

House of Representatives  
Committee on Appropriations  
Washington, D.C. 20515

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May 22, 1951

TO:

*Territorial Affairs*

Because of the necessity for editing and printing the hearings at an early date, we ask that the attached transcript of testimony be returned to the Staff Assistant to the Subcommittee as early as you can, but not later than

May 29, 1951

Editorial changes by the witnesses should be held to a minimum and limited to:

1. Changes (in pencil only) of grammatical and other obvious errors; and
2. Additions of statements and information requested and approved by the Subcommittee. (Insertions to be written on one side of a page only).

Note.--Although no changes should be made in Members' remarks, if you observe any typographical or other obvious errors, we would appreciate pencil notes in the margin, or in an accompanying memo, calling them to our attention.

If you cannot prepare the required additional material within the time limitation, please return the transcript within such time with a notation as to when the additional material will be submitted.

Sincerely,

*Keith Mansland*

Clerk and Staff Director

Original

**Committee Hearings**

of the

**U.S. HOUSE OF REPRESENTATIVES**



**OFFICE OF THE CLERK**  
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1 RPTR KNOWLES

2 10:00 a.m.

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6 DEPARTMENT OF THE INTERIOR AND RELATED

7 AGENCIES APPROPRIATIONS FOR 1982

8

9

10 Wednesday, May 13, 1981

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13 OUTSIDE FEDERAL WITNESSES

14 WITNESSES

15 DR. BRUCE WACHHOLZ, OFFICE OF HEALTH AND ENVIRONMENTAL

16 RESEARCH, ~~ACTING ASSISTANT SECRETARY FOR ENVIRONMENTAL~~

17 ~~PROTECTION, SAFETY AND ENERGY PREPAREDNESS~~, DEPARTMENT OF

18 ENERGY;

19 DR. WILLIAM BURR, OFFICE OF HEALTH AND ENVIRONMENT, ACTING

20 ASSISTANT SECRETARY FOR ENVIRONMENTAL PROTECTION, SAFETY AND

21 ~~ENERGY PREPAREDNESS~~, DEPARTMENT OF ENERGY;

22 L. JOE DEAL, CHIEF, ENVIRONMENTAL PROTECTION AND SAFETY

23 ~~BOARD~~, ACTING ASSISTANT SECRETARY FOR ENVIRONMENTAL

24 PROTECTION, SAFETY AND ~~ENERGY~~ PREPAREDNESS, DEPARTMENT OF

25 ENERGY;

26 STEVEN GOTTLIEB, DEPUTY ASSISTANT GENERAL COUNSEL,  
 27 ~~ENVIRONMENTAL PROTECTION, SAFETY AND ENERGY PREPAREDNESS,~~  
 28 DEPARTMENT OF ENERGY;  
 29 JOHN E. DE YOUNG, SENIOR STAFF ASSISTANT INTERN,  
 30 TERRITORIAL AND AFFAIRS; AND  
 31 DANIEL HIGH, ACTING DEPUTY HIGH COMMISSIONER

15 DR. BRUCE M. MANNING, SECRETARY OF HEALTH AND ENVIRONMENTAL  
 16 AFFAIRS, SECRETARY FOR ENVIRONMENTAL  
 SAFETY AND PREPAREDNESS, DEPARTMENT OF

32 Mr. MURTHA. Do we have Dr. Bruce Wachholz?

33 Dr. WACHHOLZ. Yes, sir.

34 Mr. MURTHA. Dr. William Burr and L. Joe Deal, and Mr.  
35 deYoung. Have a seat, Mr. deYoung.

36 Mr. deYoung, if you will introduce your colleagues.

37 Mr. DEYOUNG. Thank you, Mr. Chairman. There are a  
38 number of items on <sup>the</sup> radiation survey, <sup>the</sup> medical program, <sup>and</sup> other  
39 aspects of resettlement of displaced people that will come  
40 up this morning.

