



## CARBON MONOXIDE INFORMATION AND TIPS FOR BUSINESS AND BUILDING OWNERS

February 24, 2014

Since the carbon monoxide (CO) poisoning of 28 people and the death of a 55-year-old restaurant manager in New York occurred on February 22<sup>nd</sup>, 2014 many questions have been raised about carbon monoxide requirements, laws, and business owners and operators responsibilities.

In Minnesota all homes, regardless of age, must have carbon monoxide detectors installed and in operable condition. The law went into effect in 2006 for new homes and apartments, 2008 for existing homes and 2009 for existing apartments. This law requires carbon monoxide detectors within 10 feet of every bedroom in the house. This is so the alarms will have a greater chance of waking sleeping residents who need to take immediate action to avoid carbon monoxide poisoning.

Homes are required to have carbon monoxide alarms installed, however many businesses are not required by law to have carbon monoxide alarms installed in their business and/or buildings.

Unfortunately, the incident in New York was not isolated. The day after the tragedy, ten people were sickened at a Maine hotel and a week before that, dozens were evacuated from a Baltimore hotel after deadly levels of carbon monoxide were discovered there.

Many business owners and operators want to keep their employees, customers, clients, and guest's safe at all times. Here is some information and tips to help you prevent carbon monoxide poisoning in your place of business.

### **What Is It?**

Carbon monoxide (CO) is an odorless, colorless gas that interferes with the delivery of oxygen in the blood to the rest of the body.

## **What Are the Major Sources of CO?**

Carbon monoxide is produced as a result of incomplete burning of carbon-containing fuels including coal, wood, charcoal, natural gas, and fuel oil. It can be emitted by combustion sources such as unvented kerosene and gas space heaters, furnaces, woodstoves, gas stoves, fireplaces, water heaters, automobile exhaust from attached garages, and tobacco smoke. Problems can arise as a result of improper installation, maintenance, or inadequate ventilation.

## **What Can Be Done to Prevent CO Poisoning?**

Ensure that appliances are properly adjusted and working to manufacturers' instructions and local building codes.

Obtain annual inspections for heating system, chimneys, and flues and have them cleaned by a qualified technician.

Open flues when fireplaces are in use.

Make sure stoves and heaters are vented to the outside and that exhaust systems do not leak.

Make sure your furnace has adequate intake of outside air.

During and after a snowstorm, make sure vents for the dryer, furnace, stove, and fireplace are clear of snow build-up.

A generator should be used in a well-ventilated location outdoors away from windows, doors and vent openings.

Gas or charcoal grills can produce CO — only use outside.

## **Carbon Monoxide Alarms**

Carbon monoxide (CO) alarms can be used as a backup but not as a replacement for proper use and maintenance of your fuel-burning appliances.

Purchase a single carbon monoxide alarm and avoid purchasing a dual smoke alarm /carbon monoxide alarm.

Purchase a carbon monoxide alarm that can be plugged into an outlet and has battery backup.

Invest in a carbon monoxide alarm with a digital read out.

Carbon monoxide alarms should meet Underwriters Laboratories Inc. standards and have a long-term warranty.

Carbon monoxide alarms should be easily self-tested and reset to ensure proper functioning.

Carbon monoxide alarms should be replaced in 5 to 7 years depending on the manufacturer's instructions.

In homes CO alarms should be within 10 feet of sleeping areas.

In business where employees, customers, clients, and guests are not sleeping the CO alarm should be placed in areas where it will be heard or where employees work, in spaces customers will be occupying, where clients may be waiting for appointments, and where guests will be eating, drinking, getting messages, or other services. Basically if it is an area where people or even animals will be occupying they should be able to hear the CO detector.

Do not make the common mistake of putting the CO alarm next to the potential source of carbon monoxide, for example a CO alarm in a basement by the furnace will not be heard by people in the upper levels of the building.

### **What Are the Health Effects?**

Carbon monoxide interferes with the distribution of oxygen in the blood to the rest of the body. Depending on the amount inhaled, this gas can impede coordination, worsen cardiovascular conditions, and produce fatigue, headache, weakness, confusion, disorientation, nausea, and dizziness. Very high levels can cause death.

The symptoms are sometimes confused with the flu, food poisoning, intoxication, hypothermia, and complications from diabetes to name a few.

NFPA Carbon Monoxide Safety Tips

<https://www.nfpa.org/~media/Files/Safety%20information/Safety%20tip%20sheets/cosafety.pdf>

If you have any questions please contact Kellie Murphy-Ringate at 952-960-1692 or [kmurphyringate@excelsiorfire.org](mailto:kmurphyringate@excelsiorfire.org)

Published: 2-24-2014