



Wood Burning, a Dirty Business

By Sophie Braccini

A wet, chilly night with the family gathered in front of the fireplace...the comforting smell, the crackling of the wood; maybe you're trying to finish that 5000-piece jigsaw puzzle you received for Christmas from the uncle who's still chuckling at the thought. It's a perfect winter's eve. But Max Sherman, Senior Scientist and Group Leader at the Lawrence Berkeley National Lab, says burning wood in the fireplace is not a good idea.

"It is an inefficient way to heat a house and it sends soot and ashes in the air. Winter air pollution is mainly caused by small particle pollution, or particulate matter (PM). The two major winter sources of PM in the Bay Area are residential wood burning and motor vehicles." The Moraga resident still burns occasionally for parties, but as a specialist of indoor air quality he makes sure that the chimney draws well and that unhealthy particles do not enter the house.

Wood burning in the Bay Area is responsible for about 30% of the pollutant particles in the atmosphere, according to the Bay Area Air Quality Management District (BAAQMD). Much has been published that correlates rising PM levels with serious health effects, such as asthma symptoms, decreased lung function, increased hospital admissions and even premature death. Dr. Jeff Ritterman, cardiologist at Richmond Kaiser Hospital, adds to the bleak picture: "PM emissions are probably worst for the lungs but they are bad for the heart as well. Increased rates of heart failure are linked to higher rates of PM in the atmosphere. There is no doubt it's bad for us." The health threat is considered so certain that BAAQMD is in the process of crafting a new policy to address this issue.

Karin Schkolnick, spokesperson for BAAQMD, explains: "The Bay Area has the best urban air quality in California. In 2006 we experienced only twenty days of unhealthy air quality as recorded by our thirty stations."

But she warns that some areas are more susceptible than others to air pollution due to their geographic characteristics. In the winter, light winds at night and terrain blocking to the east and west do not allow much dispersion of pollutants. Lamorinda is considered part of the San Ramon Valley, which is characterized by its very narrow width, and could easily have high pollution buildups from emissions contributed by a freeway in its center and by emissions from fireplaces and wood stoves.

"That is why we wrote the first draft of a new regulation for wood burning and are in the review process. We'll conduct public meetings in January," says Schkolnick. "The proposed rules would ban all burning in fireplaces or wood stoves on "Spare the Air nights," she continues. Limitations would be set year round and open-hearth fireplaces would be banned in new constructions. Moraga passed an ordinance in 2002 mandating the installation of gas inserts in chimneys. But whatever the rules are to be, enforcement seems to be an impossible task with eighty inspectors for almost seven million residents and an estimated 1.7 million fireplaces and woodstoves.

"Our mission is more dissemination of information and education than fines," says Schkolnick, "most people want to do the right thing, they just do not know how bad this pollution is and what to do to reduce it."

In order for help people switch to gas inserts, BAAQMD is planning to establish an incentive program in the form of cash rebates with benefits from \$300 to \$600. For those who still want the feel of a real fire in the fireplace, the market has been offering alternatives that carry two redeeming qualities: the use of recycled material and the dissipation of much less emissions. "Coffee ground logs," that are made of leftovers from coffee shops and claim five times less PM emissions than wood; recycled paper pellets that claim to burn hotter and cleaner than firewood and other types of convenience fire logs with less carbon monoxide, fewer particulate emissions, less residue and more heat; or

logs made of recycled wax-coated cardboard boxes, the material required by the USDA to transport fruits and vegetables to grocery stores.

The best way to be safe is to check www.sparetheair.org or call 800-hel-pair; you will get an instant air quality forecast and recommendations for spare the air nights.



Coffee ground log burning (from Moraga Hardware & Lumber)

Photo Sophie Braccini

On January 1st, BAAQMD sent out this Spare the Air alert:

Spare the Air Tonight,
Tuesday, January 1, 2008, in
the San Francisco Bay Area.

The air quality tonight is forecast to be unhealthy. The Bay Area Air District is asking residents to refrain from burning wood in their fireplaces and woodstoves, and to drive less.

You can help reduce
winter air pollution if you:

- Postpone errands and link necessary trips

- Do NOT burn wood tonight.
- If you must burn wood, burn less and use only dry, clean, seasoned wood, and nonglossy white paper. Moist, or "green" wood smolders more, producing greater amounts of harmful air pollutants.
- Avoid any unnecessary driving, walk, use public transit or your bike instead. If you must drive, carpool and "triplink" your errands into one trip!