

US EPA ARCHIVE DOCUMENT

COMMUNITY INFORMATION SHEET



Could your family be affected?

Just 20 old non-EPA-certified wood stoves can emit more than 1 ton of fine particles into your community during the cold months of the year.

— U.S. EPA

Through a collaborative effort, U.S. EPA Region 5 and the Hearth, Patio, and Barbecue Association implemented the Great Stove and Fireplace Changeout Program.

Working closely with the Great Lakes states resulted in the removal and destruction of over 1,200 old woodstoves. Of these, 20 percent of the residents switched from wood heat to gas while the other 60 percent switched to more efficient and less polluting EPA-certified woodstoves or pellet stoves.

— U.S. EPA



Reducing Air Pollution from: Residential Wood Burning

Why do residents who burn wood need to reduce air pollution?

People who are exposed to air toxics at sufficient concentrations, for sufficient durations, may increase their chances of getting cancer or experiencing other serious health effects, such as reproductive problems, birth defects, and aggravated asthma.

Pollution prevention can reduce the impact of air pollution by using materials, processes, or practices that reduce or eliminate air pollution at the source.

During the winter months, some people rely on woodstoves, fireplaces, or fireplace inserts as the primary heating device to heat a house or a room. Others enjoy the warmth and ambience of wood heat and only burn wood occasionally.

Wood is a renewable resource with some benefits over non-renewable fossil fuels. However, the smoke created from wood burning can contribute significantly to air pollution and public health problems.

State, local, and Tribal agencies may already have in place pollution prevention programs related to residential wood burning. Check with your state, local, and Tribal agencies for existing regulations.

What kinds of air pollutants may come from residential wood burning?

- Smoke resulting from improperly burned wood contains many chemical substances that are considered harmful. These include: some toxic air pollutants, fine particle pollution, carbon monoxide, nitrogen oxides, and volatile organic compounds (VOC).
- Toxic air pollutants are an important component of wood smoke. A group of toxic air pollutants known as polycyclic organic matter includes benzo(a)pyrene, which may cause cancer.
- Particle pollution in smoke can damage lung tissue and lead to serious respiratory problems when breathed in high concentrations. In low concentrations, particle pollution in wood smoke can harm the health of children, the elderly, and those with

existing respiratory diseases.

How can residents reduce wood smoke air pollution?

Making changes in wood burning practices can stop pollutants at the source and increase heating efficiency. By improving these practices, people burning wood can decrease emissions, reduce heating costs, and protect family and public health.

Examples of changes in wood burning practices include:

Considering Cleaner Fireplace Fuels

- Natural gas or propane stoves emit very little pollution.
- Pellet stoves burn renewable dried wood and sawdust and burn cleaner than cord wood.

Heating More Efficiently

- Replace an old woodstove, fireplace, or fireplace insert with new, more efficient, EPA-certified equipment. New woodstoves use less wood.
- Wood pellets in an appropriate pellet stove produce 25% to 50% less pollution.
- Reduce heating needs by weatherizing.

Changing Burning Practices

- Burn only hardwoods that are clean, dry, and seasoned because they produce lower emissions of pollutants.
- Never burn garbage, trash, plastics, paints, solvents, charcoal/coal, or treated woods.
- Burn small, hot fires instead of large, smoldering fires.
- Do not burn when the outdoor air quality is poor.

Installing, Inspecting, and Maintaining

- Have your new heating appliances, such as an EPA-certified woodstove, professionally installed to ensure proper operation.
- Have the chimney and the woodstove, insert, or fireplace inspected annually by a professional.
- Clean chimneys on a regular basis.

Residential Wood Burning

How have government agencies already helped to reduce wood smoke air pollution?

Some government agencies have already taken measures to reduce air pollution from wood burning appliances by:

- Restricting wood burning when local air quality is poor.
- Banning or restricting the installation of wood-burning appliances in new construction.
- Issuing air pollution emission standards and establishing certification requirements for wood heaters.
- Sponsoring woodstove changeout programs.
- Conducting information and outreach efforts.

Participate in the Great American Woodstove Changeout!

- This campaign, sponsored by US EPA, the Hearth Industry and others, uses educational information and financial incentives to encourage residents to destroy or trade in their old, uncertified, and inefficient woodstoves.
- Manufacturers, distributors, and retailers may offer cash rebates off the purchase price of a new cleaner burning hearth product. See www.epa.gov/woodstoves.

What else can you do to reduce air pollution from residential wood burning?**Make Connections**

- Get to know local wood burning equipment retailers. They know best about the types of equipment available for residential wood burning and the regulations with which the equipment must comply.
- Get to know members of your community who burn

wood. They can share their concerns about residential wood burning as well as ideas about how to reduce air pollution from wood burning.

- Keep local media aware of progress by sending them updates. Publicity can reward success and attract more public involvement.
- Communicate the potential health, safety and financial benefits of burning cleaner.

Make a Plan

- One idea is to form a work group that includes local citizens and wood burning equipment retailers to develop and implement workable pollution reduction plans. Understand and communicate the health effects from exposure to wood smoke.

Locate Resources

- Use the “For Further Information” list below to find governmental and nonprofit contacts who can provide help with analysis, technical information, equipment, and funding.

Inform Your Community

- Hold public workshops to inform people on how to burn wood more efficiently. See Canada’s Burn It Smart program for an effective model.
- Use public workshops to educate residents about new woodstove and fireplace designs that are more efficient and less polluting than old models.

Reward Communities

- Use media connections to encourage involvement and provide coverage for successful efforts.
- Visibly display awards or certificates within the community to increase interest.

For Further Information

- US EPA’s Clean Burning Woodstove and Fireplace Web Site: www.epa.gov/woodstoves
- Great American Woodstove Changeout Campaign: <http://www.epa.gov/woodstoves/changeout.html>
- Hearth, Patio and Barbecue Association: www.hpba.org, (703) 522-0086
- Woodburning Handbook: www.arb.ca.gov/cap/handbooks/wood_burning/wood_burning_handbook.pdf
- Chimney Safety Institute of America: www.csia.org, (623) 547-0920
- Canada’s Burn It Smart Program: www.burnitsmart.org/english/index.html
- Community-Based Projects: www.epa.gov/air/toxicair/community.html
- Community information, regional, state contacts: www.epa.gov/epahome/whereyoulive.htm
- American Lung Association: www.lungusa.org/site/pp.asp?c=dvLUK9O0E&b=23354, 800-LUNG-USA
- Great Stove and Fireplace Changeout Program: www.woodstovechangeout.org, (877) 81-STOVE [(877)-817-8683]

