

## The Safety Implications of Inefficient Wood Heat

Every year thousands of Canadians safely heat their homes with wood. Unfortunately, some homes are lost to fires caused by poor operation and maintenance of home heating equipment. Although wood heat is an economical and renewable heat source, poor wood-burning practices can cause dangerous and devastating home and chimney fires.

The "Burn it Smart!" campaign encourages Canadians to burn wood safely by taking a few simple precautions.

#### Creosote – The Primary Cause of Chimney Fires

Burn the smoke in the stove instead of letting it rise through the chimney. Wood smoke is unburned fuel that can be deposited as creosote in the chimney, providing the perfect fuel for a dangerous chimney fire. As part of the "Burn it Smart!" campaign, consumers are being asked to:

<sup>(®)</sup> Burn smaller, hotter fires. Never load your stove and let wood smoulder.

Burn clean, well-seasoned wood that has been split and dried properly. Seasoned wood lights faster, burns better and produces less smoke than "green" wood – a major culprit in creosote production.

Never burn driftwood, particleboard, plywood or any other painted or treated wood. These release toxic chemicals when burned and can contribute to creosote buildup.

Never burn garbage in your wood stove. Besides being a dangerous fire hazard, burning garbage emits poisons.

### **Fire Prevention Tips**

- The best way to start a fire is to use newspaper and dry kindling. Gasoline, kerosene or charcoal starters are dangerous and should never be used to start a fire in a stove or fireplace.
- Ashes should be regularly removed from a stove or fireplace. Because the sparks in hot ashes can easily start fires, ashes should be stored in a covered metal container in a safe area away from the house.

Maintain proper clearances from combustibles. Household items such as drapes, furniture, newspapers and books should be kept a safe distance from the heat and stray sparks of a wood stove or fireplace.

Enjoy the fire, not the smoke







#### Detection Devices Save Lives

Canadians who heat with wood should install smoke alarms as required by the *National Fire Code of Canada*. Consideration should be given to keeping a fire extinguisher nearby and installing a carbon monoxide detector. A home where the wood stove or fireplace is properly installed should not have the smell of smoke indoors. The smell of smoke typically means that the system isn't venting properly – a block in the chimney, a faulty damper or competition with a range hood could be the cause. Not only are these fire hazards, they could also lead to deadly carbon monoxide poisoning.

A stovepipe thermometer is recommended to make sure that a wood stove is operating at the right temperature.

### **High-Efficiency Stoves**

New models of wood stoves, fireplaces and fireplace inserts feature improved safety and efficiency. The best choices are appliances that are labelled for safety by recognized testing and certification agencies. They should also be certified as low-emission to the standards developed by the U.S. Environmental Protection Agency (EPA) and which is accepted in Canada. When used properly, new, certified wood-burning appliances burn so efficiently that they produce virtually no smoke. This means almost no creosote (up to a 90 percent reduction), making them much safer than conventional models. Older, uncertified stoves and fireplaces release 40 to 80 grams of smoke per hour; the new EPAcertified stoves produce only 2 to 5 grams of smoke per hour. Increased efficiency also means that they burn up to a third less wood, which means savings in labour and costs.

# Installation, Inspection and Maintenance

Regardless of the type of wood-burning appliance a consumer purchases, it should be professionally installed and inspected and cleaned at least once a year by a technician certified under the Wood Energy Technical Training (WETT) Program or, in Quebec, by the Association des professionnels du chauffage (APC). These certified installers and chimney sweeps have gone through a rigorous training program that is recognized by the industry and by government.

