

DEC 20 1985

Minnesota Pollution Control Agency  
ATTN: Mr. Douglas N. Day  
Solid and Hazardous Waste Division  
1935 West County Road B2  
Roseville, MN 55223-2785

Gentlemen:

This letter is in response to your November 21, 1985 request for environmental sampling data compiled by the NRC for the Twin Cities Army Ammunition Plant (TCAAP) in New Brighton, Minnesota. Enclosed are results from the two samplings performed by the NRC in August and September 1985 in conjunction with Federal Cartridge Corporation (FCC). Of the nine samples taken in August, six were water samples taken from the TCAAP sewage system, one was a water sample from Well #2, and two were soil samples from leachate site G. The September sampling was comprised of 29 water samples taken from monitoring wells on and near the TCAAP site. All sample analyses were performed by the Department of Energy's Idaho Operations office.

The NRC expects to issue a report in January 1986 detailing our assessment of the radiological conditions at TCAAP and any proposals for further action. A copy of our report will be sent to the Minnesota Pollution Control Agency. Our preliminary analyses of drinking water data show all samples, except well S54AU1, to be well within NRC and EPA standards (10 CFR 20, Appendix B and 40 CFR 141.15). Re-analyses of this well sample is currently being done. We will inform you of the results.

If you have any further questions regarding this matter, please contact me at (312) 790-5500.

Sincerely,

*W. L. Axelson*  
W. L. Axelson, Chief  
Nuclear Materials Safety, and  
Safeguards Branch

Enclosures:

- 1. Attachment 1 - August 1985  
Samples
- 2. Attachment 2 - September 1985  
Samples

RIII  
*[Signature]*  
Lynch/jl  
12/1/85

RIII  
*[Signature]*  
Wiedeman  
12/20/85

RIII  
*[Signature]*  
Axelson  
12/20/85

A = Gross Alpha  
 B = Gross Beta  
 G = Gamma Scan

August 1985 Samples

<u>Location</u>	<u>Results (uCi/ml)</u>	<u>Isotope</u>
1. Manhole (sewage) N3 (Honeywell Bldg. 502)	A = 1.46 ± 0.12 E-6 G = 9 ± 4 E-8	Cs137
2. Manhole (sewage) B11 (Bldg. 502)	A = 2.8 ± 0.5 E-9 G = 6 ± 5 E-8 G = 10 ± 4 E-7	Cs137 K40
3. Manhole (sewage) D9-1 (3-M Bldg. 590)	B = 1.4 ± 0.7 E-8 G = 3 ± 5 E-8	Cs137
4. Manhole (sewage) D (3-M Bldg. 675)	B = 8 ± 7 E-9 G = 6 ± 4 E-8	Cs137
5. Manhole (sewage) E-1 (Bldg. 575)	B = 5.4 ± 0.2 E-7 B = 9.1 ± 0.9 E-8 G = 5.0 ± 0.6 E-7	Sr90 Cs137
6. Sewage Plant (Bldg. 118)	A = 9.5 ± 1.1 E-9 G = 5 ± 3 E-8 G = 2.2 ± 0.7 E-7	Cs137 Pb214
7. Well #?	G = 2 ± 3 E-8	Cs137
8. Soil, Leachate Site G	(uCi/g) G = 2.45 ± 0.15 E-6 G = 1.4 ± 0.2 E-5 G = 10 ± 10 E-6 G = 7.6 ± 1.4 E-7 G = 5 ± 2 E-7 G = 2 ± 1 E-7	Cs137 K40 Pa234 Pb212 Pb214 U235
9. Soil, Leachate Site C	C = 3 ± 2 E-7 C = 1.06 ± 0.09 E-6 G = 1.27 ± 0.12 E-5 G = 1 ± 4 E-6 G = 5.7 ± 0.9 E-7 G = 8.0 ± 1.1 E-7 G = -1 ± 7 E-8	Ac228 Cs137 K40 Pa234 Pb212 Pb214 U235

A = Gross Alpha  
 B = Gross Beta  
 G = Gamma Scan

September 1985 Samples

<u>Location</u>	<u>Results (uCi/ml)</u>	<u>Isotope</u>
1. Monitoring Well S1U3	A = 2.6 ± 0.4 E-9 B = 8 ± 6 E-9 G = 5 ± 3 E-8 G = 1.3 ± 0.6 E-7	Cs137 Pb214
2. Monitoring Well S3U3	A = 2.6 ± 0.4 E-9 B = 5 ± 6 E-9 G = -1.0 ± 3.9 E-8 G = 1.4 ± 0.6 E-7	Cs137 Pb214
3. Monitoring Well S75U3	A = 9.3 ± 1.1 E-9 B = 2.5 ± 1.2 E-8 G = -3 ± 3 E-8 G = 1.8 ± 0.5 E-7 G = 1.7 ± 0.7 E-7	Cs137 Pb212 Pb214
4. Monitoring Well S78U3	A = 1.2 ± 0.3 E-9 B = 4 ± 6 E-9 G = 3 ± 3 E-8	Cs137
5. Monitoring Well S3L3	A = 2.1 ± 0.4 E-9 B = 4 ± 6 E-9 G = 5 ± 3 E-8 G = 2.5 ± 0.6 E-7	Cs137 Pb214
6. Monitoring Well S1L3	A = 9 ± 2 E-10 B = 4 ± 6 E-9 G = -3 ± 4 E-8	Cs137
7. Monitoring Well S20U4	A = 1.1 ± 0.3 E-9 B = 6 ± 6 E-9 G = -2 ± 4 E-8	Cs137
8/9. Monitoring Well S18U3	A = -1 ± 3 E-10 B = 3 ± 5 E-9 G = 1.1 ± 0.3 E-6 G = -2.5 ± 1.5 E-8	Be7 Cs137
10. Monitoring Well S18L3	A = 1.0 ± 0.2 E-9 B = 6 ± 6 E-9 G = 2 ± 3 E-8 G = 1.8 ± 0.7 E-7	Cs137 Pb214

