

With recurring concerns about the high cost of energy, many people heat their homes with firewood and pellets. Wood is abundant, renewable, and relatively inexpensive and can even keep a house warm when the power goes out.

On a chilly evening, there is nothing more relaxing than gathering around a warm, cozy fire that radiates rich, soothing heat. But particularly for areas with air quality concerns, like the Wasatch Front and Cache Valley in Utah, residents should burn responsibly – which means using dry, seasoned wood in a low-emission hearth product.

For more than two decades, the stove industry has been an advocate for clean air and clean burning. The industry has been creating and manufacturing wood burning products that emit up to 90% less smoke compared to wood burners produced decades ago. Despite cleaner technologies, most wood fires are still built in traditional open fireplaces or older uncertified wood stoves and fireplace inserts manufactured and installed before 1992. Burning wood in these older wood heaters can produce significantly more smoke and pollute the air outdoors and inside the home.

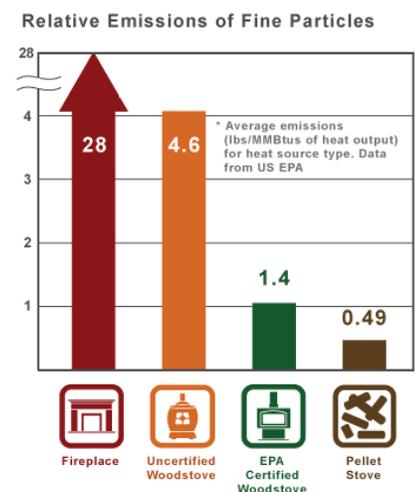
Utah Considers Total Ban on Burning

On some winter days, the air along the Wasatch Front and in the Cache Valley violates the federal air quality standard for fine particulates. The meteorological phenomenon known as an “inversion” is to blame. Cold air settles between the mountain ranges, and without a storm or a strong wind, the air gets stuck. The Utah Department of Environmental Quality estimates that wood smoke is approximately 5% of this problem. Even if burning is completely banned, it won’t solve the valley’s brown cloud.

Notwithstanding this modest contribution from wood smoke, Utah’s Governor Gary Herbert has proposed a new regulation prohibiting the burning of all wood during Utah’s inversion season, including burning wood in low-emission hearth products certified by the U.S. Environmental Protection Agency (EPA). It would apply to all or part of Salt Lake, Davis, Utah, Tooele, Box Elder, Cache and Weber Counties. The proposed wood burning ban would not only outlaw wood burning during extremely bad air quality days, but also would outlaw all burning in these counties, during the winter, even when there is no inversion.

Our Position: Encourage Responsible Burning

All Utahns want clean air, but we believe the Governor’s proposed ban on all burning will not deliver that result and will instead punish those citizens who have invested in newer, cleaner-burning stoves. This ban will be a disincentive for people to upgrade to more environmentally responsible hearth products. Many other western communities have improved air quality and preserved homeowner rights to heat with wood or pellets by encouraging upgrades to cleaner technology.



Exempting low-emission stoves and inserts from the first stage of a burn ban is a common-sense solution for cleaning the air and preserving basic freedoms.

Utah needs to do what almost all other western communities do in the winter: institute a mandatory two-stage burn program. Many large metropolitan areas like Seattle, Denver, Albuquerque, and Fresno have some version of this program. During Stage One, when an inversion first starts, local residents are required to stop using all open fireplaces and older uncertified wood stoves, but EPA-certified stoves and pellet stoves and masonry heaters may still be used as long as they emit no visible smoke. If the inversion lasts for several days and persists, then officials may declare Stage Two and restrict the use of even EPA-certified stoves and other cleaner burning devices.

Cleaner Alternatives for Responsible Burning

Breathing clean air and burning wood responsibly to keep warm is important to many Utahns. The state can better meet the needs of all people by encouraging increased use of low-emission hearth products that give off up to 90% less pollution than older technology. These options include:



EPA-Certified Wood Stoves and Fireplace Inserts.

All wood stoves and wood fireplace inserts manufactured and sold today in the United States are required to meet strict emissions standards certified by the Environmental Protection Agency (EPA). To meet this standard, stoves must prove emissions of less than 7.5 grams of particulate matter per hour. All EPA-certified wood stoves and fireplace inserts have a permanent label on the back that attests to compliance with the standard.

