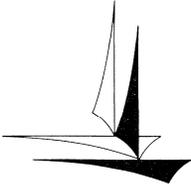


## RADON RESISTANT CONSTRUCTION IN NEW HOMES



Construction Code Services Division  
Informational Bulletin  
Revised September 2009

### State Code Requirement as of June 1, 2009

Legislation has been passed to require installation of radon resistant building features following Appendix F of the International Residential Building Code.

#### **What are the Building Code Requirements?**

Homes built using radon-resistant construction techniques usually rely on "passive" radon control. These systems reduce soil gas entry points and provide a route to vent the gases to the outdoors. A fan may need to be installed to further reduce the radon level. They include the following:

- **Aggregate:** Four inches of clean aggregate; soil-gas collection mats or drainage mats may also be used instead.
- **Soil-gas retarder:** Provide 6 mil thick polyethylene sheeting, overlapped 12 inches at seams and fitted closely around all penetrations, is placed over the aggregate. In crawlspaces, it is sealed to the foundation walls and interior piers.
- **Sealing:** All potential soil gas entry points are sealed with caulking or expanding foam. Sump baskets must have a sealed cover.
- **Vent pipe "T":** A "T" fitting made of 3 to 4 inch diameter PVC piping is inserted into the aggregate under the basement slab or under a crawl space's vapor barrier.
- **Vent pipe:** The vent pipe is a 3 to 4 inch diameter schedule 40 PVC pipe that is connected to the "T" in the aggregate. If the home has a sump pit or drain tile system, the vent pipe can instead be inserted directly into the sump pit or connected to the drain tile loop. The vent pipe runs vertically up to and through the roof.
- **Electrical junction box:** An electrical junction box is roughed in the attic near the vent pipe. The power supply can be used if the radon control system needs to be "activated" by installing a fan in the future.
- **Roof flashing:** Flashing must be installed around the vent pipe where it exits the roof to prevent leakage.

**Additional information can be obtained through the Minnesota Department of Health web site:**

[www.health.state.mn.us/divs/eh/indoorair/radon](http://www.health.state.mn.us/divs/eh/indoorair/radon)