41 We have with us the acting Deputy High Commissioner for  
42 the Trust Territory, Mr. Daniel High, who will address some  
43 of the resettlement problems. He is accompanied by his  
44 Budget Officer. There are some backup support witnesses for  
45 the Department of Interior from the Department of Energy. <sup>They</sup>  
46 <sup>are</sup> Dr. Burr, Dr. Wachholz, Mr. Deal and Mr. Gottlieb. They  
47 will be addressing the problems specifically that relate to  
48 radiation.

49 Mr. MURTHA. I understand that you have an opening  
50 statement, is that correct?

51 Mr. DEYOUNG. We have no prepared opening statement. We  
52 are prepared to answer any questions the committee would  
53 like to put to us.

54 Mr. MURTHA. Mr. deYoung, would you provide for the  
55 committee an update of the radiological status of both  
56 Bikini and Enewetak Atolls?

57 Mr. DEYOUNG. Thank you, Mr. Chairman. Dr. Wachholz, of  
58 the Department of Energy, is prepared to present that on  
59 behalf of the government.

60 Dr. WACHHOLZ. Mr. Chairman, I think the committee staff  
61 has been provided with copies of the latest documents that  
62 are available to the Department of Energy.

63 The latest ~~on the Enewetak situation~~ is <sup>THE FINAL DOSE REASSESSMENT</sup> a document, this  
64 ~~particular document, reassessment,~~ which you have, I  
65 believe.

66 Was that provided to the committee?

67 Mr. DEYOUNG. Yes.

68 Dr. WACHHOLZ. And last fall, we provided to the people  
69 of Bikini a ~~status report~~ <sup>ON</sup> the radiological situation  
70 status of Bikini Atoll. This was a follow-on of our earlier  
71 <sup>OF A SIMILAR NATURE REPORTING ON THE RADIOLOGICAL STATUS OF ENEWETAK ATOLL</sup> book, <sup>A</sup> for the Enewetak people.

72 In terms of the dose assessment for various living  
73 patterns and conditions of both atolls, they are discussed  
74 in ~~these~~ THESE DOCUMENTS.

75 In terms of the ~~basic core data~~ <sup>BASIC ENEWETAK</sup>, that is in <sup>THE FINAL</sup> this book for  
76 the Enewetak Atoll, <sup>TOGETHER WITH ITS APPENDICES.</sup> ~~and~~ this will be followed by a similar  
77 document from Lawrence Livermore National Laboratory in  
78 several months, giving the complete <sup>DATA AND</sup> assessment with respect  
79 to Bikini ATOLL.

80 Mr. GOTTLIEB. For the record, would you identify them?

81 Dr. WACHHOLZ. The <sup>FINAL</sup> Enewetak book that I am referring to is <sup>A</sup>

82 entitled "Reassessment of the Potential Radiological Doses<sup>S</sup>  
83 for Residents Resettling Enewetak Atoll," and the two  
84 previous documents to which I made reference are "The  
85 Meaning of Radiation at Bikini Atoll," and ~~a document~~  
86 "The Enewetak<sup>TAK</sup> Atoll Today."

87 Mr. MURTHA. We will keep a copy of those documents for  
88 our files. If you will review and summarize the conclusions  
89 of those studies, please?

90 Dr. WACHHOLZ. The conclusions of these studies are based  
91 solely on <sup>ESTIMATED</sup> radiation doses and do not ~~take whatever~~ <sup>CONSIDER</sup> other  
92 factors one might wish to include in any judgments regarding  
93 the future of these atolls and the people.

94 The statements I will make are based on a comparison with  
95 U.S. radiation exposure limits.

96 With respect to Enewetak, I think you will find that the  
97 latest <sup>ESTIMATED</sup> dose numbers in ~~the~~ <sup>THE</sup> final document are roughly about  
98 10 to 20 percent higher than they were when we printed ~~this~~ <sup>"THE ENEWETAK ATOLL TODAY"</sup>  
99 document a year and a half or two years ago, because of the  
100 greater data base which has become available since that  
101 time.

