

STATE OF OREGON BUILDING CODES DIVISION

PLUMBING CODE INTERPRETATION

SUBJECT: Water Heater Seismic Strapping

CODE SECTION: Oregon Plumbing Specialty Code (OPSC), Section 507.2 & Oregon Residential Specialty Code (ORSC), Section P2810.5 & Figure R301.2(2).

CODE EDITION: 2005 Edition.

DATE: August 12, 2005

QUESTION: Section 507.2(OPSC) and P2810.5(ORSC) requires seismic strapping for water heaters in various seismic zones. Before these code provisions were adopted an interpretive ruling (No. 93-94) defined strapping materials and anchoring components. Where are these new seismic zones located and are the strapping materials and anchoring components addressed in the former interpretive ruling 93-94 still acceptable?

ANSWER: **The water heater seismic strapping requirements and applicable seismic zones have changed with the adoption of the new codes. Now all water heaters under the 2005 Oregon Plumbing Specialty Code statewide must be strapped. Water heaters installed in buildings within the scope of the 2005 Oregon Residential Specialty Code are required to be strapped in all counties in the state except the following: Wasco, Jefferson, Deschutes, Crook, Sherman, Wheeler, Gilliam, Marrow, Grant, Harney, Umatilla, Union, Baker, Malheur and Wallowa. A map of the seismic zones is published in the 2005 Oregon Residential Specialty Code, Figure R301.2(2), Page 3-4.**

All water heaters required to be strapped, must have at least two straps. One within the upper one-third and one within the lower one third of the water heater's vertical dimensions. Plumber's tape or equivalent strapping materials are acceptable. Connectors must have washers to assure the connector does not pull through the strapping. The following connectors are acceptable: #12 wood screw with 1 ½ inch penetration at each end, ¼ inch diameter concrete anchor of 1 ½ inch minimum length.