Information about Carbon Monoxide & Its Dangers

What is Carbon Monoxide:

- Carbon Monoxide (CO) is a deadly, colorless, odorless, poisonous gas.
- CO is produced by the incomplete burning of various fuels, including coal, wood, charcoal, oil, kerosene, propane, and natural gas. Products and equipment powered by internal combustion engines such as a portable generators, cars, lawn mowers, and power washers also produce CO.

Why is Carbon Monoxide Dangerous?

- Carbon Monoxide is harmful when breathed because it displaces oxygen in the blood and deprives the heart, brain, and other vital organs of oxygen. Large amounts of CO can overcome you in minutes without warning – causing you to lose consciousness and suffocate.
- The effects of carbon monoxide are dependent on both carbon monoxide concentration and length of exposure.
- Carbon monoxide is undetectable by humans.
- Low levels of exposure can be hazardous to children, infants, the unborn, elderly, and those with heart and lung disease.

Symptoms of Carbon Monoxide Poisoning:

- A mild exposure can cause nausea, headache, and symptoms can often be mistaken for common illness such as the flu or cold.
- A medium exposure can cause severe headache, drowsiness, confusion, rapid heart rate, increased respirations and cherry red lips.
- An extreme exposure can cause unconsciousness, convulsions, cardiorespiratory failure, and death.
Causes of Carbon Monoxide Poisoning:

- Carbon Monoxide poisoning can be caused by improper installation, use, and operation of fuel combustion devices.
- Some combustion devices require a vent. Proper size and operation is needed for safe application.
- Fresh or make-up air is needed for complete combustion.

Where to Look for Sources of Carbon Monoxide:

- Furnace connections to chimneys that have rust, corrosion, gaps, holes or obstructions.
- Furnace filters obstructed with dirt or other blockages. Outside venting systems with cracks, corrosion, holes, debris or other blockages.
- Fireplaces with closed, blocked, or bent flues, soot or other debris or animal nests.
- Running automobiles inside of garages even with doors open.
- Use of un-vented kerosene heaters. They are not only illegal but dangerous.
- Fresh make-up air not provided when using any fuel burning appliance or heater.
- Use of liquid fuel construction heaters.
- Cooking on un-vented stoves.
- Entry doors and other openings to attached garages.
- Use of barbecue grills indoors.
- Clothes dryer vents with blockage of lint build-up.

Levels in Homes

- Average levels in homes without gas stoves vary from 0.5 to 5 parts per million (ppm). Levels near properly adjusted gas stoves are often 5 to 15 ppm and those near poorly adjusted stoves may be 30 ppm or higher.
Carbon Monoxide Detectors are required in the Commonwealth of Massachusetts:

- In all places of habitation where fossil fuels are burned.
- They must be placed outside of and within (10) feet of any bedroom door.
- They must be battery operated or plug-in, but plug-in detectors MUST have a battery back-up feature.
- The batteries should be changed each spring & fall when you change your clocks, same as your smoke detector batteries.
- Check with the manufacturer for when detectors should be replaced (minimum 5 years).

Any questions, please call Fire Prevention at: 508-495-2530.