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September 20, 1982

Dr. William L. Robinson
University of California
Lawrence Livermore Laboratory
P.O. Box 808
Livermore, CA 94550

Dear Bill:

I've reviewed the Marshall Islands Dosimetry Document you sent me, and find nothing that prompts me to register any substantial objections. I note a few minor comments below, primarily to prove that I did look at the document, and to maintain my reputation for always being able to find something to complain about.

Page 1, last line: The phrase "...but do present a long-term source of exposure," should, in my opinion, be deleted, or explained in greater detail. It suggests that there really is a problem with transuranics, but doesn't define this problem. I don't think the subject is addressed anywhere else in the report, which is another reason for considering it inappropriate for the abstract.

Page 14, lines 6-8: The gut transfer factors employed are those of ICRP and are probably the best to use in this document. You should be aware, however, that a higher number might be more appropriate for the very low environmental levels of the Marshall Islands, and that an ICRP task group is presently considering the question. My guess would be that the "ultimate" value for all actinides is apt to be 10^{-3} or 5×10^{-4} .

Page 89, footnote a: I find no explanation in the text of why concentration ratios for ^{241}Am should be assumed to be the same as those for ^{239}Pu , ^{240}Pu . Samples were analyzed for ^{241}Am ; why aren't concentration ratios available?

Page 90, lines 9-11: I'm sure it makes no difference in bottom-line numbers, but wouldn't it have been more scientific to have estimated crab levels on the basis of a crab/soil or crab/coconut concentration ratio?

Page 118, paragraph 3: The idea of showing a comparison of "...the contributions of the various radionuclides to the total dose" is a very good one, but it turns out to be quite useless, as far as transuranics are concerned, when all entries for the transuranics are dashes, with no

difference it would make it, say, you used a gut absorption factor of 10^{-4} instead of 10^{-4} .

That's all I could come up with. I, of course, didn't look at numbers in tables, but everything seemed to be very clearly laid out.

Sincerely,

A handwritten signature in cursive script that reads "Roy".

Roy C. Thompson
Biology & Chemistry Department

RCT:pmb

cc: WJ Bair
BW Wachholz

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DOCUMENT DOES NOT CONTAIN ECI

Reviewed by DG Kreider Date 5/1/97