



Building Services
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SFR-12 Water Heaters Used for Space-Heating

Reference: 2006 International Residential Code, 2006 International Mechanical Code, and 2006 International Fuel Gas Code

A water heater cannot be used only to supply hot water for space-heating applications, even in a residential setting. An appliance supplying hot water for only space-heating purposes must be listed as a boiler. If a water heater is being used for only space-heating purposes, it needs to be red tagged and taken out of service.

The International Residential Code (IRC) does allow fuel-gas-fired and oil-fired water heaters to be used for space-heating, but only when also used for potable hot water. IRC Section M2004.1 "Water heaters used to supply both potable hot water and hot water for space-heating shall be installed in accordance with this Chapter 24, Chapter 28 and the manufacturer's installation instructions." Chapter 28 is the International Plumbing Code (IPC) section of the IRC that was **not** adopted by Washington State.

IRC Section G2448.2 "Water heaters utilized both to supply potable hot water and provide hot water for space-heating applications shall be listed and labeled for such applications by the manufacturer and shall be installed in accordance with the manufacturer's installing instructions and this code."

The Uniform Plumbing Code (adopted by Washington State) does not address using a water heater for space-heating, but the International Mechanical Code (IMC) and the International Fuel-Gas Code (IFGC) do address using water heaters for space-heating.

IMC Section 1002.2 "Water heaters utilized both to supply potable hot water and provide hot water for space-heating applications shall be listed and labeled for such applications by the manufacturer and shall be installed according to the manufacturer's installation instructions and the IPC. "

IFGC Section 624.2 "Water heaters utilized both to supply potable hot water and provide hot water for space-heating applications shall be listed and labeled for such applications by the manufacturer and shall be installed in accordance with the manufacturer's installation instructions and the IPC. "

Most of the fuel-gas-fired water heaters have installation instructions on how to install for both potable hot water and hot water for space-heating applications. An Internet search did not reveal any electric water heaters that could be used for both potable hot water and hot water for space-heating applications.

There are specific installation instructions and check valve requirements for utilizing a water heater for both potable hot water and hot water for space-heating applications. The check valve provides protection from the cold water supply being routed around the water heater and supplying cold water to faucets instead of hot water. There are no backflow concerns with a water heater used to supply both potable hot water and hot water for space-heating applications if all the piping and any appliances used for the space-heating are listed for use with potable water.