

BROOKHAVEN NATIONAL LABORATORY

ASSOCIATED UNIVERSITIES, INC.

Upton, New York 11973

410143

(516) 345- 4250

Safety & Environmental Protection Division

March 19, 1980

Mr. T. F. McCraw OHER U.S. Department of Energy Washington, D.C. 20545

Dear Tom:

The attached report presents the initial results of our personnel monitoring field trip to Enewetak and Ujelang.

Please call me at FTS 666-4250, or Bob Miltenberger at FTS 666-2503 if you have any questions.

With best regards,

N. A. Greenhouse Project Director, BNL Marshall Islands Radiological Safety Program

NAG:lm cc: A. Hull H. Pratt W. Robison B. Wachholz

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body counter with minimal loss of system sensitivity relative to the bed geometry. Smaller subjects have more of their body within the solid angle while larger subjects have somewhat less. Figures 1 and 2 illustrate the counting geometry used and physical arrangement of one side of the whole body counting trailer.

The chair body counters were calibrated for three geometries 1) an adult standard man, 2) an average Marshallese adolescent and 3) an average

and weight of Marshallese adolescents and juveniles was the former Bikini Atoll population. Gamma spectra obtained at Enewetak Atoll and Ujelang Atoll were analyzed using the calibration standards which best matched the sex, height and weight of the individual subject.

Table 1 summarizes the physiological and radiological data obtained from the February field trip. Statistical analysis performed on the mean Cs-137

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N. A. Greenhouse R. S. Miltenberger

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