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RESULTS OF WATER SAMPLING OF WELL

12/10/92

DOE-0481-93
DOE-FN/CITIZEN
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LETTER



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Department of Energy
Fernald Environmental Management Project
P.O. Box 398705
Cincinnati, Ohio 45239-8705
(513) 738-6357

DEC 10 1992
DOE-0481-93

Mrs. Joan Pottenger



Dear Mrs. Pottenger:

The Westinghouse Environmental Management Company of Ohio (WEMCO), in cooperation with the Ohio Environmental Protection Agency and the Department of Health, has been collecting water samples from your well and others in the area as part of our continuing environmental monitoring program. Samples have been collected from your water softener system and the reverse osmosis filter in your kitchen. These samples are analyzed for uranium concentration in order to assess any possible effects of Fernald Site operations on groundwater quality.

The purpose of this letter is to provide you with an update on the results of our sampling. The laboratory results from the months of August, September and October are expressed below in parts of uranium per billion parts of water (ppb), and picocuries of uranium per liter of water (pCi/L). Picocuries per liter are the units used to express groundwater data in the Annual Environmental Report.

<u>Sampling Date</u>	<u>Uranium Concentration</u>	
	<u>(ppb)</u>	<u>(pCi/L)</u>
(Water softener system)		
August 22, 1992	4.3	2.9
September 26, 1992	5.8	3.9
October 24, 1992	3.0	2.0
(Reverse osmosis filter)		
August 22, 1992	<0.1	<0.1
September 26, 1992	<0.1	<0.1
October 24, 1992	<0.1	<0.1

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-J. Pottenger

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A groundwater study conducted by an independent consultant for the Fernald Site determined that background concentrations of naturally-occurring uranium in the groundwater for this area range from less than 0.1 ppb to 2.7 ppb (0.07 to 2.0 pCi/L). Also, a U. S. Geological Survey study (J.D. Hem, 1970, Geological Survey Water-Supply Paper 1473) reported a range of uranium concentration of less than 0.1 ppb to 10 ppb (0.07 to 6.8 pCi/L) in most natural water within the United States.

The Environmental Protection Agency (EPA) has proposed an interim drinking water standard for total uranium of 20 ppb (13.5 pCi/L). The uranium concentration in your samples is well below this limit. The uranium concentration in your water softener samples continues to indicate an elevated concentration of uranium above the background range expected for this part of the country. However, the results are consistent with those obtained and reported to you during the previous periods. A sample could not be obtained from your outside faucet during the months of September and October due to maintenance problems. Environmental Monitoring will continue to collect water samples on a monthly basis, at your convenience.

If you have any questions regarding the results reported to you in this letter or on any aspect of our environmental program, please contact me by phone (738-6160) at your convenience.

Sincerely,



Wally Quaider
Acting Assistant Manager
Technical Support

FN:Quaider