

## Radon awareness still a challenge

By Jill Coley The Post and Courier Friday, December 5, 2008

Ten experts presented their lives' work to the President's Cancer Panel on Thursday in Charleston, the third of four such public meetings held across the country.

Environmental factors in cancer was this year's panel topic. Presenters strode broadly among pollutants found in the ground, air, water and products we use daily.

Panelists, who listened to the presenters and asked questions, are appointed by and report to the president. Several presenters spoke on radon, a cancer-causing radioactive gas that has largely slipped out of the public's awareness.

## More info

To read past reports by the President's Cancer Panel, visit pcp.cancer.gov.

To order a free radon test kit for your home, visit <u>scdhec.net</u> or call S.C. Toll Free Radon Hotline at 1-800-768-0362.

Radon is a colorless, odorless gas that occurs naturally in the earth and can be trapped in structures. When people breathe radon, the radioactive gas decays in their lungs, shedding particles that can trigger cancer.

Between 16,000 and 23,000 people are estimated to die annually from lung cancer caused by radon. Between 10 percent and 14 percent of all lung cancer deaths per year may be attributable to radon, said Dr. Jay H. Lubin with the National Cancer Institute.

The U.S. Environmental Protection Agency has set an action level for radon of 4 picocuries per liter of air. But that action level is meaningless, several presenters argued. No level of radon is safe, and any action taken to fix a house polluted with radon is voluntary.

New construction can be made radon-resistant and remediation measures for older structures exist, but both are the responsibility of owners. Requiring testing during real estate transactions was suggested by the EPA's Capt. Susan M. Conrath.

Lubin said the burden should not be personal. "We're asking a few to bear a societal burden for all mitigation," he said. Relying on buyers also does nothing to solve the problem of radon in schools and other municipal structures.

The housing boom has created even more houses at risk for radon, said Dr. William Field, professor of occupational and environmental health at the College of Public Health at University of Iowa. Field said the U.S. is worse off now than a decade ago in terms of radon exposure.

While radon is linked to certain geologic features, such as uranium and phosphate, there are no regions of the country considered free of the gas. In South Carolina, "Just about every county has seen some elevated results," said Reginald Massey, former radon contact for the S.C. Department of Health and Environmental Control.

President's Cancer Panel member Dr. Margaret L. Kripke, from The University of Texas M.D. Anderson Cancer Center, described radon exposure as a public health failure. "Who's responsible for getting the message out?" she asked.

Conrath, of the EPA, took responsibility for awareness efforts, but presenters said voluntary efforts are not enough.

During a public comment period, Dr. James B. Burch, an epidemiologist at the Arnold School of Public Health, urged the panel for a national radon standard that is enforceable.

## HIGHLIGHTS

More highlights from the President's Cancer Panel meeting:

— Cancer risk from air pollution, not including diesel and fine particulate matter, is poorly understood but likely negligible, said Dr. William L. Chameides, dean of the Nicholas School of the Environment at Duke University.

— Not enough is known about risks associated with new, emerging pollutants, such as fire retardants and nanoparticles, which are found in new products such as "wrinkle-free" clothes, he said.

— Also alarming is the concentration of diesel fumes on school buses, he said, and the largely unknown effects of endocrine disrupters, which mimic hormones and are found in plastics and pesticides.

— In water, high levels of arsenic, greater than 100 micrograms per liter, can cause cancer. Levels these high are rarely found in the United States, except for private wells in areas scattered across the country, according to Dr. Kenneth P. Cantor, senior investigator with the National Cancer Institute. More studies need to be done to assess the risk of low levels of arsenic.

— While disinfection of water is one of the great success stories of public health, disinfection byproducts have been linked to bladder cancer, Cantor reported. These chemicals are generally elevated in water systems that use treated surface water sources.

— Environmental factors that may increase risk for breast cancer were also examined by two presenters. A higher risk was noted in women who live with a smoker and those who eat grilled or smoked meat, said Dr. Marilie D. Gammon, professor of epidemiology at University of North Carolina, Chapel Hill.

— Dr. Julia G. Brody, executive director of the Silent Spring Institute, drew attention to breast cancer risk and ubiquitous endocrine disrupting chemicals, including PCBs used in caulking, paint, flame retardants, electronics, furniture, sunscreen and plastics.

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