

Post Office Box 117 ... Oak Ridge, Tennessee 37831-0117

Energy/ Environment Systems Division

March 26, 1990

Ms. Elizabeth Ullrich Region I Nuclear Regulatory Commission 475 Allendale Road King of Prussia, PA 19406

Subject: RESULTS OF ROYERSFORD SAMPLE ANALYSES

Dear Ms. Ullrich:

Attached are the results of analyses on a Royersford sludge sample, collected January 11, 1990. We have provided several dozen containers to the Treatment Plant and expect to begin receiving additional samples within the next month or so.

You may contact me at FTS 626-3305 if you have any questions regarding these data.

Sincerely,

James D. Berger, Director Environmental Survey and

Site Assessment Program

JDB:jls

Attachment

cc: C. Haughney, NRC/6H3

G. LaRoche, NRC/6H3

D. Tiktinsky, NRC/6A4

V. Tharpe, NRC/6H3

## RADIONUCLIDE CONCENTRATIONS IN SAMPLE FROM SECONDARY DIGESTOR ROYERSFORD, PENNSYLVANIA

Radionuclide	Radionculide Concentration (pCi/g or Solids)
	Sludge (collected 1/11/90)
	(6.1% solids)
Cr-51	<27.5
Mn-54	$16.3 \pm 7^{a}$
Co-58	$7.3 \pm 4.2$
Fe-59	$9.3 \pm 8.6$
Co-60	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Zn-65	318 + 15
Sr-90	10.5 + 0.4
Nb-95	<5.1
Zr-95	<8.8
Ag-110m	<4.6
Sb-125	<10.7
Cs-134	5.3 <u>+</u> 2.5
Cs-137	$44.3 \pm 3.3$
U-234	3.2 ± 0.2
U-235	$0.1 \pm 0.1$
· U-238	$1.7 \pm 0.1$
Pu-238	<0.1
Pu-239/240	0.2 <u>+</u> 0.1

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<sup>&</sup>lt;sup>a</sup>Uncertainties represent the 95% confidence levels, based only on counting statistics; additional laboratory uncertainties of  $\pm$  6 to 10% have not been propagated into these data.