102 Mr. MURTHA. So there is no increase in actual radiation,  
103 there is only an increase in the accumulation of information  
104 which--

105 Dr. WACHHOLZ. But that increase in information has led  
106 to a recalculation.

107 Mr. MURTHA. I understand.

108 Dr. WACHHOLZ. In which the <sup>ESTIMATED DOSES</sup> ~~dosages~~ themselves are  
109 roughly 10 to 20 percent higher.

110 Mr. MURTHA. And the bottom line, how do they compare  
111 with areas that don't have radiation?

112 Dr. WACHHOLZ. With respect to the southern islands at  
113 Enewetak Atoll, they are well within U.S. exposure  
114 standards. ~~Well below U.S. exposure standards.~~

115 With respect to the island of Enjebi, <sup>IT IS</sup> ~~they are~~ above U.S.  
116 exposure standards. <sup>It</sup> With respect to Bikini Atoll, ~~here~~  
117 ~~again~~ there is only one situation <sup>IN WHICH THE ISLANDS</sup> ~~where they~~ are or could  
118 be within U.S. exposure standards, and that would have a  
119 number of restrictions associated with it, specifically for  
120 the Island of Eneu.

121 <sup>PEOPLE</sup> They <sup>PA</sup> would have to reside solely on Eneu; <sup>or</sup> Approximately  
122 50 percent of their diet would have to be from imported  
123 foods, and there would have to be rather ~~stringent~~  
124 restrictions <sup>on</sup> ~~of~~ visiting ~~with~~ other islands of the atoll,  
125 specifically Bikini Island, <sup>WITH</sup> ~~and~~ no food eaten from Bikini  
126 Island.

127 With those four ~~restrictions~~ <sup>ENEU ISLAND</sup> constraints, ~~one~~ <sup>A</sup> could fall  
128 within the U.S. exposure standards.

129 Mr. MURTHA. Is this a final report? For instance, you  
130 find 15, 20 percent higher radiation levels with new data.  
131 Is it possible that you could <sup>L</sup> ~~could~~ again have the same problem,



132 that more data would increase the amount on the atolls where  
133 there is low radiation?

134 Dr. WACHHOLZ. In terms of the data base which is  
135 currently available, our <sup>SCIENTISTS</sup> people in the laboratory believe  
136 that they have the total data base for both Enewetak and  
137 Bikini at this time.

138 This became complete roughly a year ago or thereabouts,  
139 which led to the increase in the estimates at Enewetak. But  
140 the Bikini numbers should be final. I have been assured of  
141 that.

142 Mr. MURTHA. When will you survey the next time?

143 Dr. WACHHOLZ. Bikini? ~~We probably would survey, per the~~  
144 ~~or~~ (the U.S. Government <sup>PROBABLY</sup> would survey, per the provisions of  
145 Public Law 96-205, <sup>THE ATOLL</sup> at least once every five years, <sup>AT A</sup> minimum.

146 Mr. MURTHA. There is no need to survey the ones where  
147 the radiation is below?

148 Dr. WACHHOLZ. <sup>WITH RESPECT TO</sup> ~~the~~ southern islands of Enewetak, we  
149 really don't see any need to survey those in the same manner  
150 right now. Certainly when the coconut trees mature and  
151 other food crops mature ~~and so on~~, we can see that there  
152 would be some interest in doing some sampling at that time.

153 Mr. MURTHA. Two other questions. One: Are there any  
154 other atolls in the northern Marshalls that you have not  
155 surveyed, or that you have surveyed and you haven't  
156 mentioned the results?

157 Dr. WACHHOLZ. ~~We~~<sup>A</sup> ~~we~~<sup>A</sup> conducted <sup>A</sup> radiological survey of 11 atolls and  
 158 two islands as part of the northern Marshall Islands  
 159 radiological survey. <sup>A</sup> ~~I~~<sup>BUT</sup> would defer <sup>A</sup> to Mr. Deal. <sup>ON THIS MATTER</sup>

160 Mr. DEAL. Thank you. We provided, ~~the other day~~, Mr.  
 161 Chairman, ~~and yesterday~~, the final report of the external  
 162 radiation doses of that survey ~~YESTERDAY~~.

