



BROOKHAVEN NATIONAL LABORATORY  
 ASSOCIATED UNIVERSITIES, INC. UPTON, N. Y. 11973

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SAFETY & ENVIRONMENTAL PROTECTION DIVISION

TELEPHONE: (516) 345-4250

October 27, 1976

Mr. T. F. McGraw  
 USERDA/SSC  
 Washington, D. C. 20545

Dear Tommy:

The following is a preliminary report of the external radiation survey results for Wotja, Ailuk, Utirik, and Rongelap Atolls. Other details of the environmental survey are included in my trip report to PASO (attached).

I selected (arbitrarily) Wotja Island and Ailuk Island as gamma background "controls". At both of these locations, the average of all pre-survey ion chamber gamma readings was  $3.8 \pm 0.4$   $\mu$ R/hr. This corresponds to an annual whole-body gamma (plus cosmic ray) exposure of 33 mR.

The average exposure rates at Utirik, Ailuk are listed below.

Island	Average Exposure Rate ( $\mu$ R/hr)	Annual Exposure (mR)
Utirik	4.1	36
Eorukku	4.2	37
Aon	4.1	36

At Rongelap surveys were made on 2 islands in the northwest corner of the atoll, Kabella Island in the northeast corner, Eniaetok Island midway along the east coast, and Rongelap Island in all locations but Rongelap the external gamma fields over the islands were too heterogeneous to permit an "island average" exposure rate with this preliminary view of the data. Rongelap Island, however, was sufficiently uniform at the village (east end) to estimate an average exposure rate of 63 mR/yr, which is about twice (normal) background exposure from unaminated Marshalls, and slightly less than the annual average exposure on Long Island.

