

R2-B45

ORISE
OAK RIDGE INSTITUTE FOR SCIENCE AND EDUCATION

February 14, 1996

Dr. William B. Gloerson
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW
Suite 2900
Atlanta, GA 30323-0199

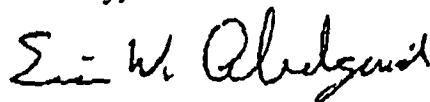
**SUBJECT: DATA RESULTS FOR LIQUID EFFLUENT COMPOSITE SAMPLE FROM
WESTINGHOUSE ELECTRIC COMPANY, COLUMBIA, SOUTH
CAROLINA (RFTA #96-6)**

Dear Dr. Gloerson:

Attached are the analytical results for gross alpha/beta activities performed on one water sample from Westinghouse Electric Company, in Columbia, South Carolina (Table 1). Table 2 provides the results of alpha spectrometry analyses performed for isotopic uranium activity. The results of the uranium spectrometry indicate that the contaminant is enriched uranium.

If you have any questions regarding this data, please call me at (423) 576-3740 or W. L. (Jack) Beck at (423) 576-5031.

Sincerely,



Eric W. Abelquist
Project Leader/Health Physicist
Environmental Survey and
Site Assessment Program

EWA:tsf

Attachment

cc: R. Uleck, NRC/NMSS/TWFN 7F27
D. Tiktinsky, NRC/NMSS/TWFN 8A23
W. Beck, ORISE/ESSAP
File/611

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TABLE 1

**GROSS ALPHA/BETA ACTIVITY IN LIQUID EFFLUENT
WESTINGHOUSE ELECTRIC COMPANY
COLUMBIA, SOUTH CAROLINA**

Sample Location	Gross Alpha ($\mu\text{Ci/ml}$)	Gross Beta ($\mu\text{Ci/ml}$)
Westinghouse	$(1.22 \pm 0.18) \text{ E-7}^a$	$(8.5 \pm 1.3) \text{ E-8}$

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

	<u>ratio</u>	<u>Resolution</u>	<u>Comparison</u>
$\frac{W}{NRC}$	0.94	7	Agree

TABLE 2

**ISOTOPIC URANIUM ACTIVITY IN LIQUID EFFLUENT
WESTINGHOUSE ELECTRIC COMPANY
COLUMBIA, SOUTH CAROLINA**

Sample Location	Radionuclide Concentration ($\mu\text{Ci/ml}$)		
	U-234	U-235	U-238
Westinghouse	$(1.58 \pm 0.12) \text{ E-7}^a$	$(8.3 \pm 1.6) \text{ E-9}$	$(2.83 \pm 0.31) \text{ E-8}$

Σ
 1.95×10^{-7}

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

$\frac{W}{NRC}$:	0.091 E-6	0.002 E-6	0.014 E-6	$\Sigma = 1.107 \times 10^{-7}$
Results		9.1 E-8	2 E-9	1.4 E-8	
Ratio	:	0.58	0.24	0.50	
$\frac{W}{NRC}$					
Resolution	:	13	5	9	