

Physics Department Seminar



“Pennsylvania’s Radiation Protection Program and Radon Experiences”

This presentation will provide an overview of Pennsylvania’s Radiation Protection Program, and focus on experiences with indoor radon. The Commonwealth’s geology is unique, with several areas having relatively high levels of natural radium in surface soils and subsurface rock formations. In fact, the state has [perhaps] the highest indoor radon levels in the country. With the 1984 discovery of the ‘index house’ in the Reading Prong area with radon over 2,600 picocuries per liter (pCi/L), national attention quickly focused on the residential radon issue. During this time-period thousands of homes were tested over the course of a few years. Also at that time, the U.S. EPA developed a residential indoor radon ‘action level,’ and set an annual average concentration of 4 pCi/L as a guideline. Radon measurements above 4 pCi/L should prompt mitigation. Many national and international organizations support this recommendation. An increased risk of lung cancer from chronic radon progeny exposure has been demonstrated in numerous uranium miner studies and related scientific reports. In 1987 the Pennsylvania state legislature passed a *Radon Certification Act* to “protect property owners from unqualified or unscrupulous consultants and firms.” Over the years, test results greater than 100 pCi/L have prompted the Department to perform targeted radon surveys in the same general area. In 2014 such a survey in the Allentown area resulted in the discovery of numerous homes with over 1,000 pCi/L, and others in the tens and hundreds of pCi/L. Ongoing study of this area has documented 19 homes over 1,000 pCi/L, with one home at 17,000 pCi/L pre-mitigation! With a clear public health threat in mind, the Department has undertaken significant efforts to: offer free radon test kits in this area, alert the public to test and mitigate, and engaging local home builders to utilize proper ‘radon resistant new construction’ methods with all new homes in the area. Past studies / findings and a current update on this very high radon area will be provided in this presentation.

By

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Wednesday, October 23, 2019

4:00 – 5:00 p.m.

Roddy Hall, Room 149



Refreshments will be available at 3:30 p.m.

All invited to attend!