

0 3 MAY 1991

SELFM-EH-EV

MEMORANDUM OF RECORD

SUBJECT: ARMY RADON REDUCTION PROGRAM

1. Radon is a naturally occurring, odorless, tasteless, transparent, inert radioactive gas that is formed from the radioactive decay, or breakdown, of radium. Radon may be found in high concentrations in soils and rocks containing uranium, granite, shale, phosphate, and pitchblende (a principal ore of uranium and radium). Radon may also be found in soils contaminated with certain types of industrial wastes, such as the byproducts from uranium or phosphate mining.

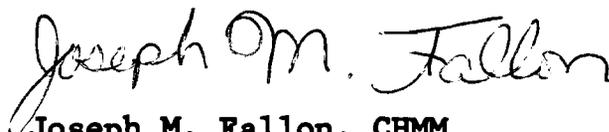
2. Radon has always been present in the air. Regarding outdoor air, radon is diluted to such low concentrations that it is usually not an issue of concern. However, once inside an enclosed space (such as a building) radon can accumulate. Indoor levels depend both on a building's construction and the concentration of radon in the underlying soil. Since radon is a gas, it can move through small spaces in the soil and rock on which a structure is built. Radon can seep into a building through dirt floors, cracks in concrete floors and walls, floor drains, sumps, joints, and tiny cracks or pores in hollow-block walls.

3. The only known health effect associated with exposure to elevated levels of radon is an increased risk of developing lung cancer. Not everyone exposed to elevated levels of radon will develop lung cancer, and the time between exposure and the onset of the disease may be many years. The U.S. Environmental Protection Agency (EPA) has established threshold levels for exposure to radon gas. Radon levels at or less than 4 pCi/L are not considered a significant health risk by the EPA.

4. As part of the Army's Radon Reduction Program, the Directorate of Engineering and Housing's (DEH) Environmental Office conducted a comprehensive radon survey for the three operational areas that make up Fort Monmouth. The three areas include the Main Post, the Charles Wood area and the Evans area. At these locations, radon detectors were deployed inside all structures designated as priority one buildings. Priority one buildings are defined as daycare centers, hospitals, schools and living areas. On June 17, 1989, one thousand, one hundred and thirty two (1,132) radon detectors were deployed. The Army's Radon Reduction Program stipulated that the radon detectors remain in place for a minimum of 90 days. On October 28, 1989, one thousand and seventy-seven (1,077) radon detectors were retrieved. Based upon the number of detectors retrieved, the DEH Environmental Office achieved a 95 % recovery rate.

5. The radon levels measured in each of the 1,077 decetors were less than 4 pCi/L. Based upon EPA criteria, radon levels at Fort Monmouth do not pose a significant health risk. Additionally, under the Army's Radon Reduction Program, Fort Monmouth was not required to take any further action pertaining to radon issues.

6. Should there be any questions or a need for additional information, please contact the undersigned. I can be reached at the following telephone number: 908-532-6223.

A handwritten signature in cursive script that reads "Joseph M. Fallon".

Joseph M. Fallon, CHMM
Environmental Protection Specialist
Directorate of Eng. & Hsg.