



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.

A quarterly newsletter for mechanical contractors

September-November 2005

PHCC to sponsor September 14 forum

The Plumbing Heating and Cooling Contractors Association will sponsor a free forum on mechanical code issues, 4-7 p.m., Wednesday, September 14, at the Multnomah County Board Room, 501 S.E. Hawthorne, Portland.

Qualified participants can earn three hours of code-related continuing-education credit from BCD, three hours of master builder continuing-education credit, or three hours of home-inspector credit from CCB.

The purpose of the forum is to discuss regional code applications and reach consensus on acceptable standards for the tri-county region. All mechanical

contractors, remodelers, architects, and building-department personnel in the tri-county area are invited.

Agenda:

Condensate pumps – Brad Bigelow and Mike Ewert

- Examples of submersible pumps, including photos
- Common characteristics
- Guidelines
- Commonly asked questions

Open forum for your questions ♦

Don't stand in line! BCD launches new online services for permits



Saving time means saving money. BCD offers a new online service for contractors: electronic permitting. Building Permits.Oregon.gov allows contractors to apply and pay for over-the-counter mechanical permits in multiple jurisdictions through one Web site using a Visa or Mastercard. Right now, contractors

can pull permits online for jobs in the site's participating jurisdictions: Hillsboro, Portland, Milwaukie, Beaverton, and Clackamas and Washington counties. Minor labels, which contractors can use statewide, are also available through the site. ♦

Tri-County Service Center

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June 15 code forum Q&A

Tri-County building officials have agreed to use the code panel's determinations for inspection standards. If you work in a jurisdiction outside of the tri-county region, please contact local building officials for inspection standards.

Contractors and building-department personnel may send questions for the code panel to Joanie.M.Stevens-Schwenger@state.or.us or fax them to the center, (503) 872-6735.

Q What is the minimum insulation required on the line sets serving a heat pump or air-conditioner?

A As listed in Sec M1411.4, piping and fittings used for refrigerant vapor (suction) lines shall have a thermal resistivity of at least R = 2.85 hr. ft²° F/Btu and having external surface permeance not exceeding 0.05 perms when tested in accordance with ASTM E 96.

Q What about seismic strapping for air conditioners and/or heat pumps? Are there requirements?

A The *Oregon Mechanical Specialty Code* (OMSC), Section 301.15 requires the user of the code to go to the *Oregon Structural Specialty Code* (OSSC), Section 1621 for seismic requirements. *Oregon Residential Specialty Code* (ORSC), Section M1307.2 requires (residential) appliances **designed** to be fixed in position to be fastened or anchored. Additionally, Section M1413.1 **requires** evaporative coolers (swamp coolers) to be secured to prevent displacement.

Q What are the clearance requirements of heat pumps to property lines and structures?

A The distance from property line is governed by local zoning ordinances. The distance from a structure is governed by the manufacturer's installation requirements. **Continued . . .**





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News Connect

The next
Mechanical Code Forum
will be in 2006.

After October 1, check
bcd.oregon.gov, then
click on "Code Programs"
and "Code Forums" for
schedules.

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Q This question concerns retrofitting an AC unit for row houses without a side yard. We are currently allowing contractors to put the units on the strip of property between the garage entry and driveway slabs. There are two possible problems with this scenario: the strips vary in size, and it may be difficult to keep the entire unit on the owner's side of the property line.

A Each installation is likely to be different. Check the easement and maintenance agreement. For example, in Portland, the location of outdoor A/C units or heat pumps is governed by the zoning code; front-yard setbacks are prohibited locations.

Q The second part of this problem and the one that does not appear to be addressed, is protection from vehicle damage. Is some sort of barrier required?

A The OMSC, Section 303.4 states: "Appliance shall not be installed in a location where subject to mechanical damage, unless protected by approved barriers." And the ORSC, Section 1307.3.1 requires: "Appliances located in garages or carports shall be protected from impact by automobiles." The code does not require protection for equipment not in the path of a vehicle.

Q Does the code limit the noise level produced by heat pumps and air conditioners?

A No, noise level is not addressed in the code. Check your city ordinance. Generally, it is between 40 and 50 decibels at the property line.

Q Does the code specify a minimum efficiency rating for air conditioners or heat pumps? Are there new requirements?

A Yes, Chapter 13 of the OSSC and Chapter 11 of the ORSC both have minimum efficiency-rating requirements for heat pumps and air conditioners.

Q What is the requirement for certifications regarding refrigeration brazing? For example, is a certification from ORACCA accepted?

A Under the Oregon Mechanical Specialty Code (OAR 918-440-0015), all persons engaged in brazing or welding related to the installation, alteration, or repair of refrigeration piping systems must have a current valid certification issued upon completion of a class given by a division-approved organization. (There are five such organizations: Oregon Air-Conditioning Contractors Association (ORACCA), Linn Benton Community College, Local 16- Sheet-Metal Training Center, JC and Associates and Local 701- International Union of Operating Engineers.) Refrigeration systems installed in dwelling units regulated under the Oregon Residential Specialty Code are exempt from this requirement.

Under the Oregon Boiler and Pressure Vessel Program, the requirements of OAR 918-225-0430(5) shall be enforced for all welded, brazed, or mechanically assembled refrigerant piping *exceeding two inches NPS* containing any refrigerant chemical *other than A-1 or B-1* refrigerants, as listed in ASHRAE 34. Persons performing these duties must have a Class 5-B Refrigeration Piping Mechanic Certification, as required by OAR 918-225-0691.

For more information about division-approved groups, contact Mike Ewert, (503) 373-7529, or send e-mail to mike.d.ewert@state.or.us.

Q Decorative appliance installation: Must the shut-off valve be accessible? I recently inspected a decorative appliance that required me to unscrew the glass face and remove the ceramic logs in order to access the shut-off valve. The contractor told me that this installation was accepted in other jurisdictions. Is this true?

A The location of and access to this valve shouldn't have been approved by any jurisdiction. The code requires that each appliance be provided with a shut-off valve separate from the appliance. Dismantling the appliance to access the valve does not meet the intent of the code.

Q OMSC, Section 401.5.1, 804.3.4(4) and C503.8(2) appear to have conflicting requirements for the horizontal clearance from an air inlet. Which section prevails?

A Section 401.5.1 has a general requirement of 10 feet for horizontal clearance and further states: "... *except as otherwise specified in this code.*" Sections 804.3.4(4) and C503.8(2) have specific requirements that override the general requirements found in Section 401.5.1.

Q Where does the enforcement of LPG systems start for mechanical inspectors?

A Mechanical inspections begin at the first-stage regulator, which is normally located at the tank. The tank and any associated piping to the first-stage regulator are under the jurisdiction of the Office of the State Fire Marshal (or under an exempt fire district).

Q ORSC, Section M1506.4 requires exhaust fans to be vented directly to the outside. Can the vent terminate at a bird block or does it have to have its own vent through the roof?

A Yes, it may terminate at a bird block, but the vent pipe must be extended to the exterior of the building and shall terminate past the bird block to the very outside of the building envelope, with some sort of positive connection (or boot) to prevent the moist air from easily re-entering the attic. Just "getting close" for this type of application is not acceptable. ♦