

# TRI-COUNTY SERVICE CENTER



## 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.

### Tri-County Service Center

123 NE 3rd Ave., Ste. 440,  
Portland, OR 97232-2901  
Phone ..... (503) 872-6731  
TTY ..... (503) 373-1358  
Fax ..... (503) 872-6735  
Joan Stevens-Schwenger  
..... manager  
E-mail ..... Joanie.M.  
Stevens-Schwenger@state.or.us

### Building Codes Division

Joe Brewer ..... administrator  
Web site .... [www.oregonbcd.org](http://www.oregonbcd.org)



# News *Connect*

A quarterly newsletter for mechanical contractors

Jan./Feb./Mar. 2002

## Next Code Forum scheduled February 28

The next mechanical code forum meets Thursday, February 28, 4-7 p.m., at the Multnomah Building Commission Meeting Room, 501 SE Hawthorne Street. On-street non-metered parking is available in the area.

The free event is sponsored by the Building Codes Division's Tri-County Service Center and the Plumbing, Heating and Cooling Contractors Association. Contractors can discuss inconsistencies in code application with regional code experts. Through a consensus process, the panel and participants agree on code applications that will apply throughout all tri-county jurisdictions. Area building officials have committed to fully supporting the program. Code-

related credits are available for inspectors, plans examiners, home inspectors, engineers, and architects: three hours of BCD-approved credit for A and B-level Mechanical and One- and Two-Family Mechanical, three hours of AIA HSW credit, and three hours of continuing education units approved by the Construction Contractors Board.

All contractors and building department staffs are welcome to attend. Refreshments will be served!

Please forward your questions for the forum agenda to the Tri-County Service Center, (503) 872-6731 or send e-mail to the center's manager, Joanie.M.Stevens-Schwenger@state.or.us. ♦

## Q & A

The following answers are adopted by tri-county jurisdictions as inspection standards.

**Q What spacing is required between protective barrier posts for HVAC and water heater? What size protection post is required?**

**A** Section 1307.3 states in part, "Heating and cooling appliances located in a garage shall be protected from impact by automobiles." There are too many variables to provide a definite answer for all scenarios. Panel members agreed that this issue should go to a code-change committee for a possible code change. Tri-County Service Center will discuss the process for code changes in the next newsletter. Mike Ewert is involved in facilitating dwelling code changes and will answer questions: [mike.d.ewert@state.or.us](mailto:mike.d.ewert@state.or.us), or (503) 373-7529. To propose code change, use the form on the BCD Web site: [www.cbs.state.or.us/external/bcd/pub/2652.pdf](http://www.cbs.state.or.us/external/bcd/pub/2652.pdf), or download [www.oregonbcd.org/pub/2652.pdf](http://www.oregonbcd.org/pub/2652.pdf).

**Q Are explosion-proof condensate pumps allowed to be installed on the floor of a garage?**

**A** The One- and Two-Family Dwelling Specialty Code provides specific code requirements for the elevation of appliances in Section 1307.3. Although a condensate pump by definition would not be considered an appliance, when used in conjunction with heating and/or air conditioning equipment, it becomes an appurtenance to that appliance.

Condensate pumps used as appurtenances to heating/cooling appliances that generate a glow, spark, or flame capable of igniting gasoline vapors shall be installed (in garages) with burners, burner-ignition devices, or heating elements and switches at least 18 inches above the floor level. Condensate pumps installed on the floor of the garage must be

listed and labeled for installation in a Class 1, Division 2 location, as specified in Article 500 of the NEC. A rating of "explosion-proof" does not guarantee that the equipment will meet this requirement. Listed equipment must be marked to show the class, group (division), and operating temperature or temperature range in which the equipment can be used. Identification numbers are marked on the equipment nameplate.

**Q We have been allowed to create a barrier or dam around a condensate pump that extends 18 inches off the floor. Will that be allowed in all tri-county jurisdictions in the future?**

**A** Such installations are subject to approval of the local jurisdiction as alternate methods and materials.

**Q Can you terminate a domestic clothes-dryer exhaust (not a vent) through a roof?**

**A** Yes, such a termination would be required to follow Section 1801 in the Dwelling Code and Section 504 in the Mechanical Specialty Code. Both codes require an approved backdraft damper with no screen at the duct termination. The transition duct connection at the wall, behind the dryer, could be used as the clean-out required in Section 504.3.

