

5316

RESULTS OF THE WATER SAMPLING OF WELL

10/25/93

**DOE-0080-94
DOE-FN/CITIZEN
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LETTER**



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

OCT 25 1993

DOE-0080-94

Mrs. Joan Pottenger
 [REDACTED]

Dear Mrs. Pottenger:

The Fernald Environmental Restoration Management Corporation (FERMCO), 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 month of September 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 Site Environmental Report.

| <u>Sampling Date</u> | <u>Uranium Concentration</u> | |
|--|------------------------------|----------------|
| | <u>(ppb)</u> | <u>(pCi/L)</u> |
| (Kitchen Tap) October 2, 1993 | 2.7 | 1.8 |
| (Reverse osmosis filter) October 2, 1993 | <0.1 | <0.1 |
| (Outside Tap) October 2, 1993 | 5.1 | 3.4 |

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 concentrations in your reverse osmosis and water softener samples are within this limit. The uranium concentration in your well sample continues to indicate concentrations of uranium above the background range expected for this part of the country. 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 Wally Quiader by phone (648-3137) at your convenience.

Sincerely,

Ken
Kenneth L. Morgan, Director
Public Information

FN:Quaider