

ASK THE INSPECTOR COLUMN FOR SEPTEMBER 16, 2015
HEADLINE: WOOD STOVES 101

As we struggled through yet another heatwave, recently, winter seemed far off, but we all know it is coming. Where do woodstoves fit when one is looking for an energy efficient heating system; one that acts as a backup or one that is a localized heat source, like in a basement, is a question that has come up over the years.

Wood stoves have actually made major strides in their efficiency over the past 10 years. When a new wood stove enters the marketplace, certification as low-emission by the U.S. Environmental Protection Agency (EPA) is required. These standards are accepted in Canada. In the US, they have introduced a program called "Burn Wise and they have an excellent web site www.epa.gov/burnwise. This site allows our American neighbours to click on their state and find out the applicable wood burning regulations.

The EPA also sets standards for air toxins and particle pollution. Particularly in the midwest and mountain states, regulations regarding emissions have been in place for quite a number of years. These standards can result in a considerable reduction in creosote build-up, which is the number one cause of chimney fires. I can remember some years ago in the ski district of Colorado where the air quality in the winter was so poor that the region regulated wood stove operation and required them to be shut down in a couple of cases. In a lot of cases the stove itself was not to blame. Rather, it was the level of dryness in the wood and the actual lack of attention and knowledge by the operator.

Here at home we have one of the most recognized standard associations in the world governing wood stoves...CSA. Their B415-1 and B365 for uncertified stoves is the recognized standard in this country. We also have a recognized training and inspection program called Wood Energy Technical Training or WETT, as it is known. They have an excellent web site at: www.wettinc.ca. WETT certification program is operated by a non-profit organization that is recognized by the Insurance Industry and the government as the standard for installation and cleaning of wood burning appliances. In Quebec go to: www.poelesfoyers.ca.

My first suggestion is to talk to a certified installer. A qualified WETT technician will guide you through the sizing of your stove, the different makes and models and their use. I often see inexpensive wood stoves sold at bargain prices with little customer support behind them. This is an installation where it sometimes pays to deal with a retailer who has WETT technicians on staff if you do not have one you know and trust. Proper sizing is very important, as is the location in the home. I often see a wood stove operating in the corner of a basement room, improperly installed and the room is 30.C or better. All the labour to cut the wood and operate the stove is practically wasted.

Number two on the list is the chimney. If you have a brick or block chimney that is not in use, it may have another life. This chimney will usually have to be lined and a WETT technician should be called to inspect it, first to evaluate and estimate the costs of a stainless steel liner, then to make any necessary repairs to the actual chimney. The most popular chimney is the insulated metal type. These are sections of double wall metal

pipng that has an insulation installed to separate the interior liner. They can be installed most everywhere, even through the interior of your home, if need be. Again your WETT technician should get involved. He will also advise you upon proper clearances from combustibile materials such as wood. There are minimum clearance regulations for the actual stove and each stove has its own set of standards depending upon whether it is a corner or wall installation, for example. When buying a new wood stove or chimney, look for the CSA or ULC seal and check the EPA rating on the stove, if available.

No matter how efficient your stove is, unless you operate it correctly you will not get the full benefits and you will waste the sweat you produced cutting, stacking and carrying it in to the stove. Your wood should be dry, at minimum 4-6 months, correctly piled in the outdoors. Do not store large amounts of wood inside your home. The amount of moisture the wood emits as it dries out can have an adverse affect on the air quality. Introduction of wood insects to the home is another negative. Bring in enough wood to last you a couple of days. Seasoned wood burns hotter and more efficiently. Wet wood can have upwards of 50% or better water content and, if used in the wood stove, the water must be boiled out of the wood before it will properly burn. Keep the home fires burning is a popular saying and it holds truth. Smaller, hotter fires that emit little smoke will release more heat and reduce the build-up of creosote in your chimney.

My last two suggestions; install a carbon monoxide detector in the room with the wood stove and test it regularly. Lastly, have your stove and chimney cleaned and inspected annually by a WETT certified sweep. If you want more information on WETT call them at 1-888-358-9388.

With nearly a third of Canadian homes using wood heat as a primary or secondary system, proper operation and installation is important. All of the home insurance companies now demand a wood stove that is CSA/EPA certified. Last year, over 1000 homes in Canada had a fire related to a wood appliance; most often it was the chimney that was the issue. With care, wood stoves can be an efficient from of heat.

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