Radon

What Is Radon and How Is It Used?

Radon is a natural gas that you can’t see, smell, or taste. It is produced by the natural breakdown of uranium in soil and water. Uranium is found in soils worldwide, with some areas having higher concentrations than others. Any building can have a radon problem. Radon gets into a building by moving up through the ground and then through cracks and holes in the foundation. Buildings can trap radon, which can lead to harmful concentrations indoors.

Health Concerns Associated with Radon Exposure

- Radon is the leading cause of lung cancer among nonsmokers.
- The U.S. Environmental Protection Agency (EPA) lists indoor radon as one of the most serious environmental health problems in the U.S.

Radon and Children

- Children have smaller lungs and therefore higher breathing rates.
- Children spend up to 70% more time indoors than adults on average.
- Radon-related lung cancer is correlated with a person’s total lifelong exposure.

According to the EPA, a nationwide survey estimates that 1 in 5 schools has at least one schoolroom with a radon level that exceeds recommended levels.

Reducing Your Exposure to Radon

- The EPA and the office of the Surgeon General recommend that all homes be tested. If your average indoor radon level measures at or above 4.0 pCi/L (picocuries per liter), take action to reduce it.
- Fixing buildings to reduce radon exposure may entail sealing cracks in the foundation or ventilating the area under the foundation.

How to Test for Radon

- Common test kits:
  - charcoal canisters (short term, 2-7 days)
  - e-perm (short/long term)
  - alpha track detectors (long term, 91-365 days)
  - charcoal liquid scintillation devices
- Follow the directions of the kits closely since the length of time the kits can remain open varies.
- Place the test kit in the basement or lowest-lived-in level of a home, school, or childcare.
• After a specified amount of time, mail the kit to the manufacturer to be analyzed.

• Since radon levels vary every day, it’s best to do two short-term tests for at least 48 hours. This is best done either at the same time or one after another to obtain an average.

Radon Resources on the Internet

• US Environmental Protection Agency
  www.epa.gov/iaq/radon

• National Safety Council
  www.nsc.org/resources/issues/radon/index.aspx

• National Environmental Health Association: Radon Mitigation Providers by Area
  www.radongas.org/Description_of_Radon_Mitigation_Services.html

• Coupon for radon test kit

This fact sheet was developed from the Healthy Environments in Child Care and Preschools Program from Children’s Environmental Health Network. Visit their Web site at www.cehn.org.