

A RADON RESISTANT NEW CONSTRUCTION SURVEY
FOR HOME BUILDERS IN PENNSYLVANIA

Howard A. Sher
 Pennsylvania DEP/Bureau of Radiation Protection
 Harrisburg, PA

In an effort to gather information on Radon Resistant New Construction (RRNC) in the building industry, a simple eight question survey was developed. A 3500 member list of home builders was obtained from the Pennsylvania Builder's Association. Included with the survey was a brochure detailing the techniques used in RRNC and where to get more specific information. A high number of responses claim to use RRNC. Other ongoing projects will attempt to educate the building industry on the importance of RRNC.

Chapter 240.2- Scope, Radon Certification regulations of the Pennsylvania Code states:

(a) This chapter applies to all persons except a person:

- (1) Testing for or mitigating against radon contamination in a building that a person owns or occupies.
- (2) Using measures designed to prevent radon contamination in newly constructed buildings. This exemption does not apply to radon testing or installation of radon mitigating devices in these buildings following occupancy.

Since this exemption allows new home builders to install RRNC features without the training and experience requirements of the state certified mitigators, it is our desire to provide education, information, and assistance on RRNC techniques to this segment of the radon industry.

The survey form developed was sent to the 3500 home builders in Pennsylvania. Out of the 3500 survey forms, 638 were completed and returned to the Radon Division. Several builders claimed that radon was not a problem and do not incorporate RRNC techniques because it is an unnecessary burden and expense. The responses are outlined below (total responders - 18.2%):

2. Survey questions	YES	NO	N/A	NO RESPONSE
a. Use radon-resistant techniques in new homes	93%	7%	-	-
b. Provide at least 4 inches of aggregate under slab	97%	1%	-	2%
c. Provide a vapor barrier before pouring slab	78%	19%	-	3%
d. If providing perforated PVC under slab, is pipe stubbed through basement floor and capped	60%	20%	8%	12%
e. Pipe extended through house to attic and through roof	42%	38%	8%	12%
f. Seal openings and penetrations if using block wall foundation.	79%	6%	-	15%
g. Block walls capped at top.	74%	11%	-	15%
h. Fan installed during construction.	14%	80%	-	6%

Other projects completed or ongoing:

1. Produce video showing installation of RRNC features during new home construction.
2. Contact Eastern Regional Radon Training Center to develop course(s) on RRNC techniques. Four 1 day courses are to be presented across PA this fall of 1996.
3. Contact WGBH in Pittsburgh, PA to do a segment on RRNC
4. Sponsor a booth in regional and local home builder shows.
5. Working with the PA Builders Association (PBA) to endorse and promote RRNC techniques to their members.
6. As of January 1996, the PA Department of Community Affairs (DCA) - Manufactured Housing Division, requires that all manufactured homes to be sold in or built in Zone 1 counties of PA to have RRNC techniques incorporated into the structure as per the Council of American Building Officials (CABO) requirements.
7. RRNC brochures are handed out to planners, developers and builders attending Soil and Erosion workshops conducted by the Bureau of Land and Water Conservation in DEP.

Overall, this survey and other outreach projects will provide education, information and DEP assistance to new home builders in the Commonwealth in the area of Radon Resistant New Construction (RRNC) techniques.