

## **WOOD STOVE SAFETY**

### **– keep the home fires burning safely –**

A fire in a wood burning stove is a warm and welcome relief from the temperature outside. Wood burning stoves can be an economical way to supplement your home heating. However, all your plans for a cozy night may go up in smoke if your unit is not properly installed and maintained. Here are some helpful tips and guidelines.

#### **GOOD MAINTENANCE IS THE KEY**

For your wood stove to operate safely and efficiently, the entire solid fuel heating system must be properly maintained. The stove, chimney connectors and joints, chimney flue and chimney must be clean and in good working order. Keep wooden boxes or your wood supply at least five feet from a stove. Put ashes in a covered metal container and keep them outdoors until you dispose of them safely. Wet the ashes before you dispose of them.

#### **PROPER INSTALLATION IS CRITICAL**

Buy a woodstove that is certified by CSA, ULC or Warnock Hersey and labeled accordingly. Have it installed properly and operate it correctly. Follow the instructions precisely to ensure safe installation.

Metal covered insulation flooring under the stove will protect the floor from sparks. Heat from woodstoves installed too close to walls, floors and furniture can dry out the wood around it, causing chemical changes that would make it more flammable. A related fire hazard exists when the flue pipe or chimney is too close to a wooden structure or ceiling.

Your wood stove must be installed by a professional to ensure it is done correctly.

#### **FLUE PIPES**

Each year, inspect flue pipes for rust or other damage and be sure to put tight metal covers on unused openings. Flue pipes from the stove to the chimney must be short, well fitted and supported. Make sure the connections are secure. Never install flue pipes through ceilings, walls or partitions or cross an attic or other closed spaces, as deterioration of pipes could go undetected.

#### **CHIMNEY**

In terms of fire safety, the chimney is the most critical component of a heating system. It must have a proper liner and be in a good state of repair. A chimney designed solely for use with oil and gas heating systems cannot be used for solid fuels. Types of acceptable liners include firebrick, clay, clay tiles, concrete, pumice, cast iron, and rigid and flexible stainless steel. Galvanized liners are not acceptable.

If you use a prefabricated chimney, it must be a ULC approved high temperature type (650 degrees C).

Wherever possible, provide a separate chimney for each stove. If another appliance is connected to the same chimney as the stove, there is a danger that flue gases will be drawn into the house through a second opening under certain weather conditions. Check your Provincial building codes for acceptable combinations.

## **PREPARING FIREWOOD**

Firewood should be split and stacked under cover in early spring to be ready for burning in the fall. When buying firewood, choose wood with large cracks or checks in the grain. Hardwoods e.g. maple and softwoods e.g. pine are similar chemically—the difference is density. As hardwoods are denser, they produce a longer-lasting fire. Wood should be clean, untreated and unpainted. Burn well-seasoned wood only. Green wood may create a serious creosote problem and a potential fire hazard. Do not burn newspaper, wrapping paper, household waste or any other similar material in your wood stove. Do not burn chemical logs in your woodstove. Never use gasoline, kerosene, charcoal starter or similar liquid to start a fire.

## **SIGNS OF A GOOD OPERATION**

While it looks easy, there is more to running a woodstove than using wood and a match.

Here are some tips on how you can tell if your woodstove is running as it should, as well as some advice on installation:

- if there are no flames, something is wrong. When wood burns it should be flaming until only charcoal remains
- if your firebox has firebricks, they should be tan in colour, never black
- the steel parts of the firebox should be light to dark brown, never black or shiny
- you should expect instant ignition of a new load of wood—the bottom pieces should be flaming by the time the door is closed
- the exhaust coming from the top of the chimney should be clear or white. Blue or grey smoke indicates smoldering and possibly low system operating temperatures

## **UNDERSTANDING COMBUSTION**

Unlike a furnace, the heat output from a wood stove is not perfectly steady. Wood burns in firing cycles. Each cycle should provide between four and eight hours of heating. Adjust the amount of wood used for each cycle so that only enough coals are left to ignite the next load. As firewood burns, three byproducts are created (water, smoke and charcoal), forming creosote.

## **CREOSOTE**

When wood burns slowly, it produces water, smoke and charcoal which condense to form creosote in the chimney. Creosote accumulates on the flue lining and seeps into any cracks in the chimney. When ignited, creosote makes an extremely hot fire. Check the pipes and chimney regularly and clean if it exceeds ¼ inch thick. Have a qualified chimney sweep clean the chimney.

## **SPARKS**

Sparks from the chimney are a serious fire hazard, either to the roof of your dwelling, to a neighboring dwelling or to vegetation around your dwelling. You should regularly watch your chimney at night to see if sparks are being allowed to escape. If you have sparks escaping, your wood burning device needs attention and you should call a professional to correct any deficiencies that exist.

**This information is intended only as a guide. For specific instructions, check with the stove manufacturer or a wood appliance dealer.**

**This material is provided for informational purposes only. The provisions of your policy prevail. Please read your policy in detail and consult your broker if you have any questions.**