**Q Can you terminate condensate for a furnace outside?**

**A** Yes, condensate drains can terminate outside when, for example, the condensate could not freeze on a sidewalk or other walkway, creating a hazard.

**Q Can we provide combustion air to the furnace through the return-air ductwork?**

**A** Yes, Dwelling Code Section 2004.2 allows that "Ducts admitting outdoor air may be connected to the

Continued . . .



Clackamas  
Multnomah  
Washington  
COUNTIES

*News Connect*

Help area building departments develop consistent inspection standards by sending your questions to the code panel. How?

E-mail: [Joanie.M.Stevens-Schwenger@state.or.us](mailto:Joanie.M.Stevens-Schwenger@state.or.us)

Fax: (503) 872-6735  
Phone: (503) 872-6731

New office hours beginning March 1:  
7:30 a.m.–4 p.m.  
Monday–Friday

return-air side of the heating system.” The Mechanical Specialty Code does not have the same verbiage as the Dwelling Code, but allows for the connection to the return-air duct. The requirements found in Dwelling Code Section 2004.2 (except for the last sentence) can be found in the Mechanical Specialty Code, Section 706.1.1. As an alternative to Section 706, Section 707 of the Mechanical Specialty Code allows the use of a “mechanical forced-air system” to provide combustion air through the building’s mechanical ventilation system.

**Q Must we insulate the vents of a 90+ furnace within unconditioned spaces? We’ve worked in jurisdictions that don’t require this and recently in two jurisdictions that do, and even those two have different requirements for the insulation. Shouldn’t all tri-county jurisdictions be consistent on this?**

**A** There is no code requirement for the insulation of the vent for a 90%-plus furnace. The code requires that you follow the manufacturer’s installation instructions. See the Dwelling Code, Section 1307.1, and see the Mechanical Specialty Code, Section 304.1.

**Q Some jurisdictions require structural calculations for a direct change-out. In 95 percent of change-outs, the old unit’s weight is substantially heavier than the new unit. This adds \$500-\$700 in costs to the building owner. What is the prevailing requirement in tri-county jurisdictions?**

**A** The code does not directly address change-outs. If the new equipment weighs more than the existing unit, structural calculations are required. If the new equipment exceeds 400 pounds, the method of attachment must be shown on the plans. See OSSC, Volume 2, Chapter 16, Division IV, Section 1632.1.

**Q The city of Portland uses minor mechanical permits and it works great. Will we see this for the rest of the tri-county area?**

**A** Commercial mechanical minor labels are issued by the City of Portland. If interest is expressed, Tri-County will present the minor-label concept to its Minor Label Committee for evaluation. (Minor label rules can be

found in OAR 918-100-0020 and apply only to commercial and/or industrial installations.)

**Q Is there a definition of positive pressure?**

**A** Positive pressure is relative to the adjoining space. For example, to control the spread of germs in a hospital, a patient’s room may be negatively pressurized relative to the hallway so that the patients’ germs are less likely to contaminate the hallway. In the burn unit of a hospital, patient’s rooms may be positively pressurized to keep burn victim’s rooms cleaner and to control the infiltration of germs to patients that are highly susceptible to infection. In a laboratory, pressure control is important for contamination prevention. There are a few code references/requirements to barometric control, but a good design provides proper barometric control throughout a building, regardless of code requirements. Control of barometric pressure can result in a more comfortable, longer lasting building.

**Q How does positive pressure relate to service garages and waiting rooms?**

**A** Clean air must be “imported” from a location other than a service garage to create a positive pressure in the waiting room, preventing exhaust fumes from the garage from entering the waiting room. The goal is to provide clean air for the occupants of the waiting room.

**Q I have heard that the code on smoke detectors is being changed to require smoke detectors in both the supply and return ductwork. Is this true, and when will the code change be effective?**

**A** There is no plan for code change at this time. ♦

Due to space restrictions, not all November 29 code forum questions and answers appear in this newsletter. For a complete text, which includes answers about seismic attachment of grilles and ductwork, smoke detectors, and ventilation in repair garages, please check the Tri-County Web pages: [http://www.cbs.state.or.us/external/bcd/forum\\_manual/mechanical/mechanical.htm](http://www.cbs.state.or.us/external/bcd/forum_manual/mechanical/mechanical.htm).

440-2733 (1-3/02/COM)

Tri-County Service Center  
123 NE 3rd Ave., Ste. 440,  
Portland, OR 97232-2901

PRSR STD  
US POSTAGE  
PAID  
SALEM OR  
PERM NO. 24