Helpful Hints for Home Heating With Wood

Focus on Cleaner Wood Burning

Heating with Wood: Keep it Clean

We take pride in our quality of life in Washington, and we all want to protect and preserve the environment. But many of the things we do contribute to air pollution, including driving cars, burning yard waste, and using wood stoves and fireplaces. Wood smoke is one of the main sources of air pollution in Washington.

WHY IT MATTERS

In winter, more than half of Washington's fine particle air pollution comes from home wood burning devices such as wood stoves and fireplaces. They put out hundreds of times more air pollution than other sources of heat such as natural gas or electricity.

Much like cigarette smoke, wood smoke contains hundreds of air pollutants that can cause cancer and other health problems.

If you use a wood stove or fireplace, consider replacing it with a cleaner form of heat such as gas or electricity. If you heat with wood, use the tips in this document to help reduce smoke. Less smoke means cleaner air for all of us to breathe. And the less smoke you produce, the more heat and value you get from your wood.

How to "burn clean"

With most other heating systems, everything is pre-set. With wood heat, everything is in your control: fuel, efficiency and the amount of pollution. A wood fire needs your attention for good management.

The fuel: Keep it dry!

Wood can seem dry yet still contain up to 50 percent water! Moist wood makes the fire give off more smoke. On the other hand, dry wood can provide up to ***44 percent more heat than*** wet wood. Two things work very well to ensure your wood is dry enough: ***time and cover***. Follow these tips to get it fire-ready:

- ✓ Split it. The wood will dry best and burn most efficiently if the pieces are 3 ½ to 6 inches in diameter.
- ✓ Cover it. Protect the wood from rain and weather. Stack it loosely-- in layers of alternating directions-- to allow plenty of air circulation. Store it at least six inches off the ground. Old pallets make a great base, but don't burn them. Burn only clean dry natural vegetation.
- ✓ Give it a year. Storing split wood, under cover for at least one year usually meets the dryness requirement.
- ✓ If you use dry fuel, the right equipment, and give your fire the right amount of air, there should be no visible smoke from your chimney or stove pipe -- only heat waves.

The fuel: Keep it legal!

Legal fuels are:

- Dry, untreated wood.
- Manufactured logs (pressed sawdust or sawdust/wax). Follow the product instructions and your stove owner's manual. Use as little paper as possible, ONLY to start a fire.

Illegal fuels are:

- ✓ Garbage (including diapers).
- ✓ Plastic or rubber products.
- ✓ Treated wood (including particle or strand board).
- ✓ Asphalt-based or waste petroleum products.
- ✓ Paints and chemicals.
- ✓ Animal carcasses.
- ✓ Paper, when not being used to start the fire. Never burn magazines, newsprint or cardboard.
- ✓ Anything which emits thick dark smoke or obnoxious odors.

Burn bans: A last resort

Sometimes, even "cleaner burning" is not enough. Most of the air pollution in Yakima County during the fall and winter comes from burning wood. The combination of weather patterns and high population causes too much wood smoke to build up in the air. When this happens a health–related burn ban is called to protect public health. During a health–related burn ban, you are not allowed to use your wood stove, fireplace, or other wood burning home heating device (unless you have no other way to heat your home) until air quality improves

The Fire: Give it Air!

The right amount of air gives you a hotter fire. That means you get more heat from your wood. Smoke means wasted money in unburned wood up the chimney. Here are some tips for cleaner burning:

- ✓ Build small, hot fires. Don't add too much fuel at one time.
- ✓ Step outside and check the chimney or flue. If you can see smoke, your fire may need more air.
- ✓ Read and follow the stove manufacturer's instructions.
- ✓ Don't burn in moderate temperatures. (You'll want to damper down, which causes more pollution and wastes wood.)
- ✓ Don't "bank" the stove full of wood and damper down the air supply. This wastes wood, produces more air pollution, causes more creosote to form (which can lead to chimney fires), and yields much less heat. Half-full is adequate; it provides enough air space for efficient combustion.
- ✓ Make sure your stove is the right size for your home. Too large a stove will overheat your home, encouraging you to damper down, creating more smoke.
- ✓ Don't damper down too far. Allow enough air to reach the wood. This amount varies among types of stoves.

Certified is Cleaner!

Your stove makes a difference when it comes to air pollution. Use a woodstove that has been certified in Washington, is the right size for your home, and has been properly installed. To find out if a stove is certified, look for a small metal plate on the stove back or inside the door reading "EPA Certified".

Many older stoves are uncertified. Don't install a used stove without first making certain that it is certified. *It is illegal to install uncertified stoves in Washington.* Compared with new, properly operating certified models, *uncertified stoves*:

- ✓ Produce about five times more pollution than certified models.
- ✓ Use about a third more wood.
- ✓ Clog your chimney with creosote, making frequent cleaning necessary for safe operation of the stove.

If all wood heat users operated certified wood burning devices, burned only dry wood, and obeyed wood burning regulations, health burn bans would be less frequent and we'd all breathe more easily during the winter.