

## **State Issues New Rules for Outdoor Furnaces to Reduce Emissions, Protect Air Quality**

*Courtesy of the Pennsylvania Township News*

Outdoor wood-fired boilers, or OWBs, are becoming increasingly popular for heating homes and water for domestic use and swimming pools. These exterior furnaces are designed to burn clean wood or other solid fuels and are typically installed as stand-alone units or in sheds or garages.

The units are not always popular with neighboring homeowners, however. In fact, the state Department of Environmental Protection, responding to numerous complaints about smoke and other problems with the furnaces, recently published a new rule regulating their use. The regulation will ensure that only the cleanest burning units will be sold in the commonwealth, cutting down on harmful emissions and protecting air quality.

### **Hazardous smoke**

Outdoor furnaces sound harmless enough. After all, people use wood stoves to heat their homes and sit around campfires roasting marshmallows. However, OWBs have proven to be a significant and growing source of fine particulate matter in Pennsylvania.

In 2006, the U.S. Environmental Protection Agency amended the national standards for fine particulates, setting the standard at a maximum of 35 micrograms per cubic meter over a 24-hour period. Two years later, all or part of 23 counties in Pennsylvania exceeded the standard.

Fine particulates have been shown to contribute to serious health issues, such as lung disease, asthma, aggravation of respiratory and cardiovascular disease, and even premature death.

Tests conducted by the Northeast States for Coordinated Air Use Management show that the average outdoor wood-fired boiler produces emissions equivalent to those from 205 oil furnaces or as many as 8,000 gas furnaces. Cumulatively, the smallest OWB can emit nearly 1½ tons of particulates each year. Of the estimated 155,000 outdoor furnaces sold nationwide, 95 percent have been sold in 19 states, including Pennsylvania.

### **Setting the rules**

The DEP rule applies to anyone who sells, leases, or distributes an outdoor wood-fired boiler for use in Pennsylvania; anyone who installs an OWB in the state; and anyone who purchases, receives, leases, owns, uses, or operates an outdoor furnace in the commonwealth.

The regulation states what kind of OWBs can be sold in the state, where they can be installed, and what can be burned in them.

The rule requires that outdoor furnaces sold in Pennsylvania after May 31, 2011, must be EPA-qualified Phase 2 units, which burn 90 percent cleaner than older units. They must also be installed at least 50 feet from the nearest property line and be equipped with a permanently attached smokestack that extends a minimum of 10 feet above the ground. The rule also dictates what fuels may be used in OWBs, including clean wood, wood pellets, and home heating oil, natural gas, or propane that is used as a supplemental starter fuel.

Non-Phase 2 furnaces purchased up to May 31 must be installed a minimum of 150 feet from the nearest property line and have a smokestack at least 10 feet high.

Although DEP's rule does not impose restrictions on when OWBs may be used, townships may impose restrictions that are more stringent than the department's.

"A township ordinance cannot be less restrictive than the state regulation," says Ken Reisinger, DEP's acting deputy secretary for air. "That would put the township in direct conflict with the state regulation. If the township ordinance is *more* restrictive, however, it is not in conflict with the state."

Paradise Township in Monroe County, for example, has an ordinance that requires new wood-fired boilers to be installed at least 150 feet from all property lines, rather than the 50-foot requirement in the state regulation. The township ordinance also limits the use of OWBs to the period between September 30 and May 1.

College Township in Centre County also has an ordinance that exceeds the state regulations, requiring a setback of 200 feet from property lines, a 15-foot smokestack, and operation limited to September through May. The ordinance restricts OWBs to properties of at least three acres.

Tunkhannock Township in Monroe County requires a 125-foot setback from any occupied dwelling, except those located on the property where the furnace is to be installed, and a 90-foot setback from any road right of way. It also requires a minimum smokestack height of 20 feet, unless the manufacturer recommends a different height.

### **Compliance and enforcement**

Although penalties for violating the regulation can be imposed under the state's Clean Air Act, the department's intent is to encourage compliance, rather than inflict punishment, Reisinger says.

“Our first remedy is always to work with people to bring them into compliance,” he says. “Our focus with this new rule is not to ban outdoor furnaces but to make sure people are using the newest, best, and cleanest units. It still allows people to use a renewable, inexpensive resource to heat their homes.

“We’re doing everything we can in the commonwealth to encourage people to improve air quality,” he adds. “This is just another aspect of that effort.”

For more information, call Ron Gray, chief of the Division of Compliance and Enforcement in DEP’s Bureau of Air Quality, at (717) 772-3369. To download a PDF of the final rule for outdoor wood-fired boilers, log onto [www.depweb.state.pa.us](http://www.depweb.state.pa.us) and type “OWB” in the search field.