



Clackamas
Multnomah
Washington
COUNTIES

A BCD field office, the Tri-County Service Center administers the minor label program and coordinates forms, processes, and application of code for building programs in Clackamas, Multnomah, & Washington counties.

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News *Connect*

A quarterly newsletter for mechanical contractors

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NW Natural to sponsor August 15 forum

NW Natural is sponsoring a free forum on mechanical code issues from 4-7 p.m., Thursday, August 15, at the Multnomah County Board Room, 501 SE Hawthorne in Portland.

AIA members may earn three hours HSW credit for attending, and qualified participants may earn three hours of code-related continuing-education credit from BCD.

The purpose of the forum is to discuss regional code applications and reach consensus on acceptable standards for the tri-county region. All area mechanical contractors, remodelers, architects, and building-department personnel are invited. ♦

May 30 mechanical-code forum Q & A

Q Regarding on-demand tankless gas or liquefied-petroleum water heaters: Some of the new units on the market require us to supply combustion air from the space in which the water heater is installed. If a unit is installed in a garage and vented to the outside, do I need 50 cubic feet of combustion air for each 1,000 Btu for space- and hot-water heating in a single-car garage?

A Yes. If the garage does not meet that requirement, an additional supply of combustion air is necessary.

Q In a double-car garage?

A Yes, as above.

Q Some of these units modulate up to 117,000 Btu and some up to 235,000 Btu. The smallest I could find for a house is 117,000 Btu. If this unit is considered power-vented or needs to have the vent joints sealed with a high-temperature sealant, can we use a B-vent? If not, can we put B-vent around the vent pipe for reduced clearance?

A The venting system must be installed according to its manufacturer's installation requirements. The committee discussed liability for using a product in a manner other than that intended by the manufacturer. The code does not have guidelines for using B-vent as a sleeve. The committee suggested enlisting the manufacturers of the tankless water heaters and/or B-vent to find a solution.

Q Does a unit with more than 199,000 Btu need an ASME rating? Is this something the mechanical code addresses or does such an installation require an Oregon boiler permit?

A The unit requires a boiler permit if it exceeds any of the following: 199,000 Btu, water temperature of 210 degrees, 150 pounds of operating pressure, or volume of 120 gallons.

Q Is the required gas-shut-off valve for a gas insert allowed to be in the cavity between the base and/or sides of the insert and the masonry walls of the original fireplace?

A Yes. The valve shall be accessible. "Accessible" is defined as access that requires the removal of an access panel or similar removable obstruction. Refer to the Dwelling Code, Sections 2606.3 and 2606.3.2.

Q If there is an access door in the surround?

A Yes. See above.

Q If the surround does not have an access door?

A Yes. See above.

Q When PVC is used for venting a condensing furnace or water heater, what is required to protect the pipe from metal plumber's tape used for hangers or penetrations of the exterior concrete wall?

A Tape suitable to protect from abrasion, such as 10-mil tape, is acceptable.

Continued ...



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BCD's message to
homeowners —

"Permits protect
the safety and
value of your
home."

Our message to
contractors —

Refuse to work
without a permit!

Q Does the condensate line on a 90-percent gas furnace need to be heat-taped? **Background:** The manufacturer states in the instructions "should be heat-taped to prevent winter freeze-up." The manufacturer says that freeze-up pertains to what is inside the furnace, not what is attached to the outside. What happens to the heat tape and PVC when nothing is flowing through it? And how do you heat-tape vinyl tubing on condensate pumps? Manufacturers have told me we don't need it in Oregon because when the system is gravity or pumped-drain, no water stays in the condensate line. What do we do?

A The code does not address this issue, so contractors should follow manufacturers' installation instructions.

Q In the one- and two-family code, Section 1401.6, Mechanical Installations in Attics, requires that flooring extend a minimum width of 30 inches on the control side of the equipment, with a 30-inch-high working space. Section 3905.2 of the Dwelling Code states that there shall be a 36-inch clearance, measured from the energized parts ... etc., and "the work space shall be clear and shall extend to a height of 6.5 feet." As you can see, there is a conflict between these requirements. However, the 6.5-foot height requirement poses a problem. Can your panel can shed some light?

A The difference is that one code section discusses working space and the other minimum platform size. The 6.5 feet required in Section 3905.2 would not apply to a furnace installed in an attic. Platform requirements for attic installation of a furnace are in Section 1401.6.

Q What is the minimum length of black iron pipe allowed for proper gas-meter anchorage when a CSSRT termination fitting is not used?

A The panel did not recommend a minimum length because there are so many variables; instead, the panel determined that the pipe should be "securely mounted to resist movement of the gas meter."

Q If multiple water heaters were piped together for space heating, would Btu and volume combine to make the system a boiler?

A No. ♦

**On-demand tankless gas
training July 31 in Oregon City**

On-demand tankless gas training will be offered 8-10 a.m., Wednesday, July 31, at City Hall, 320 Warner Milne Road, Oregon City. The free training will be presented by Takagi Industrial Co.

The training will cover installation procedures, including gas piping, plumbing, electrical, combustion air and other topics.

To obtain a registration form, go to oregonbcd.org. Click on the Training & Education button, then on the Contractor and Inspector Training Series option. Scroll down to Inspector/Contractor Code Consistency Training, and click on On Demand Tankless Gas. ♦

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