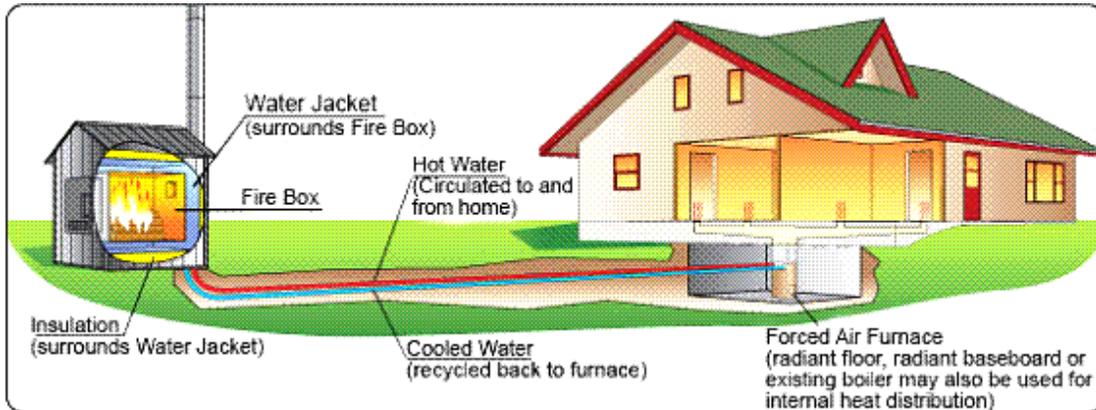


HYDRONIC HEATER FACT SHEET

Hydronic refers to a heating system that transfers heat by circulating a fluid through a closed system of pipes. A hydronic heater is another name for a wood-fired boiler which uses solid fuel combustion to heat water which is then piped through a building (usually a home), providing both heat and hot water to the structure. An outdoor wood heater resembles a small shed with a short smokestack and typically is located on the outside of the building to be heated but can be attached to or inside the building.



EPA's Fact Sheet 2/13/07 says:

Several manufacturers of outdoor wood heaters have said the heaters are as clean as indoor woodstoves. Is this true?

No. When we (EPA) determine how clean or polluting a unit is, we (EPA) look at total emissions per hour, along with stack heights and proximity to other structures to estimate emissions and their impact on air quality and health. Outdoor wood heaters burn significantly more wood than woodstoves -- often 10 times as much or even more. As a result, they emit much more smoke -- and that means more particle pollution. Outdoor wood heaters also typically have short stacks that are close to nearby structures, meaning that the stacks are not usually above the roofline. As a result, wood heater emissions do not disperse as well as the emissions from typical woodstoves.

Applicability of District Rule 225, *Wood Burning Appliances*

Hydronic heaters meet the definition of a *wood burning appliance* and therefore are subject to Rule 225. The particulate matter (PM) emission requirements in the rule are outlined as follows:

Section 301, requires wood burning appliances be certified to:

301.1 Not more than 7.5 grams per hour for a non-catalytic wood burning appliance and not more than 4.1 grams per hour for

a catalytic wood burning appliance, as set forth in Title 40 CFR, Part 60, Subpart AAA or,

301.2 If a more stringent standard than is specified in Subsection 301.1 has been made effective at the time of installation by the amendment of 40 CFR, Part 60, Subpart AAA, then this more stringent certification standard must be met.

“Certified” should not be confused with EPA’s Phase 2 Voluntary Partnership Program which “verifies” that hydronic heaters voluntarily meet emission levels of 0.32 lb/million BTU heat output.

Summary of District Findings:

Based on an analysis of the EPA’s particulate matter emission testing methods for hydronic heaters and the EPA’s wood heater certification program (i.e. as set forth in Title 40 CFR, Part 60, Subpart AAA), it has been determined by the District that hydronic heaters do not meet the emission requirements outlined in Rule 225.

In addition to the Rule 225 emission compliance issues, District Staff believe that compliance with Rule 202, Visible Emission Limits; Rule 205, Nuisance; and Rule 210, Specific Contaminants, cannot be assured. As a result, hydronic heaters would also need to meet all other applicable District rules and Regulations. An evaluation of requirements would be performed through the Authority to Construct permit evaluation process and may include requirements for emissions source testing.

In conclusion, hydronic heaters do not meet emission and regulatory requirements and are not allowed to be sold, purchased, or installed within Placer County. If at some point, a hydronic heater is discovered to meet all applicable requirements for Placer County, then the District will add it to the list of approved appliances for the County.

For more information please contact the District at (530) 745-2330 or pcapcd@placer.ca.gov.

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