163 There will be a number of copies available in a short  
 164 period of time. We have a second printing.

165 The report <sup>A</sup> of the survey <sup>A</sup> ~~didn't show~~<sup>DOESN'T PRESENT WITH</sup> us any surprises. We  
 166 found the radiation essentially where we expected to find  
 167 it. This survey has provided a guideline for the internal  
 168 dose studies and the things Dr. Wachholz was talking about.

169 So I think we have a very extensive base of information ~~to~~  
 170 <sup>THAT</sup> documents <sup>A</sup> and show <sup>A</sup> the condition of those atolls today, the  
 171 ones that did get radiation and those that didn't.

172 Mr. MURTHA. Why do we have high radiation levels on some  
 173 atolls, and others, we don't? For instance, Enewetak, I  
 174 would have thought, would have been much higher, but it is  
 175 at a satisfactory level. Why is that?

176 Mr. DEAL. It has to do with the conditions of the  
 177 testing at the time. When the weapons testing program was  
 178 going on in the early '50s, ~~I guess~~, and late '40s, there  
 179 were certain atolls that they conducted nuclear tests on.

180 I think there were, I have forgotten exact numbers, but  
 181 there were around 100 ~~shot~~<sup>nuclear tests</sup> in a number of places there, with

182 the bulk of them being <sup>at</sup> Bikini and Enewetak.

183 At Enewetak Atoll, they used the northern islands, <sup>FOR THESE TESTS.</sup> that is

184 why you have the <sup>RADIATION</sup> problems there. ~~That was~~ <sup>WERE IN</sup> the shot islands <sup>MONTHS</sup>

185 ~~They planned these~~ <sup>WERE PLANNED</sup> tests in such a way that the wind would

186 carry the fallout out to sea, so they did not get <sup>MUCH</sup> fallout in

187 ~~these areas.~~ <sup>THE SOUTHERN ISLANDS AT ENEWETAK ATOLL.</sup>

188 That is basically the reason. Bikini was the same way.

189 Mr. MURTHA. Mr. deYoung, what activities is the

190 Department of Interior engaged in with regards to the

191 affected atolls?

192 Mr. DEYOUNG. By "affected atolls," I assume you are

193 referring to Bikini, Enewetak and probably Rongelap and

194 Utirik in which we actually had some fallout occur and that

195 directly affected the people.

196 The people of Bikini and Enewetak were not affected by the

197 fallout. They had been relocated and so were outside of the

198 fallout area.

199 With respect to Rongelap and Utirik, a medical monitoring

200 program has been under way since 1954. This has been

201 conducted under the auspices of the Department of Energy.

202 In recent years, Congress has appropriated funds for

203 compensation for <sup>those injured by</sup> the fallout ~~(victims)~~. I am pleased to

204 report that the compensation is up to date, and there is at

205 the present time adequate reserve in the fund, we think, to

206 cover <sup>any</sup> new cases that might occur within the coming <sup>two-three</sup> years.

207 The Enewetak people, and you will be hearing more directly  
208 from them later on this morning, have been returned to the  
209 southern islands of Enewetak.

210 They actually returned in two groups. Half of them  
211 returned last April. The second half returned in October.  
212 They are occupying new communities in the southern islands  
213 of Enewetak and Medren, and a small island, Japtan.

214 Since the crops in the southern island are not yet  
215 bearing <sup>and</sup> it will be another six or seven years before that  
216 occurs, you have a situation where you have a new community,  
217 but no food crops, no trees, little or no shade, [so that] the  
218 people of Enewetak have always anticipated they would  
219 continue [probably] to use ~~the island~~ Ujelang <sup>Atoll</sup> on which they  
220 have been residing for the last several decades as a  
221 community to which they would go to gather food.

