



Bay Area Air District requirements for rebuilding fireplaces

The Bay Area Air Quality Management District expresses our sincere sympathy to the residents of the North Bay who lost their homes to the wild fires in October.

Important regulatory changes impacting wood burning fireplaces in the Bay Area.

It is important to know that regulation updates have been made since 2008 which affects reconstruction of a fireplace in your home. Due to the health impacts of burning wood in a traditional fireplace, requirements now prohibit the installation or rebuilding of a traditional wood burning fireplace in new and rebuilt homes.

Why these changes were necessary?

As much as 40% of our wintertime air pollution comes from wood burning and on days when weather conditions trap that smoke in the air, wood burning can account for as much as 60% of Bay Area air pollution. One burning fireplace in a neighborhood can impact air quality in the entire community. And wood burning also pollutes the air inside your home, accounting for as much as 30% of the fine particle pollution that builds in the air trapped inside the house.

Why is smoke from a wood fire a problem?

It is because of the very serious health effects of wood smoke that the Air District further regulated wood burning fireplaces in the Bay Area. Wood burning is a major source of air pollution that emits fine particulate matter (PM2.5), a mix of hydrocarbons and toxic compounds including dioxins, carbon monoxide, nitrogen oxides, and sulfur dioxides. PM2.5 is a complex mixture of very small liquid droplets and solid particles that become suspended in the air and can remain airborne for up to a week. These particles are microscopic, and when breathed in, penetrate the lungs causing serious health effects, such as aggravated asthma, nose and throat irritation, bronchitis and lung damage. The very fine particulates can enter the bloodstream causing premature death in people with heart and lung disease. Health studies have shown that even short-term exposure to elevated levels of PM2.5 air pollution is associated with increased risk of heart attack and stroke. People with respiratory illnesses, children and the elderly are more sensitive to the effects of PM2.5, but it can affect everyone.

Fine particulates are so very small that they easily enter our living spaces. Tests of indoor air in homes with fireplaces have shown levels of particulate increase to a very unhealthy level, up to 100 micrograms per cubic meter, the federal health standard is 35 micrograms per cubic meter. This amount of smoke is unhealthy to breath.

What is the rule that regulates wood burning?

Because wood smoke is such a serious public health concern, the Air District adopted **Regulation 6, Rule 3: Wood-burning devices**. This regulation not only makes it illegal to burn wood on days with predicted high ambient PM2.5 concentrations, but bans the installation of wood burning devices in new construction. Wood burning devices are the single largest contributor to air pollution during winter months.

What can I install instead of a traditional fireplace?

Options for rebuilding, in lieu of wood burning devices, include the installation of gas burning, electric, propane or ethanol fueled devices. Installing an electric heat pump can provide more consistent heating and cooling throughout your home.

The Bay Area Air District regulates air pollution from stationary sources in the 9 counties of the Bay Area, which includes wood burning devices such as fireplaces and wood stoves to protect the public health of Bay Area residents. For more information about the Air District's wood smoke regulation, please visit www.baaqmd.gov.