Oak Ridge

 Associated
 Post Office Box 117

 Universities
 Oak Ridge. Tennessee 37831-0117

Energy/ Environment Systems Division

January 11, 1990

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

Subject: RESULTS OF ROYERSFORD SAMPLE ANALYSES - ADDITIONAL DATA

Dear Ms. Ullrich:

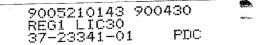
We have completed the strontium 90, uranium, and plutonium analyses on the samples of secondary digestor sludge, for which other analytical data were provided in Table 2 of my December 14, 1989 transmittal. The results are:

Radionculide <sup>a</sup>	Radionuclide Concentration (pCi/g of Solids)	
	Sludge (5.7% solids) (10/23/89)	Dewatered Sludge (29.3% solids) (10/24/89)
Sr-90	16.4 <u>+</u> 0.5	16.7 + 0.7
U-234	$3.5 \pm 0.1$	3.6 + 0.2
U-235	0.1 + 0.1	0.1 + 0.1
U-238	1.9 + 0.1	1.8 + 0.1
Pu-238	0.1 + 0.1	0.1 + 0.1
Pu-239/240	$0.1 \pm 0.1$	0.1 + 0.1

<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.

Table 1 in my December 14 correspondence did not include the data on the percent solids content of the samples; those values are:

Sample Date	<pre>% Solids</pre>
8/15	- 2.7
8/16	3.8
8/17	4.0
8/18	7.6
8/21	3.0
8/22	6.6
8/23	3.9



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Data which were previously reported for pressed, dewatered sludge cake (Table 3 in the June 15, 1989 and July 27, 1989 correspondence) are in units of pCi/g of sample, as received - not pCi/g of solids. The solids content of those samples ranged from 17.8 to 32.6%; solids content on the individual samples can be provided, if needed for your files or calculations.

If you need any additional information, please contact me at FTS 626-3305.

Sincerely, ; <del>;</del> · enner

James D. Berger, Director Environmental Survey and Site Assessment Program

JDB:jls

- cc: G. Sjoblom, NRC/NMSS (6H3)
  - G. LaRoche, NRC/NMSS (6H3)
  - D. Tiktinsky, NRC/NMSS (6A4)
  - V. Tharpe, NRC/NMSS (6H3)