Mr. Tom Dunmire
Staff Consultant
Committee on Interior
and Insular Affairs
House of Representatives

## Dear Mr. Dunmire:

The enclosed comments on the "Report on Rongelap and Utirik to the Congress of Micronesia - Medical Aspects of the Incident of March 1, 1954, by the Special Joint Committee Concerning Rongelap and Utirik Atolls" were prepared by my staff in response to your telephone inquiry of May 3.

If there should be questions concerning our staff comments, please let us know.

## Sincerely,

Original signed by James L. Liverman

James L. Liverman, Director Division of Biomedical and Environmental Research

## Enclosure:

As stated

bcc: Cong. Rel. (3)

Liverman

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AEC Staff Comments on the Report on Rongelap and Utirik to the Congress of Micronesia Prepared by the Special Joint Committee Concerning Rongelap and Utirik Atolls

These comments are directed primarily to the discussion of medical aspects, which form the primary topic of consideration in the Report. The comments are not intended as either a review or critique of the Report but as a means of correcting misunderstandings or questionable interpretations.

- 1. The Committee expressed concern over the radiation exposure incurred by the people of Rongelap subsequent to their return to their atoll (pp. 101-103). The return to the atoll was approved after radiological surveys indicated that the residual levels of radioisotopes on the atoll would not be expected to result in concentrations of isotopes in the inhabitants above acceptable levels. Monitoring of the people at annual intervals confirmed that values of body burdens of radioisotopes increased after return to the atoll but, nevertheless, remained well below permissible limits. The Government's decision to approve the return of the people to the atoll took into account both the wishes of the people to return and their radiological safety.
- 2. With regard to genetic studies (pp. 105-108), the reluctance to perform such studies on small groups of people is due in part to the concern, based on past experience, that findings that are not statistically significant but are suggestive may create the false impression of either an effect or no effect when the opposite may be true. With small numbers, statistical variation may produce a spurious result that would be nullified in a larger sample. That was the reason for deciding against a genetic study on the Marshallese at an earlier date. However, in response to the wishes of the Committee, the question of a genetic study is being considered again.
- 3. Regarding miscarriages, stillbirths and fertility (pp. 108-110), both observation and documentation of such events is so poor that no reliable data could be assembled. Furthermore, there is no information on the incidence of miscarriages and stillbirths in unexposed persons on comparable islands who might serve as a reference group. For that reason the survey teams could reach no conclusions about the effect of the fallout on miscarriages and stillbirths. The lack of data also applies to sterility. Tests of spermatogenesis were not conducted out of deference to cultural patterns.

- 4. Delays in the treatment of retarded growth and development due to hypothyroidism (pp. 110-113) were probably the result of two factors. One was difficulty in confirming the existence of retardation because of a lack of standard growth and development curves in the Marshallese population. The second was a peculiarity (unrelated to radiation exposure) in the chemical compounds that bind iodine in the blood of the Marshallese, which obscured the diagnosis of hypothyroidism when it was originally suspected. When the diagnosis of hypothyroidism was made, treatment of the retarded individuals was started promptly.
- 5. As the report indicates (pp. 114-116), the thyroid nodules will require the continued surveillance provided by the medical survey team. The accidental removal of parathyroid tissue occurs in a fraction of cases of thyroid surgery when the best thyroid surgeons operate. It is unfortunate that this complication occurred in the case described in the Report since it usually does require continued therapy for the hypoparathyroidism that follows.
- 6. It would be inappropriate to discuss here conflicting views of the abortive visit of a Japanese team in December 1971 and the unsuccessful survey by the medical team led by Dr. R. A. Conard, Brookhaven National Laboratory, in March 1972 (pp. 121-132). Fortunately, the atmosphere cleared sufficiently to permit a completely satisfactory medical survey in September 1972. At that time, consultants from Japan, Great Britain and the U. S. Public Health Service, chosen by the Special Joint Committee and the High Commissioner, accompanied the survey team along with members of the Special Joint Committee. The reports of consultants are included in Appendix 1 of the Committee Report under consideration here. The consultants commented favorably on the work of the survey team.