222 Possibly some of them <sup>will on Ujelang</sup> live for various periods of time.  
223 The group that went back to Enewetak last year decided they  
224 would try on a trial basis, for three to four months, to see  
225 if they really could adapt to <sup>live</sup> [this] brand new community that  
226 doesn't have trees and <sup>other crops in production.</sup> ~~things like this.~~

227 The bulk of the group seems to have decided that it is  
228 feasible <sup>to live on Enewetak</sup> probably with some <sup>use of</sup> return to Ujelang. A month  
229 ago, approximately 90 of the Enewetak people returned to  
230 Ujelang. We don't know precisely what the Ujelang Council  
231 has in mind, whether [they will set up] a revolving group that

232 moves back and forth. This is something that they will be  
233 telling us in the future.

234 The Bikini problem is still before us. We had, as the  
235 committee knows, originally proposed to move the people back  
236 to the Island of Bikini. That program was completely washed  
237 out several years ago when it was learned that the food  
238 intake on the Island of Bikini, through the plants, was such  
239 that Bikini Island simply could not be used for habitation  
240 or for agricultural purposes.

241 [And I think] <sup>that</sup> the estimates at that time <sup>and</sup> to my  
242 understanding, are still valid today, <sup>are that</sup> it will be 60 to 90  
243 years before the Island of Bikini can be used.

244 The Island of Eneu, which was somewhat south of the 1954  
245 fallout, I think something like seven miles south of Bikini  
246 Island, did not receive as much fallout.

247 As Dr. Wachholz earlier indicated, <sup>Eneu Island</sup> under certain ~~stringent~~  
248 conditions, possibly could be used for at least some  
249 resettlement. I say "some," because there is a question  
250 as to whether that small island could support all of the  
251 Bikinians, even if the ~~stringent~~ regulations could be met.

252 I must say very candidly, there is some feeling that the  
253 stringent regulations that must be followed are of such a  
254 nature that they cannot be guaranteed in the future.

255 This originally led the Department to not consider Eneu as  
256 a place of resettlement. The people of Bikini, however,

ENERGY, IN CONSULTATION WITH COUNSEL FOR THE BIKINI PEOPLE  
CALCULATED ANTICIPATED RADIATION DOSES UNDER  
VARIOUS LIVING PATTERNS WHICH MIGHT PERMIT THE  
RESSETTLEMENT OF ENEBU ISLAND WITHIN U.S. EXPOSURE LIMITS,  
THESE CALCULATIONS

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257 asked for that decision to be reconsidered, ~~and that~~ led to  
258 the dose assessment work that Dr. Wachholz mentioned a  
259 little earlier.

260 The people of [Enewetak and] Bikini, and their legal  
261 adviser, ~~always~~ <sup>also</sup> have retained independent scientific  
262 consultants who will be examining the results done by the  
263 Department of Energy, and will be advising the people of  
264 Bikini on those results later this year.

265 In the interim period, we [do] have a program of temporary  
266 rehabilitation on Kili Island, ~~and~~ We are looking forward to  
267 [what we call] a long-range rehabilitation of Kili, since it  
268 appears Kili must be used for a considerable period of time.

269 The details on those programs can be addressed by Mr.  
270 High, the acting Deputy Commissioner, because he has some  
271 last-minute details on that particular program.

272 I would be very happy to have him answer.

273 Mr. MURTHA. Mr. High.

274 Mr. HIGH. Yes, Mr. Chairman. It is a little difficult  
275 to hear back there with our backs to Mr. deYoung. As I  
276 understand, the question is on Kili, is that correct?

277 I have, Mr. Chairman, a report. I have also visited Kili  
278 one time in furtherance of the payment which was made by the  
279 United States Congress. I turned out to be the messenger  
280 with the money, which was a very popular task, I can tell  
281 you.

282           So I have done that on behalf of the Congress. The  
283 statement I have from the former High Commissioner, Mr.  
284 Winkle, could, perhaps, be basically read or paraphrased.  
285 But it is this, that in conjunction with the people of  
286 Bikini, there have been a number of actions taken in the  
287 past few years and recently to try and ease the conditions  
288 that they face there.

289           As you know, four months of the year, there are very harsh  
290 waves that they encounter and the island becomes practically  
291 inaccessible for the field trip ships.

