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M-465

Formerly Utilized Sites Remedial Action Program (FUSRAP)

ADMINISTRATIVE RECORD

for Maywood, New Jersey



U.S. Department of Energy



DEPARTMENT OF HEALTH & HUMAN SERVICES

132992

Public Health Service

Agency for Toxic Substances
and Disease Registry
Atlanta GA 30333

JUN 19 1995

Mrs. Diane Sartore Bodo
22 Long Valley Road
Lodi, New Jersey 07644

Dear Mrs. Sartore Bodo:

As you requested during our meeting on March 5, 1995, we have evaluated the health risks associated with the level of radiological contamination in the soil around your home and the level of radon gas and radon decay products inside your house and have concluded that neither poses a health risk to you or your family.

Soil Contamination: The total calculated exposures were much less than the allowable level to the public of 100 millirem/year (or 1 millisievert/year) above background levels. For our evaluation, we used the contamination levels reported by the U.S. Department of Energy (DOE) for your home in 1988 (*Radiological Characterization Report for the Residential Property at 22 Long Valley Road, Lodi, New Jersey*). We calculated total exposure levels for different age groups. Our analysis focused on thorium-232, because it is the only radiological contaminant reported above clean-up levels (5 picocuries/gram). However, to be as cautious as possible, we also included in our calculations reported levels of radium-226 including background and of thorium-232 decay products. In addition, we assumed a fairly high level of exposure (for example, we assumed ten-year-old children played outside eight hours a day, six days a week, for 26 weeks a year and assumed they inhaled dust outside and inside the house all year).

The total potential doses for each age group from exposure to contaminated soil and household dust through swallowing, breathing and external exposure were as follows: children at 2 1/2 years old - approximately 20 millirem/year (or 0.2 millisievert/year); children at 10 years old - approximately 16 millirem/year (or 0.16 millisievert/year); adults - less than 10 millirem/year (or 0.1 millisievert/year).

Radon: The EPA acceptable level for radon-222 gas in homes is 4 picocuries/liter of air, and the levels measured in your home (0.4 and 0.5 picocuries/liter) are markedly lower.

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Levels of radon-220 and radon-222 decay products were very low. The measured levels of radon-220 decay products were 0.001 and 0.002 working levels (WL), and the measured levels of radon-222 decay products were 0.002 and 0.003 WL. The EPA acceptable level for homes is 0.02 WL, which is approximately ten times higher than the measured levels in your home.

We know that DOE has committed to cleaning-up your property and is in the process of recharacterizing the contamination levels. However, we can reassure you that in the interim period before clean-up you and your family are not being exposed to radiation at levels that pose a health threat.

If you have any questions, please feel free to contact me at (404) 639-6060. If new data become available, we will be glad to re-evaluate your concerns.

Sincerely yours,



Carol Connell
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and Consultation