Pellet Stoves and Fireplace Inserts.

Pellet stoves and pellet fireplace inserts burn wood pellets made from recycled sawdust and are the lowest emission wood burners available. Because of their very low emissions, pellet stoves and pellet fireplace inserts are exempt from EPA certification.



Masonry Heaters.

Masonry heaters are high performance, very clean burning and substantially-sized wood burners that produce a tremendous amount of heat. Similar to pellet appliances, masonry heaters are exempt from EPA certification.



How New Technology Reduces Wood Smoke

Traditional fireplaces and old wood stoves and fireplace inserts smoke excessively because they do not achieve complete combustion, which includes burning the smoke. Smoke is essentially unburned fuel. For wood to burn completely, the right environment must exist, including the proper mix of fuel, oxygen and heat. Wood burning hearth products now include technology that creates an optimum burning environment and essentially burns the smoke away.

There are two types of EPA-certified wood stoves and fireplace inserts: catalytic and non-catalytic. Catalytic wood stoves and fireplace inserts have honeycombed chambers coated with a metal catalyst – usually platinum or palladium – that works to increase the rate of combustion. The catalytic combustor burns away gases and particulate that would normally be emitted into the air. Catalytic wood stoves provide the ability for people to burn wood at lower temperatures for longer periods of time. With non-catalytic wood stoves, combustion occurs in the firebox. These stoves are generally less expensive than catalytic wood stoves and require less maintenance.

Frequently Asked Questions

Why is Utah considering a ban on wood and pellet burning during winter months?

On some winter days, the air along the Wasatch Front, and in some outlying counties, violates the federal air quality standard for fine particulates. This type of problem is actually quite common in western communities from El Paso and Denver to Seattle and Los Angeles. It is a function of strong temperature inversions that trap the air from human activities such as vehicle traffic, factories, and refineries. The Utah Department of Environmental Quality estimates that wood smoke contributes approximately 5% of this wintertime problem.

How would the proposed wood burning ban differ from current no-burn days?

Governor Gary Herbert has proposed a new regulation prohibiting the burning of all wood during Utah's inversion season, including burning wood in low-emission hearth products certified by the U.S. Environmental Protection Agency (EPA).

Currently, when air quality in Wasatch Front communities begins to worsen, air quality regulators will declare a "voluntary no-burn period." If an inversion fails to break up and the level of fine particulates increases to a specified threshold, they will institute a "mandatory no-burn period." The current program doesn't differentiate between new EPA stoves and old uncertified wood stoves and fireplaces, regardless of whether it's a voluntary or mandatory day. Last year, Salt Lake and Davis counties had 18 voluntary no-burn days and 31 mandatory no-burn days. However under the Governor's proposal, there would be no burning from November 1st through March 15th. This ban would be the equivalent to 135 consecutive days of "mandatory no burn period" restrictions for all solid fuel appliances (i.e. fireplaces, pellet stoves and wood stoves, including EPA-certified appliances) regardless of the weather or air quality.

Are there proposed exemptions for EPA-certified and pellet-fueled appliances?

No, the current proposal would not differentiate

between solid fuel appliances (i.e. fireplaces, pellet stoves and wood stoves) regardless of how clean and efficient the appliance is. These restrictions also would remain in effect for 135 consecutive days, regardless of wind, snow, weather and inversion conditions.

Is there a better alternative than the Department of Environmental Quality's current proposal for a complete ban on wood and pellet burning?

Yes. Utah should change to a better program by enforcing a mandatory Stage One level that allows the use of EPA-certified stoves and other cleaner burning products but eliminates open fireplaces and uncertified stoves. If the inversion fails to break up and particulate levels increase, then air quality officials can move to Stage Two, which requires that all burning stop.

How do EPA-certified wood stoves and pellet stoves differ from older wood stoves and open fireplaces?

Pre-1992 wood stoves have limited controls on smoke emissions. In contrast, modern, EPA-certified wood burning appliances can be up to 90% cleaner burning than open fireplaces or old wood stoves. They use either a catalytic converter or a sophisticated system of air mixing to achieve a cleaner burn. EPA data shows that replacing twenty old wood stoves with twenty EPA-certified wood stoves will prevent the emission of one ton of particulate matter into the environment each year – an example of the dramatic clean air improvements attributable to technology advancements.

