

Mr. Dixy Lee Ray
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will you favor us with a copy of the recommendations and conclusions for human habitation based upon such a study? The radiation figures we have do not appear to take possible internal radiation into account.

4. The Smith and Moore report which we have indicates that the mean background radiation in the village area on Bikini island is 44 micro r/hr. On a yearly basis, this produces an exposure of 375 mr per year. The Smith-Moore report indicates, however, that the village area will be covered with crushed coral, which they say, will cut the mean exposure rate in half. Does the AEC have hard data to support this statement? Similarly, it is said that the concrete floors of the houses will reduce the exposure. We do not doubt that the concrete will reduce the exposure, but how much will it reduce it? Quite clearly an exposure rate of 375 mr per year is more than double the established guidelines for population groups, which is set at 170 mr per year. Rather than speculate on what the exposure levels might be with concrete or coral, we would like to know exactly what the levels are in the areas where the Bikinians will do most of their living. Perhaps surveys that have been done since 1967 show such figures, or, hopefully, the survey just completed by Dr. Conard and others will disclose reliable figures for exposure levels in the village area.

5. Finally, and perhaps most importantly, we hope that the AEC will present the Bikini people with reliable data, opinions, and recommendations based upon the data, in order that they can decide for themselves what risks are acceptable. The decisions that might need to be made, for example, are where to live (Kili or Bikini; if Bikini, which island, and where, on that island); what island at Bikini should be visited, and for how long; what foods should be eaten or avoided, and in what quantity. It appears to be fairly certain that the Bikinians will choose to live on Bikini rather than Kili, even if there is some probability of harmful effect from radiation. To the best of our knowledge, the other questions have not yet been specifically addressed by the Bikinians.

It is, of course, quite difficult to present the questions of possible risks from low dosage radiation in a meaningful, comprehensible, non-alarming manner. Nevertheless, we believe it is important to make the attempt. Our brief study of the area has not led to a clear idea of how the explanation should best be made. In response to a question, Dr. Walter Nervik has informed us that attempts to state probabilities of genetic and/or somatic defects, based on various dosage levels, will not be meaningful when applied to a population as small as 600 people. Mr. Roger Ray, of the AEC Nevada Operations office, has suggested that comparisons of radiation levels at Bikini with the United States or elsewhere will be a useful tool

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in comprehending risks from background radiation. In any case, we believe that it is vitally important to state the risks, however, small, from low dosage radiation, in a manner that is comprehensible to the Bikini people. We are sure that you share this belief, and that the AEC will have constructive ideas as to how to present sophisticated concepts of radiation to a non-technological society such as the Bikini people.

We realize that the above request to state the risks of low dosage radiation in a meaningful manner intrudes somewhat into the controversial area surrounding the threshold or no threshold debate. We do not suggest that we accept or reject either theory. However, as stated by the National Council on Radiation Protection and Measurements, ". . . prudence demands that, even though unproven, the no threshold concept should be used for estimating the maximum deleterious effects of ionizing radiation." (Basic Radiation Protection Criteria, p. 58) What we are saying is that although it may not be standard AEC policy, for the purpose of evaluating and stating the risks to the Bikinians, the AEC should assume the no-threshold theory. At the very least, we request that you evaluate the risks using both threshold and no threshold assumptions.

A number of Kili people may be able to return permanently to Bikini in the next month or so. We do not believe that their return is contingent upon receipt of the information requested in this letter. Nevertheless, it would seem appropriate that a response be prepared as soon as possible. We look forward to receipt of the AEC evaluation of the concerns expressed above.

Sincerely,

HAMLET J. BARRY, III
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By:

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