292           I encountered that, myself. We had to lay off the island  
293 for some time before we could get ashore. I personally  
294 watched the boat tip. People scattered every which  
295 direction, outboard engines going up in the air. A very  
296 dangerous situation.

297           We were delayed in our departure about two days even  
298 getting off the island. This was in January. You can't  
299 quite appreciate it until you experience it, in water up to  
300 here.

301           You had videotapes yesterday. I have some I took when I  
302 was out there just for farm purposes. I don't have them  
303 here, but they are very graphic when you see what they do.

304           So High Commissioner Winkle, and certainly I, myself,  
305 realize that there are conditions that need to be mitigated  
306 and lessened if the people are to stay there for a

307 continuing length of time.

308 So that is the basis from which I am sure Mr. Winkle was  
309 working. As you know, there have been visits to other  
310 sites, alternate resettlement sites. They have been  
311 basically unsuccessful.

312 The people and leaders have viewed locations in Hawaii,  
313 Wake Island, there was an over-flight of Palmyra. As I  
314 understand it, the air field was such that the military  
315 plane that had the representatives on it could not land, so  
316 they did not actually land on the island.

317 They over-flew it but because of the distance from the  
318 area to which they are used to living, some other things, it  
319 simply did not appear to be a feasible site for them.

320 They felt it would be too isolated. So from the places we  
321 have looked at, it appears until they can return to their  
322 original homeland, <sup>Kili</sup> Kili appears to be it at the moment, at  
323 least, realistically speaking. It isn't a very popular  
324 decision.

325 Mr. MURTHA. What is the distance you are talking about?

326 Mr. HIGH. You mean with Palmyra?

327 Mr. MURTHA. Yes.

328 Mr. HIGH. I think it is 1000 miles or something from  
329 Hawaii. It is quite a ways away. As far as the facilities  
330 on Kili, my own personal impression when I went ashore was  
331 that the housing is very good, but it is wood construction,



961 select an independent, non-U.S. Government scientist to  
962 validate, review and assess DOE's radiological studies of  
963 Bikini.

964 The Bikinians have selected Epidemiology Resources, Inc.  
965 (ERI) of Boston, Massachusetts, led by Dr. Henry I. Kohn,  
966 professor emeritus at Harvard Medical School, to conduct  
967 this review.

968 Phase I of the review, to be funded by DOE, will involve  
969 the preparation of a technical scientific evaluation of  
970 DOE's conclusions.

971 Phase II, to be funded by DOI, will involve the  
972 preparation of a bilingual lay booklet for the Bikinians and  
973 a visit to Kili by ERI to explain its conclusions and  
974 recommendations and to answer questions the Bikinians may  
975 have.

976 This work is ready to be conducted immediately, and a trip  
977 to Kili has been tentatively scheduled for the late fall.  
978 It is hope that ERI's project will constitute the final word  
979 for now on the radiological safety of Bikini and Eneu.

980 As a brief update on where the independent assessment  
981 stands, DOI has acknowledged a willingness to support this  
982 Phase II aspect, the preparation of a booklet for the  
983 Bikinians and a visit by the scientists to Kili.

984 As to Phase I, the technical report, to be funded by DOE,  
985 we have not yet reached an agreement with DOE on the exact

986 level of funding and the exact scope of the work to be  
987 performed.

988 We are hopeful to get this resolved just as soon as  
989 possible, meaning in the next 10 days, because the project  
990 really should go ahead.

991 DOE has its budgetary constraints. We are trying to pare  
992 this down to the simplest review possible that still meets  
993 the criteria set forth in the settlement agreement, which is  
994 to provide an independent assessment for the Bikinians.

995 The last area of needed appropriations is ongoing costs  
996 and activities, including travel and related expenses,  
997 improved educational facilities on Kili, contingency  
998 funding, the health care program referred to earlier,  
999 periodic radiological surveys of Bikini Atoll and updated  
1000 radiation dose assessments.

1001 Mr. MURTHA. I would like you to provide some detailed  
1002 information for the record, breaking down the various  
1003 suggestions you have and estimated costs of those  
1004 suggestions.