This section of the Report also comments on the need for radiological surveys of Bikini and Eniwetok Atolls. Such surveys have been conducted, will be repeated at intervals, and will be extended to include a resurvey of Rongelap and Utirik Atolls. In this and other sections, there are references to difficulties of the survey team in communicating with the Marshallese because of a language barrier and differences in customs. Dr. Conard, who is a gentle and compassionate person, has sought to overcome these difficulties in the past and enjoys good relations with the inhabitants during the survey visits. He stated recently that he welcomes the opportunity to rectify any previously unarticulated misunderstandings and considers this airing of grievances desirable.

- 8. With regard to the question of "guinea pigs" or victims of circumstances (pp. 133-153), no responsible government officials or scientists would undertake to expose human populations such as the Marshallese or the U. S. servicemen on Rongerik to damaging amounts of radiation to gain scientific information. On the other hand, when exposures have occurred, whether they be in Japan, the Pacific, in watch dial painters or in criticality accidents in the nuclear industry, scientific observations have been made and studies have been carried out. The benefits from these observations and studies sometimes accrue to the individuals themselves and at other times to persons who will be exposed in the future.
- 9. Relative to AEC influence on the medical survey team, the AEC has a contractual arrangement with Brookhaven National Laboratory to conduct surveys in the Marshall Islands (pp. 143-144). This arrangement provides a means of guaranteeing that the surveys will be performed reliably and with maximal continuity. Almost 20 years of surveys that have been led by the same individual and have enjoyed the respect of the scientific community bear testimony to the success of this arrangement. The AEC neither interferes with the conduct of the surveys nor with the content of the publications.
- 10. Medical judgment was exercised in the decision not to use antibiotics prophylactically during the period of acute effects after the detonation and also in the timing of the start of thyroid hormone therapy (pp. 144-149). The decisions were made by competent physicians, who had a sincere concern for the welfare of the patients, and were in keeping with accepted medical practice. Since medicine is not an exact science, medical judgment is frequently subject to challenge, especially in hindsight. In spite of the possibility that other physicians might have decided these matters differently, there seem to be no adequate grounds for challenging the competence and sincerity of these physicians or of their judgment in these and other instances cited in the Report.
- 11. Concerning recommendations (pp. 173-175), the AEC has under study a program of increased medical surveillance including the presence of a physician in the Islands like Dr. Knud Knudsen of Brookhaven National Laboratory if a suitable person can be found. Statutory authorities and responsibilities affect the role that the AEC can play in the medical program for the Marshallese. Within those limitations the AEC will cooperate as much as possible with the Government of the Trust Territory and the Congress of Micronesia in promoting the health of the people.

The Brookhaven medical survey team will seek to improve communication with the inhabitants of the atolls, especially with regard to their medical findings and health problems. This would include cooperation in the use of bilingual health record booklets that the Congress plans to develop for distribution to the people.

## Summary:

In spite of the fact that the AEC has been assigned only research responsibilities in the biomedical fields, the Commission has sponsored medical surveillance and incidental treatment under the supervision of Dr. Conard that have benefited the inhabitants very substantially in addition to providing scientific observations of considerable value. The medical survey team has been staffed largely by volunteer physicians of international stature. When indicated, patients with thyroid disease and a case of leukemia have been brought to major medical centers on the mainland for treatment.

The medical surveillance has been handled by sincere, responsible physicians. Conservative statements of findings by the survey teams are in accordance with sound scientific practice. No actions have been taken to advance science at the expense of the inhabitants. The people who were exposed at Rongelap and Utirik deserve the best efforts of dedicated medical specialists, which they have received.

We hope that the people will continue to avail themselves of the health benefits to be gained from the services of these medical experts.