Tips for good fuel

- Firewood should be cut, split and stacked in an open area in the early spring to be ready for burning the next heating season. Very hard woods like oak may take longer to season, and seasoning firewood in damp maritime climates may take a little longer than the summer months.
- The firewood pieces should be cut to a consistent length, about 75 mm (3 inches) shorter than the largest horizontal firebox measurement.
- Firewood should be split into a variety of sizes, ranging from about 75 mm (3 inches) to no more than 150 mm (6 inches) across the largest cross sectional dimension.
- To properly season, stack the firewood on rails or poles to raise it slightly off the ground. Separate the rows by at least a pace or two to allow air circulation to carry away the moisture.
- Any wood species can be burned, although some are less desirable because they are hard to split or have sticky sap in their bark.

Do Not Burn:

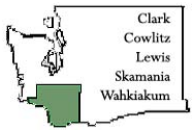
(According to WAC 173-433-120)

- Garbage of any kind
- Treated, painted, or coated wood
- Animal carcasses
- Plastics and rubber products
- Railroad ties, asphalt products
- Plywood, particle board, scrap lumber and pallets **cannot** be burned even if the pieces are not painted or coated.

Tips for smoke-free fires

A good wood fire doesn't produce much smoke because the tarry droplets and gases that would become smoke are burned before they leave the firebox. The easiest way to achieve smoke-free fires is to use an advanced combustion stove like those certified by the Washington State Department of Ecology. But even if you don't have a clean burning stove, furnace or fireplace you can still achieve opacity of less than 10%. Here are some things you can do to reduce the smoke from your fires.

- Burn only seasoned wood. Wet wood makes smoky fires.
- Burn the wood in cycles. A cycle starts with loading some wood on a bed of wood coals or embers and ends when about the same size charcoal bed remains. Don't expect perfectly steady heat output. In most appliances, the wood burns best in cycles.
- Make sure that each load of wood flames brightly until it is reduced to a coal bed. Never let a fire smolder.
- In mild weather, split your wood smaller and build smaller fires using at least three, and preferably five or six small pieces. One or two large pieces of wood in the firebox will smolder.
- Gauge your progress by checking your chimney. If there is smoke, something is wrong.



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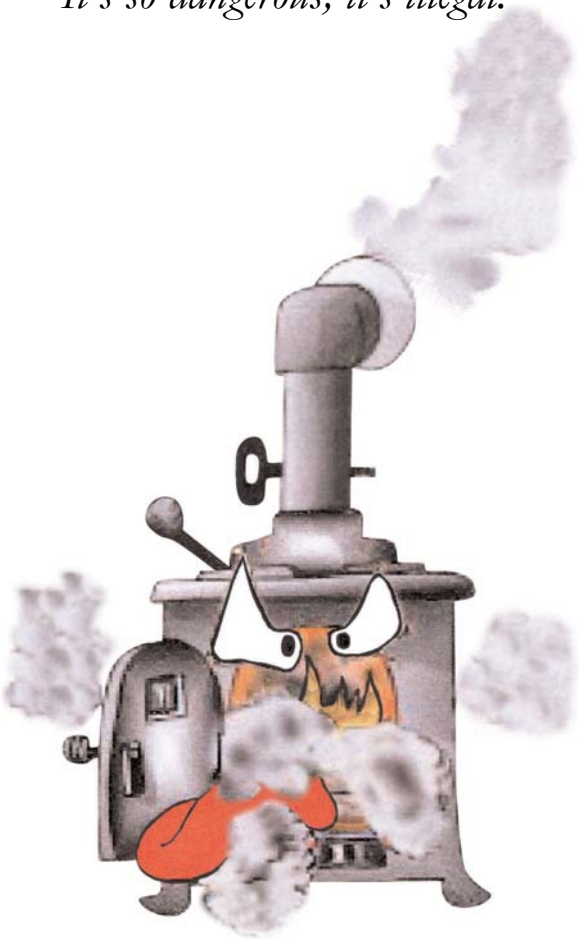
When You Burn Garbage In Your Fireplace or Woodstove, You Make Poison.