1005 Mr. WEISGALL. I will do so, and provide that to the  
1006 committee shortly.

1007 [The information follows:]

1008

1009 \*\*\*\*\*COMMITTEE INSERT \*\*\*\*\*

332 wood with tin and so forth.

333 It wouldn't last through one typhoon on Saipan, but a lot  
334 of things don't. They don't normally have typhoons in this  
335 area, but we have had high winds of late.

336 We had tidal wave action a few years ago, waves came up  
337 and washed the temporary platforms off the foundations. I  
338 saw that, or effects of it.

339 So they do have wind and do need to be prepared against  
340 the fact that you might get a real typhoon out there and the  
341 people would have nothing but wood houses to protect them.

342 In that regard, there is a community center, typhoon  
343 shelter combinations, a building which was being constructed  
344 while I was there.

345 I would say it is very well-constructed. It has huge pre-  
346 fabbed, pressed-wood beams. It looks like one of these  
347 steel buildings with the steel work inside it, only it's  
348 done out of wood.

349 It looked to me like it would stand about anything that  
350 would come along. That is the only building constructed to  
351 that degree of strength on the island that I saw.

352 Mr. MURTHA. How many people can get inside the building?

353 Mr. HIGH. I am sure the representatives from Kili can  
354 tell you better than I, but it looked to me like everyone  
355 could get in.

356 It's a huge structure. It looked like you could play

357 basketball. It's a pretty big building. There are  
358 approximately 68 temporary houses, cook houses, showers,  
359 three classrooms, an access road.

360 I am not quite sure what that refers to. There is a road  
361 that runs down the middle of the housing area. When I say  
362 "road," when I was there, it consisted of basically sand.  
363 I mean, it was difficult to walk in. So I am not sure what  
364 the access road is.

365 Someone from Kili, I think, would be better equipped to  
366 tel you about that.

367 Mr. MURTHA. Do you have vehicles there?

368 Mr. HIGH. When I was there, the only vehicle I saw was a  
369 tractor with a front-end loader that was used by the  
370 contractor, Holmes & Narver, who were doing work on the  
371 island. That would run up and down occasionally.

372 While I was there, I walked and everyone I saw was  
373 walking. I don't know if that situation has changed, but  
374 there is no paving I saw.

375 The storm shelter I see mentioned here is 4000 square  
376 feet, this building I was telling you about. The runway  
377 that has been requested, the airstrip, was the subject of a  
378 contract signed by High Commissioner Winkle the day before  
379 he left office, about three days before I left for  
380 Washington.

381 It is with, I think, AIC, American International

382 Contractors. I believe that is who it is with. A gentleman  
383 names Tolkoes. They have done work there and quite  
384 successfully.

385 They are already purchasing equipment, mobilizing gear,  
386 and ready to go in and do the work. I have talked with  
387 them. They are going to, of course, use people from Kili to  
388 assist with the construction.

389 International Bridge Corporation. It used to be with AIC,  
390 but it's split off. That has been signed. The project is  
391 bonded, so there should be no difficulty in seeing it  
392 through to completion. It is planned to begin by the end of  
393 May.

394 So as far as mobilizing, they are doing that now. So  
395 that's correct. This shows a completion date of September,  
396 this year. I am not sure that is still correct. I don't  
397 recall.

398 Mr. MURTHA. Do they have the same weather problems there  
399 we were talking about yesterday?

400 Mr. HIGH. Well, you have rain. But throughout the Trust  
401 Territory, you have a dry season, a wet season, a trade wind  
402 season and so forth. The main problem on Kili, as I  
403 understand, is the wind, winter trade winds that whip the  
404 seas up.

405 You can't get onshore with equipment. Once that season is  
406 over, I wouldn't think you would have much problem. Getting

407 equipment on and off can be a problem.

408           Sitting at the desk, I don't know how they do it. In  
409 addition to the airstrip, also a part of this \$.5 million  
410 contract, and it is a 3000 foot airstrip we are talking  
411 about, there will also be a replacement or repair of certain  
412 facilities that were damaged in the wave action in December.

