

January, 2014

PERSONAL HEALTH AND SAFETY OF WOODLAND RESIDENTS

All residents and their homes are vulnerable to the dangers, harm, and destruction by fire, carbon monoxide (CO), smoke resulting from fires and radon gas (a radioactive element causing cancer of the lung). The State of Minnesota places mandates on new home construction and remodeling but in general, no regulations exist for older homes. The City of Woodland has no specific requirements or mandates, but outlines realistic and reasonable recommendations. Action of such is at the discretion and risk tolerance of the resident.

FIRES IN THE HOME: A REAL AND CONSTANT DANGER

If lightning sets the roof on fire, if the furnace explodes or a similar catastrophe occurs, if a smoke alarm alerts you, get yourself and all other occupants IMMEDIATELY out of the house and THEN CALL 911. Many home fires are caused by the resident. These fires begin as a relatively small event which can be contained by the resident IF THE HOUSE IS PROPERLY PREPARED WITH THE APPROPRIATE NUMBER AND PLACEMENT OF FIRE EXTINGUISHERS.

I. Review

After discussion with Kevin Klapprich, Woodland's Fire Chief, it is apparent that fires do happen, occur in Woodland, and often can be limited with the presence of appropriate functioning detectors and extinguishers. In 2013, the fire department received 12 fire calls; 5 were either false alarms or contained and controlled by the resident using an extinguisher or by smothering a grease fire at a stove with a cover or a thick towel placed over the burning pot or skillet. In general this containment constitutes 10-15% of all individual house fires. The doubling time of a house fire (size and intensity) is ONE MINUTE; thus with adequately placed and sized extinguishers and smoke detectors/alarms, containment could be increased to 20-30%. Kitchen fires constitute 40% of these fires, followed by fires in the garage and furnace room. Electrical fires (from frayed wires, or overloaded circuits, extensions cords) constitute 20% of home fires. Four of the 12 calls required the presence and capabilities of a fire truck, and the expertise of the Wayzata volunteer fire fighters who are prompt, very capable, proficient, and dedicated individuals.

II. Fire Extinguisher – Recommendations

Fire Chief Klapprich recommends a minimum of one adequate (the bigger, the better) fire extinguisher (ABC Type) centrally located on each floor of the house (including the basement) with one in the kitchen area within easy reach of the cooking space, but not behind the stove.

III. Smoke Detectors – Recommendation

Smoke detectors generally function as an indicator of fire to the resident while asleep. Minnesota State law mandates one smoke detector in all sleeping rooms, all hallways leading to exits and on each floor for all new construction. The function of detectors should be periodically checked and if energized by batteries, the batteries changed on a regular schedule – two times per year, i.e. whenever you change the clocks, change the batteries. Chief Klapprich recommends compliance with state law for homes built since 2007. For older homes, reasonable protection is constituted by a detector in or immediately outside each bedroom. Smoke detectors and fire extinguishers are available in most hardware stores.

If residents have further questions, Chief Klapprich can be reached by email at kklapprich@wayzata.org or by calling the fire station at 952-404-5337, to leave a message for him so to return your call. The Woodland Council strongly endorses the Chief's recommendations and encourages compliance with State mandates for newer construction.

CARBON MONOXIDE (CO) A SILENT KILLER

I. Review

Carbon monoxide (CO) is an odorless, colorless gas often formed in the process of incomplete or oxygen-starved combustion of organic substances, including fuels. Common sources of CO in homes include fuel-burning devices such as: furnaces and gas space heaters, boilers, gas cooking stoves, water heaters, clothes dryers and fireplaces. Dangerous concentrations develop when fuel-burning devices are not properly vented, operated, maintained or confined by “well-built, non-porous houses”. Fortunately, CO can be detected by inexpensive properly functioning monitors available at most hardware stores.

II. Recommendations

- 1) Know the symptoms of CO poisoning - The first signs of exposure to injurious concentrations of CO include mild headache and breathlessness with moderate exercise. Continued exposure can lead to flu-like symptoms including headaches, dizziness, lethargy, and nausea that may progress to confusion, irritability, and impaired judgment, memory and coordination. CO is called the "silent killer" because if the early signs are ignored, a person may lose consciousness and thus become unable to escape to safety.
- 2) Detect potentially deadly accumulations of CO with the installation of CO alarms in accordance with Minnesota State Law requiring single family homes to have at least one operational CO alarm within 10 feet of every room used for sleeping (see Minnesota Statute, 299F.50). The Woodland Council recommends at least one CO monitor/alarm within 10 feet of all rooms used for sleeping and one CO/gas monitor alarm located in the furnace room.
- 3) Have your fuel-burning appliances checked by a qualified heating contractor each Fall of the year in order to detect problems.

For questions about CO in private homes, or indoor air quality, contact the Indoor Air Unit at health.indoorair@state.mn.us, 651-201-4601 or 800-798-9050.

RADON GAS: A PERNICIOUS ELEMENT IN THE BASEMENT

I. Review

Radon is a radioactive gas which concentrates in the lungs. Radon is the second leading cause of lung cancer in the United States, approximately 21,000 deaths per year. Radon is an odorless, tasteless gas formed from the decay of naturally occurring uranium found in rock and soil throughout Minnesota and in substantial amounts in much of Woodland's soil. The primary source radon exposure for most people is their home where the gas seeps through the structural cracks or gaps in the foundation or through the basement floor. The Minnesota Department of Health (MDH) estimates that one in three homes in Minnesota have levels of radon gas that pose a formidable health risk if exposure is greater than 10 years in duration.

More than 300 Minnesotans succumb each year to death by radon, according to Matt Flory, Health Care Director for the American Cancer Society (ACS). (In order to establish importance by comparison, the annual fatality rate on Minnesota roads caused by motor vehicles is 450 persons)

Owners of existing homes where testing reveals levels of radon over 4 PiC/L should consider installation of ventilation systems for radon mitigation.

II. Recommendation

Homes should be tested for the presence and level of radon once every five years or after undergoing major structural changes. Radon test kits and information can be obtained online at www.mn.radon.com.

For more information on testing, mitigation and new radon-resistant construction, visit www.health.state.mn.us/radon or call the Minnesota Department of Health Indoor Air Unit at 651-201-4601 or 800-798-9050.