



UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON, D.C. 20545

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may 31 1968

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MEMORANDUM FOR CHAIRMAN SEABORG  
COMMISSIONER RAMEY  
COMMISSIONER TAPE  
COMMISSIONER JOHNSON

THROUGH GENERAL MANAGER Donald C. Kull for

SUBJECT: RESULTS OF THE ANNUAL MEDICAL SURVEY OF THE MARSHALLESE  
PEOPLE EXPOSED TO FALLOUT IN 1954

The subject survey carried out during March 1968 resulted in the detection of two more cases of thyroid nodules in children who were exposed to fallout on Rongelap when they were less than ten years of age. This brings the total number of cases of thyroid abnormalities in the 67 living Rongelapese to 21; of the 19 children in the more heavily exposed group who were less than 10 years of age at time of exposure, 17, or 90%, have developed thyroid abnormalities.

It was decided that 4 cases should be brought to the Brookhaven National Laboratory for complete medical evaluation and, if necessary, surgery. Preparations for their transportation and reception are now taking place. Three are people having thyroid nodules which had not responded to thyroid hormone therapy. The fourth is a 29-year-old woman with an unidentified tumor in the neck lateral to the gland. In the past, 11 Marshallese have undergone surgery; one woman exposed as an adult was found to have cancer of the thyroid, while 10 who were exposed when less than 10 years of age had benign adenomatous goiters.

The incidence of thyroid problems in this population is tabulated on the attached sheet.

John R. Totter  
Director  
Division of Biology and Medicine

Attachment:

Thyroid Nodules Including Hypothyroidism Dec: Cong. Rel. (2)  
in the Marshallese Populations as of >OGM (2)  
March 1968 Secy (2)

AGMRD  
PI  
BMA  
ADMHR

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Thyroid Nodules Including Hypothyroidism in the  
 Marshallese Populations as of March 1968

<u>Persons Exposed on</u>	<u>Age at Exposure</u>	<u>Whole Body Gamma Dose (rads)</u>	<u>Estimated Added Thyroid Dose from I*, (rads)</u>	<u>No. in Group</u>	<u>No. and Percent with Nodules</u>
Rongelap Island	<10	175	700 - 1400	19	17 (90%)
	>10	175	160	36	2 (5.5%)
Ailingnae Island	<10	69	275 - 550	6	0
	>10	69	55	8	1 (12.5%)
Utirik Island	<10	14	55 - 110	40	0
	>10	14	15	59	2 (3.4%)
Control Marshallese	<10	61	0	0	0
	>10	133	0	0	3 (2.3%)

\* Estimates of the doses to the thyroids of the Rongelapese were recomputed by R. James and J. Gofman, UCRL #12273. December, 1964. Estimates of the thyroid doses of the Ailingnae and Utirik people were by proportionality to the respective whole body gamma doses.