



Reducing Your Exposure To Radon

WHAT EPA IS DOING TO REDUCE RADON EXPOSURE

- **Drinking Water**

- Propose standard in 1991; promulgate standard in 1993
- Help States and systems implement new regulations
- Conduct public education
- Through mobilization, build partnerships to strengthen the ability of small systems to comply with new regulations

- **Indoor Air**

- Establish indoor air action level—4 pCi/l
- Conduct public education
- Recommend home testing and mitigation procedures
- Certify measurement and mitigation contractors
- Help States implement radon abatement programs

PROPOSED NEW RADIONUCLIDE DRINKING WATER STANDARDS

- **Proposes new standards for radon and uranium**
- **Proposes revised standards for radium, gross alpha emitters and beta and photon emitters**
- **Proposed radon standard will**
 - Reduce exposure for an estimated 17 million people
 - Result in avoidance of an estimated 80 cancer cases per year
- **Proposed standards for other radionuclides will**
 - Reduce exposure for an estimated 2 million people
 - Reduce uranium exposure for an estimated 875,000 people
 - Result in avoidance of an estimated 3 cancer cases per year

THE PRIMARY RADON HEALTH HAZARD COMES FROM BREATHING AIR CONTAINING RADON

- Indoor radon may result in 8,000—40,000 lung cancer deaths annually
- The higher the level of radon, the greater the risk of developing lung cancer
- Smokers exposed to radon may have up to ten times the risk of contracting lung cancer as never-smokers exposed to the same radon levels
- Most radon in household air comes from soil gas that seeps into the home through the foundation
- Radon in water generally accounts for about 5% of the total indoor air concentration in homes with ground-water sources of drinking water. It is released into indoor air during household water use such as showering and washing clothes
- Radon is not found in surface water
- On average, 10,000 pCi/l radon in water contributes about 1 pCi/l radon to indoor air of a house

WHAT YOU CAN DO TO REDUCE YOUR RADON EXPOSURE

- Test the indoor air of your home
- Test your water if
 - The level of radon exceeds 4 pCi/l in the air and
 - You get your drinking water from a household well
- Take appropriate steps to mitigate radon in your home if the indoor air level exceeds 4 pCi/l
- Call 1-800-SOS-RADON or contact your State Radon Office to obtain information about radon in air
- Call the Safe Drinking Water Hotline (1-800-426-4791) or contact your State Drinking Water Office to obtain information about radon in drinking water
- Contact your local water supplier if you get your drinking water from a community system and you are concerned about the level of radon in your drinking water

THE HEALTH EFFECTS OF RADIONUCLIDES IN DRINKING WATER

Radon

- Lung cancer
- Stomach and other cancer

Radium

- Bone and other cancer

Uranium

- Kidney toxicity
- Bone and other cancer

Gross Alpha Emitters

- Cancer

Beta and Photon Emitters

- Cancer

SOURCES OF RADIONUCLIDES IN DRINKING WATER

Naturally Occurring

- Radon
- Radium
- Uranium
- Most alpha emitters
- Some beta and photon emitters

Man-Made

- Most beta and photon emitters
- Some alpha emitters