EPA’s Wood-burning appliance “TIP” sheet

As temperatures drop, many look to fireplaces and wood-burning appliances for the toasty warmth they provide. To protect your home, health and the air we breathe, the Environmental Protection Agency (EPA) offers the following “Best Burn Practices” tip sheet. Please take a look.

Practical Tips for Building a Fire

Building an effective fire requires good firewood (using the right wood in the right amount) and good fire building practices. So once your wood-burning appliance is properly installed, the following practical steps will help you obtain the best efficiency from your wood stove or fireplace.

• Season wood outdoors through the summer for at least 6 months before burning it. Properly seasoned wood is darker, has cracks in the end grain, and sounds hollow when smacked against another piece of wood.
• Wood burns best when the moisture content is less than 20 percent. Use a wood moisture meter to test the moisture content of your wood.
• Store wood outdoors, stacked off the ground with the top covered.
• Burn only dry, well-seasoned wood that has been split properly.
• Start fires with newspaper and dry kindling or consider having a professional install a natural gas or propane log lighter in your open fireplace.
• Burn hot fires.
• Maintain proper airflow. Remove ashes from your wood-burning appliance; place in a covered metal container; store outdoors.

Safe Wood-burning Practices

To ensure safety, follow these guidelines for safe operation of your qualified and properly installed wood-burning appliance:

• Keep all flammable household items—drapes furniture, newspapers, and books—far away from the appliance.
• Start fires only with newspaper and dry kindling, never with gasoline, kerosene, charcoal starter, or a propane torch.
• Do not use logs made from wax and sawdust in your wood stove or fireplace insert—they are made for open hearth fireplaces. If you use manufactured logs, choose those made from 100 percent compressed sawdust.
• Build hot fires. For most appliances, a smoldering fire is not a safe or efficient fire.
• Keep the doors of your wood-burning appliance closed unless loading or stoking the live fire. Harmful chemicals, like carbon monoxide, can be released into your home.
• Regularly remove ashes from your wood-burning appliance into a metal container with a cover. Store the container of ashes outdoors on a cement or brick slab (not on a wood deck or near wood).
• Keep a fire extinguisher handy.
• Before you burn, remember to check your local air quality forecast.
Items You Should Never Burn

- Household garbage or cardboard, plastics, foam and the colored ink on magazines, boxes, and wrappers produce harmful chemicals when burned. They may also damage your wood-burning appliance.
- Coated, painted, or pressure-treated wood releases toxic chemicals when burned.  
- Ocean driftwood, plywood, particle board, or any wood with glue on or in it, all release toxic chemicals when burned.  
- Never burn wet, green (unseasoned), rotted, diseased, or moldy wood.

Install and Maintain a Smoke Alarm

Each year in the United States, about 3,000 people lose their lives in residential fires – and mostly from inhalation of smoke and toxic gases, not as a result of burns. Properly installed and maintained smoke alarms in the home are considered one of the best and least expensive means of providing an early warning of a potentially deadly fire.

If you burn wood in your home, even occasionally, EPA recommends you install a smoke alarm to alert you and your family, in the event of a fire. To be effective, smoke alarms must be in the proper location and tested regularly. Batteries should be replaced regularly, too. More information is available from FireSafety.gov.

Install and Maintain a Carbon Monoxide Detector

When wood is not burned completely, the resulting smoke contains a number of chemicals, one of which is carbon monoxide (CO).

CO is odorless and colorless. Exposure to it reduces your blood’s ability to carry oxygen. According to the U.S. Consumer Product Safety Commission, more than 150 people die on average per year from CO poisoning, related to the use of combustion appliances, including wood stoves, in the home.

EPA recommends installing a digital CO detector if you use a wood stove or fireplace in your home. A digital detector displays the concentration of CO parts per million (ppm) and makes a warning sound that gets louder as the concentration increases. For information about CO detectors and preventing CO poisoning, visit EPA's Indoor Air Publication "Protect Your Family and Yourself from Carbon Monoxide Poisoning."

Money Saving Tips

Look into getting your name on a list with local tree cutters who will deliver wood to your home. You may end up with discounted firewood. Plus, this saves the tree cutters from traveling to the landfill and paying dumping fees. It also reduces landfill dumping.

Reduce overall heating needs and heating bills by improving the insulation in your home. Caulk around windows, doors, and pipes to seal air gaps. Add weather-stripping to doors and windows. EPA's ENERGY STAR Home Improvement provides information on home sealing.

There are also federal tax credits that may apply. For more information, visit the EPA's Energy Star web site to learn about a possible $300 tax credit for the purchase of a wood or pellet stove.

The EPA's mission is to protect human health and the environment. Visit www.epa.gov to learn more. And stay safe.