Safety Tips for Coal and Wood Burning Stoves

Wood and coal stoves can be warm, comfortable and economical, but they can also be dangerous if used incorrectly. Wood and coal burning have also been responsible for many home heating accidents. Wood stoves, fireplaces, and their chimney assemblies are estimated to account for more than 100,000 residential fires every year, resulting in almost 200 deaths. The dangers associated with this type of heating system are fire and burns resulting from improper installation and creosote buildup.

- Prior to having a wood or coal stove installed, first obtain an installation permit from your local construction official. Then secure the services of a qualified installer. Don't try to do this job yourself!! Wood stove emissions have been proven to cause pollution and sickness. These stoves emit fumes containing carbon monoxide, carbon dioxide and sulfur dioxide which intensify health problems such as sinusitis, headaches and asthma.

- A chimney fire can be a frightening and dangerous experience. A chimney fire may produce loud crackling, rumbling or roaring noises and a red hot stove pipe. These fires can spread to the building itself, causing serious loss and endangering the lives of your family. Chimney fires are caused when CREOSOTE, an oily, black tar that collects on the inside of the chimney and is ignited. Creosote is a gummy, foul smelling, corrosive and inflammable substance that, if no precautions are taken, will coat the insides of everything it passes through. It is formed when volatile gases given off in the burning process combine and condense on their way out of the chimney.

- Use only seasoned hardwoods (elm, maple, oak) instead of softwoods (cedar, fir, pine) in fireplaces or stoves. Hardwoods are better because they burn hotter and form less creosote. Do not use green or wet woods as the primary wood because they make more creosote and smoke. Never burn painted scrap wood or wood treated with preservatives, because they could release highly toxic pollutants, such as arsenic or lead. Plastics, charcoal, and colored paper such as comics, also produce pollutants. Never burn anything in a stove or fireplace that the manufacturer does not recommend!

- Check that the damper is open before lighting the fire. Failure to do so can result in an accumulation of smoke and carbon monoxide within the home. Do not close the damper before the fire has died out and the embers are cold. Some people would put cooled ashes in cardboard boxes, never realizing that embers can stay alive for hours.

- When the air pressure inside the home is less than the air pressure outside, causing combustion by-products to flow back into the room rather than being vented outside. This greatly increases the concentration of combustion pollutants inside your home, which increases your chance of breathing them in. To prevent back drafting, you need to make sure that you have adequate outside ventilation inside your home when using your
fireplace. If you are burning wood, you will usually know there is poor ventilation if you see smoke coming inside the house instead of being vented outside.

- **When** cleaning ashes from stove, store ashes in a non-combustible metal container with a tightly fitted lid. Place the closed container outside. Do not store near combustibles. Do not store under decks. Ashes may stay hot or warm for days. Check to see if ashes are cool before dumping outside or trashing.

- **Don't** burn charcoal in your wood burning fireplace. Only wood should be used.

- **Grates** and screens placed across the front of the fire will prevent errant sparks from igniting your furniture or causing burns. Glass screens are most effective, although wire mesh screens will also work.

- **Install** a chimney cap to keep debris and animals out of the chimney.