

# NEMA ISSUE BRIEF

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## ISSUE: Carbon Monoxide Alarms/Detectors—Affordable Life Safety

Carbon monoxide (CO) gas is a normal byproduct of burning fuels to heat homes and water. Common sources of CO include fireplaces, gas appliances, camp stoves, gasoline and diesel vehicles, farm equipment, and portable generators. Carbon monoxide is a stealthy, invisible killer. When fossil 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 CO poisoning 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 poisoning as a top safety goal. CPSC advises homeowners to “install a CO alarm in the hallway near the bedrooms in each separate sleeping area.” Other preeminent entities with expertise in life safety emphatically endorse the use of CO detection and alarm devices, including the U.S. Centers for Disease Control (CDC), the National Fire Protection Association, the International Code Council, the *Journal of Emergency Medicine*, and Underwriters Laboratories. According to CDC, more than 400 people are killed and approximately 20,000 Americans seek medical attention or lose at least a day of normal activity each year as a result of CO poisoning.

The threat from CO poisoning is as diverse as it is widespread. As a “silent killer,” CO makes no distinction in its victims, affecting not just the poor in the northern tier of states in the dead of winter, but those who unknowingly leave cars idling in attached garages, fail to properly maintain their furnaces and gas appliances, or misuse portable generators after power outages. In fact, CO poisonings from improperly vented portable generators, even in all-electric homes, represent the fastest-growing source.

Carbon monoxide alarms and detectors, readily available for modest cost on the market today, are highly effective in reducing exposure by reliably alerting people to the peril of CO. It is estimated that less than 50 percent of households have CO alarms or detectors installed. More than three dozen states, as well as many municipalities, have enacted CO detection installation requirements for homes, apartments, hotels/motels, and other residential occupancies. Information on individual state laws is available at <http://www.lifesafetysolutionsonline.com>. In addition, Connecticut became the first state in 2011 to require CO detection equipment in schools, due to the need to protect children and school personnel from CO dangers when they are away from their homes. These initiatives, resulting in growth in CO alarm and detector use since 1994, may be a significant reason for the decline in the CO death rate.

Legislation (HR 4326/S 3343) has been introduced in Congress to require the CPSC to adopt mandatory product safety rules for CO alarms and detectors, providing additional assurance to consumers that these life-saving devices are reliable and effective. This legislation also will incentivize states to adopt CO installation requirements by establishing a competitive grants program to help offset costs associated with educating the public and installing devices in the homes of low-income families.

## POSITION

NEMA supports state and federal legislative and regulatory efforts to mandate and encourage the installation and use of CO detection devices in residential and commercial occupancies, just as smoke alarms, seat belts, and other life-saving devices were mandated decades ago.

**Contact:** Sarah Owen, [sarah.owen@nema.org](mailto:sarah.owen@nema.org), 703-841-3245

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