

ORISE

OAK RIDGE INSTITUTE FOR SCIENCE AND EDUCATION

ENERGY/ENVIRONMENT SYSTEMS DIVISION

March 2, 1994

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

**SUBJECT: DATA RESULTS FOR INTERSTATE NUCLEAR SERVICES
(ROYERSFORD, PA) SAMPLES (RFTA 94-10)**

Dear Ms. Ullrich:

DOCKET # 30-20934

Attached are the results of analyses, performed on samples associated with Interstate Nuclear Services operations in Royserford, PA. Radionuclides quantified by gamma spectrometry are those which have been identified at significant levels by past analyses. Gross alpha/beta analysis was only performed on the liquid sample; ESSAP does not have a procedure for such analyses on solid samples.

If you have any questions regarding this data, please contact me at (615) 576-2908.

Sincerely,



Michele R. Landis
Project Manager
Environmental Survey and
Site Assessment Program

MRL:ttc

Enclosure

cc: ~~T. Mo, NRC/NMSS, 4E4~~
D. Tiktinsky, NRC/NMSS, 6E6
J. Kottan, NRC/Region I
J. Beck, ESSAP
J. Berger, ESSAP
E. Abelquist, ESSAP
PMDA, NRC, 6E6
File/244

Central Files

210013

9403230055 940302
REG1 LIC30
37-23341-01 CF

JFK
11

P. O. BOX 117, OAK RIDGE, TENNESSEE 37831-0117

**RADIONUCLIDE CONCENTRATIONS
IN SAMPLES FROM
INTERSTATE NUCLEAR SERVICES
ROYERSFORD, PENNSYLVANIA**

| Radionuclide | Concentration (pCi/l) | |
|--------------|-------------------------------|-------------------------|
| | Sludge-Manhole 2 ^a | Water-Manhole 2 |
| gross alpha | N/A | <4.8 |
| gross beta | N/A | 69.3 ± 4.9 ^b |
| Cr-51 | <2,400 ^c | <350 ^c |
| Mn-54 | 2,846 ± 55 | 23 ± 13 |
| Co-58 | 6,960 ± 120 | <15 |
| Fe-59 | 450 ± 190 | <51 |
| Co-60 | 6,869 ± 72 | 37 ± 10 |
| Zn-65 | 2,380 ± 120 | <19 |
| Sr-90 | 22.8 ± 6.0 | <8.7 |
| Nb-95 | 480 ± 170 | <34 |
| Zr-95 | 210 ± 110 | <26 |
| Ag-110m | 48 ± 22 | <7.9 |
| Sb-125 | 77 ± 37 | <18 |
| Cs-134 | 5,599 ± 55 | <6.9 |
| Cs-137 | 12,900 ± 80 | 14.6 ± 6.9 |

^aSample contains 6.8% solids.

^bUncertainties represent the 95% confidence level, based only on counting statistics.

^cRelatively high detection sensitivity limit is the result of large decay correction for period between collection and analysis.

N/A - Gross alpha/beta analysis not performed on solid sample.