

RADON GAS

Radon gas naturally occurs as the result of uranium decaying deep in the earth's crust. Radon exists all around us, but only in high concentrations is it considered dangerous. The gas Rn 222 is odorless, invisible, chemically inactive, and radioactive. Its daughter products, such as Polonium 218, are also radioactive. According to the EPA, prolonged exposure to all these decaying particles can be a health hazard, especially when long-term readings exceed 4 pCi/l (pico Curies per liter of air).

If Radon is found in your home, the EPA suggested the crawl space as the first line of defense against Radon gas. The crawl space "collects" the Radon gas which is emerging from the soil under the house. Good ventilation sweeps the gas out of the crawl space, preventing its diffusion into the home.



Unfortunately no studies are available to show the effects of intermittent ventilation, like that which the ATMOX system provides, on the concentration of Radon gas. Common sense, however, will tell you that any ventilation is better than none!

When running, ATMOX is designed to create an underpressure in the crawl space, thus preventing the gas from finding its way into the house. ATMOX is not designed to run all the time; it only runs when the outside conditions are right to help the humidity problem in the crawl space. We know that a 24 hour ventilation system would be best for fighting Radon and might be necessary for a house with a very high concentration of the gas. We also know, however, that such an around the clock system consumes a considerable amount of energy and unfortunately, will also increase moisture and undercool the crawl space. In the summertime warm air will bring in moisture, which can actually condensate on the cooler wood structure and leave a film of water. If the wood is not

already saturated, it will absorb that film of water quite readily! In the winter time cold air could lead to damage from frost!

When it comes to Radon many people want the most assurance they can get! Unfortunately at this time there are no instruments available which would easily interface with the controls of ATMOX. We are exploring the possibility of measuring Radon on a very short term basis (not days, but hours). ATMOX has the interface for which such an instrument could be plugged in. The idea is to catch the gas when it occurs and have ATMOX immediately expel it from the crawl space. From long-term observation we know that the flow of Radon is very sporadic! It would help the most if we could determine such peaks of gas escaping from the soil under the house and do something about it and not wait until its concentration has reach dangerous levels! Stay tuned, we will keep you posted!

See what the official EPA homepage says concerning Radon at www.epa.gov/iaq/radon.

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