

050-00322

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OAK RIDGE INSTITUTE FOR SCIENCE AND EDUCATION

March 13, 1995

Mr. David Fauver
Division of Waste Management-NMSS
U. S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Rockville, MD 20852

SUBJECT: CORRECTED PAGE FOR THE FINAL REPORT—CONFIRMATORY SURVEY OF THE REACTOR BUILDING AND PHASE 4 SYSTEMS, SHOREHAM NUCLEAR POWER STATION, BROOKHAVEN, NEW YORK [DOCKET FILE NO. 50-322]

Dear Mr. Fauver:

In Appendix B of the subject report, the surface activity correction factor for survey unit RB072X01 (Dryer/Separator Storage Pool) was inadvertently omitted from the list that appears on page B-2. Enclosed are five copies of the corrected page for insertion into the those copies of the final report submitted to you with our March 7, 1995 correspondence.

Please contact me at (615) 576-5073 should you have any questions.

Sincerely,

Timothy J. Vitkus
Environmental Project Leader
Environmental Survey and
Site Assessment Program

TJV:daa

Attachment

cc:	R. Uleck, NRC/NMSS/TWFN 7F27	PMDA, NRC/NMSS/TWFN 8A23
	D. Tikitsky, NRC/NMSS/TWFN 8A23	W. Beck, ORISE/ESSAP
	L. Pittiglio, NRC/NMSS/TWFN 7F27	E. Abelquist, ORISE/ESSAP
	R. Nimitz, NRC/Region I	File/273 ESSAP

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(dpm/100 cm²) by dividing the net rate by the 4 π efficiency and correcting for the active area of the detector. The beta activity background count rates for the GM and gas proportional detectors ranged from 15 to 37 cpm and from 100 to 207 cpm, respectively. Beta efficiency factors were 0.17 for the GM detectors and ranged from 0.21 to 0.23 for the gas proportional detectors. The effective window areas for the GM and the gas proportional detectors were 15.5 cm² and 100 cm², respectively.

Surface activity measurements in all confirmatory survey units, except for RB068, RB072 \times 01, RW073 \times 02, RW073 \times 03, and SU001 that exceeded the normal background distribution were corrected for the iron-55 contribution by multiplying the dpm/100 cm² field activity level by a factor of 1.2. For the remaining survey units, correction factors for Fe-55, H-3, and/or Ni-63 were as follows:

RB068, measured dpm/100 cm² times 2.3
 RW073 \times 02, measured dpm/100 cm² times 35.9
 RW073 \times 03, measured dpm/100 cm² times 24.2
 RB072 \times 01 and SU001, measured dpm/100 cm² times 2.6

LIPA based each of these correction factors on the relative concentrations of contaminants in the construction material of the various survey units. The instrument response level at which the detector output could be considered above background was defined as the critical level (L_c). This level was defined for each detector/instrument combination as follows:

$$L_c = \frac{1.96 \sqrt{\frac{\text{Sample count rate}}{\text{Sample count time}} + \frac{\text{Background count rate}}{\text{Background count time}}}}{(\text{Detector Efficiency}) (\text{Detector Geometry})}$$

Removable Activity Measurements

Removable activity levels were determined using numbered filter paper disks, 47 millimeters (mm) in diameter. Moderate pressure was applied to the smear and approximately 100 cm² of