bendbulletin.com

The Bulletin

Keeping homes free of carbon monoxide

Turning up the heat can introduce deadly gas; professional inspections can put minds at ease

By Jordan Novet / *The Bulletin*

Published: December 25. 2010 4:00AM PST

With cold weather gripping the region, Central Oregonians are more likely to turn up the heat at home — with a wood stove, a natural-gas furnace, a space heater or other methods.

In doing so, people can unknowingly introduce carbon monoxide, or CO, into the home. Exposure to enough of the odorless gas can cause death, said Gregg Lande, a senior air quality planner with the state Department of Environmental Quality.

To avoid life-threatening situations, Central Oregonians should at least install a CO monitor at home, if not also request an inspection to find out if the gas is getting caught in the home, said David Farrer, a public health toxicologist in the Oregon Health Authority's Office of Environmental Public Health.

Companies that do home performance inspections, which include testing for the presence of CO, abound in Central Oregon.

Besides checking how much CO is present, certified home performance assessment technicians also figure out if it's possible for the gas to quickly leave once present, said Dave Bowman, an energy technician for the Bend-based contractor GreenSavers USA Inc.

During the part of the assessment devoted to combustion-safety testing, Bowman employs a combustion analyzer, among other tools.

First, Bowman drills a quarter-inch hole in the exhaust flue of a water heater or furnace. He then inserts the probe above the combustion analyzer into the hole, and the device tells him how many parts per million of CO are inside.

Dean Guernsey / The Bulletin

Dave Bowman, an energy technician for GreenSavers, measures carbon monoxide levels near a water heater in a Bend home earlier this month.

and checks how much exhaust gas is traveling up the stack and getting outside.

If the gas is not moving outside efficiently, it can get stuck in the home when fans are used, Bowman said. So he also turns on all fans in the home, creating a depressurized environment, and runs the manometer to see if CO is staying inside, rather than leaving the home. After Bowman is finished using the combustion analyzer and the manometer, he inserts a stainless steel plug in the hole he made in the appliance earlier.

When anything burns, CO can result, Farrer said. A molecule of the gas contains one carbon atom and one oxygen atom. The molecule wants to add another oxygen atom to make carbon dioxide, and hemoglobin, which passes oxygen through the human body, can be a place for the molecule to attain the extra oxygen.

This occurrence can render a red blood cell useless, which requires the body to generate more such cells, Farrer said. In extreme situations, he said, people can lose consciousness and suffocate.

Carbon monoxide has no smell or color. “You don't know that you're getting exposed to it,” Farrer said.

But people can notice its presence by observing a head rush upon standing up, Farrer said. After all, the chemical is heavier than air and sinks to the floor, which is why experts advise people to install CO monitors low to the ground, not up high, where fire detectors should go.

Megan Clark, a market development and support coordinator with Energy Trust of Oregon, said she advises Central Oregonians to buy the CO monitor “that detects the lowest levels of CO that they can afford.”

Jordan Novet can be reached at 541-633-2117 or at jnovet@bendbulletin.com.

Get checked out

www.bendbulletin.com