peril.

It is estimated that 25 to 35 percent of households have CO detectors. Alaska, Connecticut, Florida, Illinois, Maryland, Minnesota, New Jersey, New York, Rhode Island, Texas, West Virginia, Utah, and Vermont, as well as many municipalities, have enacted CO-detector mandates. These initiatives, resulting in growth in home CO alarm use since 1994, may be a significant reason for a decline in the CO death rate.

### POSITION:

The evidence is compelling. Long-term health costs are significant. Carbon monoxide detectors are cost-effective tools readily available to protect lives. NEMA believes that they should be installed throughout America near sleeping areas in homes, hotels, apartment buildings, care facilities, fraternity houses, and dormitories, as other life-saving devices, such as smoke alarms and seat belts, were mandated in our society decades ago.

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