It's so dangerous, it's illegal.



Are you tempted to burn some household garbage in your wood-burning stove, furnace or fireplace? Do you think burning it might be better than burying it in a landfill site?

In fact, it is not. While it may seem harmless enough, burning garbage is damaging to the environment, to your family's and your community's health, and to your wood burning system.

A toxic cocktail

Did you know… That two households burning their garbage emit more cancer causing substances than a state-of-the-art municipal solid waste incinerator burning 200 tons of garbage!

Burning garbage produces unpredictable results because, unlike seasoned firewood, garbage contains a whole range of materials and chemicals that react when burned together. For example, household garbage contains various forms of paper and plastics. When paper and plastics are burned, you don't really destroy them, you just change their chemical form. The inks and dyes used for the coloring and printing of paper and plastics add to the chemical cocktail that is emitted when they are burned. The problem with burning any kind of garbage is that you just don't know what the resulting pollutants will be. One of the pollutants that results when paper and plastics are burned in a wood stove is dioxin, a highly toxic chemical that doesn't decompose and which builds up in the tissues of animals and humans.

Information for this brochure provided by the Southwest Clean Air Agency and the Wood Heat Organization, www.woodheat.org.

Airborne dioxin settles in soils and on vegetation, some of which may then be eaten by livestock. Dioxin builds up in fats in the body and is concentrated in cows' milk and even in human mother's milk. **According to a World Health Organization fact sheet,**

> *"Once dioxins have entered the environment or body, they are there to stay due to their uncanny ability to dissolve in fats and to their rock-solid chemical stability."*

Certain kinds of toxic substances, including dioxin, can be destroyed using industrial-scale incinerators, but at the lower temperatures found in residential wood burners, dioxins and other pollutants are created, not destroyed. The dioxin produced in wood stoves when garbage is burned is not just emitted with the exhaust, but is also concentrated in the residual ashes. However that ash is disposed of, its toxic legacy will remain.

Damage to your stove, fireplace or furnace

All modern wood stoves and furnaces are independently safety tested and certified to ensure that when properly installed and used they will work well and not be hazardous. This testing does not involve fuels other than wood. As a result, none of the safety features, instructions or clearances provided by manufacturers are valid if the stove is used as an incinerator. Wood stoves, fireplaces and furnaces are designed and safety certified to burn clean, dry, uncoated, untreated wood, and just enough plain newspaper to get fires started.

Advanced wood stoves that use catalytic combustors to reduce smoke emissions are particularly sensitive to fuel quality. Their performance can be ruined if garbage is burned because the resulting vapors coat the catalyst and prevent it from functioning properly. The chemical cocktail produced when garbage is burned can attack stove parts and cause corrosion and other damage that might cause the stove to exceed Washington standards for smoke emissions, particulate and opacity.

Even if burning garbage was not bad for the environment and bad for your wood burning equipment, it would still not be a good fuel because it makes very little heat and the large amount of resulting ash clogs up the firebox.

Don't burn, recycle

Recycling facilities and garbage sorting at landfill sites have improved dramatically in the past decade. Now, most forms of paper and plastic can be recycled. Recycling is far kinder to the environment than burning because it avoids localized air pollution and reduces the consumption of resources for new products.

One of the best ways to cut your garbage output is to reduce the amount of packaging you buy. Food preparation is one of the biggest sources of household garbage. Generally, the more processed the food, the more packaging it has around it. Buying less processed food is a good way to cut down on the amount of garbage your household creates. By reducing the packaging you buy, recycling as much waste as you can and burning only clean, untreated wood, your household can contribute to a healthier environment.

It is a violation of Washington State law (WAC 173-433-130) to impact your neighbors with smoke, odor or ash.

For more information on Washington State regulations for solid fuel burning devices, WAC 173-433, go to http://www.swcleanair.org/Regulations.html