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RESULTS OF THE WATER SAMPLING OF WELL

09/20/91

**DOE-2030-91
DOE-FSO/CITIZEN
2 LETTER**



Department of E
 Fernald Environmental Management Project
 P.O. Box 392705
 Cincinnati, Ohio 45239-2705
 (513) 762-6000

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DOE-2030-91

SEP 20 1991

Mr. Melvin Schmidt
 [Redacted Address]

Dear Mr. Schmidt:

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 wells and others in the area as part of our continuing environmental monitoring program. 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 June 1991 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> (Old Well) | <u>Uranium Concentration</u> | |
|------------------------------------|------------------------------|----------------|
| | <u>(ppb)</u> | <u>(pCi/L)</u> |
| June 27, 1991 | 160 | 108.16 |
| (New Well) | | |
| June 27, 1991 | 0.2 | 0.14 |
| (House Well) | | |
| June 27, 1991 | 1.6 | 1.08 |

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 (0.068 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 (0.068 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 the samples taken from the new well and the house well at [REDACTED] is well below this limit and is within the range expected for naturally-occurring background uranium concentrations in this part of the country. However, the uranium concentration in the sample taken from the old (shallow) well at [REDACTED] was higher than the range expected for naturally-occurring background uranium concentrations in this part of the country. The results are consistent with those obtained and reported to you during the previous periods. No significant change in the reported levels is apparent.

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 Quaider by phone (738-6160) at your convenience.

Sincerely

A large, stylized handwritten signature in black ink, appearing to read 'R. E. Tiller'. The signature is written over the typed name and title.

R. E. Tiller
Manager

FO:Quaider