A pellet stove burns small, compressed pellets made from ground, dried wood and other biomass wastes. Pellet stoves use a fan to force air into the fire, just like a carburetor in an auto engine. Another cleaner-burning option is a masonry heater, which depends on carefully engineered passages made with very high temperature ceramic to absorb the heat from a small, hot fire. This feature allows a masonry heater to store heat from a fire within its masonry structure and release heat into the home even after the fire burns out.

How can I tell if I'm using a lower emission stove or insert?

Recent years have seen a proliferation of cleaner-burning, more energy-efficient hearth products that emit significantly lower levels of particulate matter. To help differentiate these newer, more environmentally-friendly appliances from older ones, EPA has initiated a program to certify freestanding stoves, fireplace inserts and built-in fireplaces that meet stringent air quality and energy efficiency requirements. All EPA-certified wood stoves and fireplace inserts have a permanent label on the back that attests to compliance with the standard.

Other hearth products – including pellet stoves and masonry heaters – are so clean they are exempt from EPA certification.

I've read claims that one fireplace can emit as much particulate pollution as 90 SUVs. Is that true?

We've got a few questions for the interest group that cooked up this "statistic." Are you comparing particles emitted per mile traveled by an SUV vs. particles from a pound of wood burned in a fireplace? Or particles emitted per unit of energy in the gasoline powering the SUV vs. particles emitted from the same energy in the wood? Or is it particles emitted by a typical SUV trip vs. particles emitted by a typical fireplace session? What's the make and model of the SUV? What size engine and what kind of emissions control technology does it use? And why are you comparing against an open fireplace rather than a cleaner burning EPA-certified wood or pellet stove?

Clearly, the assumptions in this claim are stacked against wood burning. So, let's look at something more objective: the annual emission inventory developed by the Utah Department of Environmental Quality. According to this government data, cars and trucks are responsible for 155 times more particulate matter and 41 times more fine particles in Utah's air than wood burning. And when you consider other forms of pollution, cars and trucks in Utah emit 93 times more carbon dioxide, 1,285 times more nitrogen oxides, 42 times more sulfur oxides and 65 times more volatile organic compounds than wood burning.

I've also heard that the pollution from one wood burning stove is equivalent to the amount emitted from 3,000 gas furnaces producing the same amount of heat. Really?

Here's another example of cooking the numbers and ignoring the existence of cleaner technology. It is true that wood burning stoves emit more fine particles than gas furnaces. But depending on

the type of EPA-certified stove a homeowner uses, the equivalence number is 130-160, which is not even in the same zip code as the extraordinary 3,000 claimed by some interest groups.

Besides examining particle emissions, a comparison between wood stoves and gas furnaces should also take into consideration that:

- Wood is a renewable resource, not a fossil fuel.
- Collecting, chopping and burning wood is a tradition for some families.
- The lower cost of wood fuel is obviously important for many low-income households.

How have other communities responded to the air-quality challenges posed by inversions?

Many other western communities have improved air quality and preserved homeowner rights to heat with wood or pellets by encouraging upgrades to cleaner technology. Exempting low-emission stoves and inserts from the burning ban is a common-sense solution for cleaning the air and preserving basic freedoms.

Utah needs to do what almost all other western communities do in the winter: institute a mandatory two-stage burn program. Many large metropolitan areas like Seattle, Denver, Albuquerque, and Fresno have some version of this program. During Stage One, when an inversion first starts, local residents are required to stop using all open fireplaces and older uncertified woodstoves, but EPA-certified stoves and pellet stoves may still be used as long as they emit no visible smoke. However if the inversion persists, then officials may declare State Two and restrict the use of even EPA-certified stoves and other cleaner burning devices.

What can I do to help preserve the option for responsible wood burning?

Homeowners should always strive to do the most responsible job of wood burning possible. If you need to heat a lot of space, and/or burn often, consider switching to an EPA-certified wood stove, a pellet stove, or a masonry heater. If your family only burns occasionally, be sure to pay attention to the status of the no-burn program and always use either dry wood or, in a fireplace, manufactured fire logs.

Most importantly, if you value responsible wood burning, take an active role in defeating Utah's total burn ban proposal. If this proposal passes, you will not be permitted to burn anything, anytime, in the winter in the impacted counties.