11. Monitoring Well S94U3	A = $1.0 \pm 0.4 \text{ E-9}$ B = $4 \pm 7 \text{ E-9}$ G = $-1.2 \pm 1.8 \text{ E-8}$ G = $1.3 \pm 0.4 \text{ E-6}$	Cs137 Pb214
12. Monitoring Well WF1U3	A = $1.7 \pm 0.3 \text{ E-9}$ B = $4 \pm 6 \text{ E-9}$ G = $-5 \pm 3 \text{ E-8}$ G = $7 \pm 3 \text{ E-7}$ G = $2.4 \pm 0.6 \text{ E-7}$	Cs137 K40 Pb214
13. Monitoring Well S23U3	A = $2.8 \pm 0.4 \text{ E-9}$ B = $1.0 \pm 0.6 \text{ E-8}$ G = $3 \pm 3 \text{ E-8}$	Cs137
14. Monitoring Well S22U3	A = $1.2 \pm 0.3 \text{ E-9}$ B = $3 \pm 6 \text{ E-9}$ G = $-4 \pm 3 \text{ E-8}$	Cs137
15. Monitoring Well S79U3	A = $2.5 \pm 0.4 \text{ E-9}$ B = $4 \pm 6 \text{ E-9}$ G = $-1 \pm 3 \text{ E-8}$	Cs137
16. Monitoring Well S26U3	A = $6 \pm 2 \text{ E-10}$ B = $5 \pm 6 \text{ E-9}$ G = $1.2 \pm 3.4 \text{ E-8}$	Cs137
17. Monitoring Well S29U3	A = $1.0 \pm 0.4 \text{ E-9}$ B = $7 \pm 6 \text{ E-9}$ G = $-1.4 \pm 2.7 \text{ E-8}$	Cs137
18. Monitoring Well S74PJ	A = $2.4 \pm 0.4 \text{ E-9}$ B = $5 \pm 6 \text{ E-9}$ G = $9 \pm 3 \text{ E-7}$ G = $-2 \pm 3 \text{ E-8}$	Be7 Cs137
19. Monitoring Well S77L3	A = $1.7 \pm 0.3 \text{ E-9}$ B = $6 \pm 6 \text{ E-9}$ G = $2 \pm 3 \text{ E-8}$	Cs137
20. Monitoring Well S77U3	A = $4 \pm 3 \text{ E-10}$ B = $1.1 \pm 0.7 \text{ E-8}$ G = $-10 \pm 3 \text{ E-8}$ G = $1.1 \pm 0.4 \text{ E-7}$	Cs137 Pb214
21. Monitoring Well S78L3	A = $1.2 \pm 0.3 \text{ E-9}$ B = $0 \pm 5 \text{ E-9}$ G = $1.4 \pm 3.1 \text{ E-8}$	Cs137
22. Monitoring Well S7U3	A = $1.9 \pm 0.3 \text{ E-9}$ B = $2 \pm 6 \text{ E-9}$ G = $1 \pm 4 \text{ E-8}$	Cs137

23. Monitoring Well S17M3	A = $5.0 \pm 0.6 \text{ E-9}$ B = $4 \pm 6 \text{ E-9}$ G = $1 \pm 3 \text{ E-8}$	Cs137
24. Monitoring Well S54AU1	*A = $1.07 \pm 0.15 \text{ E-7}$ B = $2.1 \pm 0.4 \text{ E-7}$ G = $-2 \pm 3 \text{ E-8}$ G = $1.6 \pm 0.7 \text{ E-7}$	Cs137 Pb214
25. Monitoring Well T1U3	A = $4.4 \pm 0.6 \text{ E-9}$ B = $1.5 \pm 0.6 \text{ E-8}$ G = $-7 \pm 4 \text{ E-8}$	Cs137
26. Monitoring Well T2U4	A = $7.1 \pm 0.8 \text{ E-9}$ B = $1.3 \pm 0.6 \text{ E-8}$ G = $1.2 \pm 1.5 \text{ E-8}$	Cs137
27. Monitoring Well T6L3	A = $2.7 \pm 0.4 \text{ E-9}$ B = $6 \pm 6 \text{ E-9}$ G = $-5 \pm 3 \text{ E-8}$	Cs137
28. Monitoring Well PD2	A = $5.3 \pm 0.7 \text{ E-9}$ B = $8 \pm 6 \text{ E-9}$ G = $0 \pm 4 \text{ E-8}$	Cs137
29. Monitoring Well PD3	A = $8.8 \pm 1.3 \text{ E-9}$ B = $3.3 \pm 1.2 \text{ E-8}$ G = $2 \pm 4 \text{ E-8}$	Cs137

\* Well S54AU1 is not a deep well (10 to 30 feet deep); therefore, this sample is not considered drinking water or indicative of sampling of the aquifer. This sample is being rechecked for accuracy and/or cross contamination from other samples.