

EPA's Phase 2 Voluntary Partnership Program: Hydronic Heaters

Announcement: EPA is working with manufacturers to bring cleaner burning hydronic heaters into the marketplace. Qualified hydronic heaters under EPA's Phase 2 Voluntary Program are 90% cleaner than pre-program models. They will save money by burning more efficiently and will be more protective of public health.

The Phase 2 Voluntary Program includes outdoor wood-fired hydronic heaters or other biomass such as corn or wood pellets, as well as indoor hydronic heaters.

EPA's Voluntary Partnership Program

EPA, manufacturers, testing labs, and States participated in the development of the Voluntary Program for hydronic heaters. The Phase 2 qualifying level is 0.32 lb/million Btu heat output. Qualified units display a white hang tag. EPA is expanding the program to include other biomass, such as wood pellets, corn, sawdust and indoor hydronic heaters. Coal, oil and gas heaters are excluded.

EPA initiated the Phase 1 Voluntary Program in January 2007, to encourage manufacturers to design and market cleaner models. The Phase 1 qualifying emissions level is 0.60 lb/million Btu heat input. Qualified units display an orange hang tag.

The Northeastern States for Coordinated Air Use Management (NESCAUM) issued a Model Rule to help guide States that choose to regulate hydronic heaters. Vermont, Maine, Connecticut and New Hampshire have adopted new State rules and other States are in the process.

The NESCAUM Model Rule includes a Phase 1 (0.44 lb/million Btu heat input) compliance date of March 31, 2008, and a Phase 2 (0.32 lb/million Btu heat output) compliance date of March 31, 2010.

Cleaner models are being developed sooner than the NESCAUM model rule dates through the EPA Voluntary Program. To date, six models have already qualified under EPA's Phase 2 Voluntary Program.

Models qualified under EPA's Voluntary Program



Phase 1: 15 qualified models are 70% cleaner than unqualified models. Phase 1 models display an orange hang tag.

Phase 2: 6 qualified models are 90% cleaner than unqualified models. Phase 2 models display a white hang tag.



What is a Hydronic Heater?

Hydronic heaters typically use wood to heat water that is piped to a nearby building (usually a home), providing both heat and hot water to the structure. Other names for hydronic heaters include outdoor wood-fired boiler or outdoor wood furnace. An outdoor wood heater resembles a small shed with a short smokestack and is usually located outside of the building to be heated. Hydronic heaters may use other biomass as fuel. Some may be located indoors in furnace rooms. For purposes of EPA's Voluntary Program it does not include oil, coal or gas heaters.

What are the health effects of smoke from Hydronic Heaters?

Numerous scientific studies report potentially serious adverse health effects from breathing smoke emitted by residential wood combustion. Smoke contains both fine particle pollution (PM 2.5) and a number of air toxics. Fine particle pollution is linked to a variety of health problems, including aggravated asthma, reduced lung function, development of chronic bronchitis, and irregular heartbeat.

How many Hydronic Heaters are in the U.S.?

There are more than 200,000 currently in use. Most are in the Northeast and upper Midwest.

Should I replace my old outdoor wood boiler or hydronic heater?

If you have an old wood heater, consider replacing it with a cleaner heating device that qualifies for the EPA white hang tag.

Does it matter what people burn in hydronic heaters?

Yes! Use of the wrong fuels in a hydronic heater can decrease the efficiency of your heater and can increase pollution. If you have a hydronic heater, only use fuels recommended by the manufacturer.

How will consumers know which units are cleaner?

Consumers should look for a white hang tag that notes that a unit meets the qualifying emission level of EPA's voluntary program and is 90% cleaner. These heaters will also be marked with a permanent label.

Where can I find additional information on hydronic heaters?

Check www.epa.gov/burnwise for updates of qualified models. For further information contact Tom Braverman, braverman.tom@epa.gov, 919-541-5383.

Additional information can be found by visiting EPA's website at <http://www.epa.gov/burnwise>. Information can be found on a number of topics including best burn practices, links to State air agencies for area-specific information on hydronic heaters, and more detailed information on the health and environmental effects of hydronic heaters.



For more information about hydronic heaters, go to www.epa.gov/burnwise