413           There is also supposed to be some kind of an air support  
414 terminal. I think that is a pretty fancy term for what will  
415 probably simply be a place to be out of the weather while  
416 you are waiting for the plane.

417           Again, I am not really conversant with the details of  
418 that. I know the High Commissioner felt that the, that one  
419 important aspect of all this is that was developed through  
420 the joint efforts of the people of Kili, their Council and  
421 High Commissioner's Office and Interior, the territories.

422           He spent more time on the Marshalls and Enewetak and so  
423 forth than any other area.

424           Mr. MURTHA. How do you get around these different  
425 islands if you don't have an airport?

426           Mr. HIGH. You go by field ship. We have several  
427 assigned in the Marshall Islands.

428           Mr. MURTHA. How big a ship is it?

429           Mr. HIGH. I am not much on tonnage. It looks like a  
430 small freighter. It has passenger cabins, maybe three or  
431 four. Everything else is deck space.

432 Those ships at this point were in good shape. The problem  
433 is the fuel and so forth to keep them moving.

434 Mr. MURTHA. When you are finished with this  
435 construction, will you have any rehabilitation money left,  
436 or does that use it all up?

437 Mr. HIGH. We had \$750,000 left in that account, and this  
438 is 500. So we will have a couple hundred thousand left, as  
439 I understand it.

440 But that is the idea. Other than that, the next step,  
441 then, would be some kind of a master plan, similar to what  
442 was done on Enewetak.

443 That is the next step. The Department is working on that  
444 now. Its scope has been basically prepared, but they still  
445 have to go into the master plan, A&E, what they need, how  
446 they are going to do it.

447 That is if this is going to be a place of some permanency.

448 Mr. MURTHA. When will the master plan be completed?

449 Mr. HIGH. I would have to defer to Mr. deYoung on that.

450 Mr. DEYOUNG. The master plan, as indicated, is in the  
451 scoping stage. One of the problems has been, originally,  
452 the people of Bikini requested that part of the master plan  
453 be the possible use also of Eneu Island.

454 Since we have not as yet been able to determine whether  
455 Eneu Island will be part of that master plan, we have been  
456 delaying the actual implementation of preparing the master

457 plan until that particular segment is resolved.

458 This does not mean that the part of the master plan  
459 involving the permanent rehab<sup>ilitation</sup> of Kili Island, and a small  
460 island called Ejit, which is off of the Majuro in the main  
461 district center, will be held in abeyance.

462 But an overall master plan will not be complete until we  
463 know whether Eneu is going to be part of it or not part of  
464 it. *For possible use of Eneu island*

465 [Because that actually] will determine the number of houses,  
466 for example, you would put on Kili, and other facilities.  
467 The chances are that Eneu <sup>will</sup> ~~would~~ not be part of ~~that~~ <sup>the Master Plan.</sup>

468 We hope to resolve this aspect shortly. As the acting  
469 <sup>Deputy</sup> High Commissioner indicated, the current fund, the  
470 resettlement account, is nearing exhaustion. <sup>He is</sup> getting pretty  
471 close to the end of it.

472 The Budget Officer of the Trust Territories does have some  
473 information, I believe, that could be useful in indicating  
474 what [possible] ongoing costs are needed, ~~we~~ would be needed in  
475 carrying out a master plan, and also the interim work that  
476 has to be done until we get a final Bikini resettlement  
477 program in operation.

478 Mr. MURTHA. Mr. deYoung, Public Law 96-205, passed March  
479 12, 1980, requires the Secretary of Interior to submit a  
480 plan to Congress no later than January 1st of this year for  
481 medical care and treatment for people affected by nuclear



482 weapons testing.

483 Has that plan been submitted to Congress?

484 Mr. DEYOUNG. Yes, Mr. Chairman. A preliminary report  
485 was submitted to Congress on January 7, 1981. ~~And I~~ have  
486 an additional copy here [just] for the convenience of the  
487 committee.

488 The report submitted to Congress was not a final plan, the  
489 reason being that Public Law 96-205, mandating the plan, had  
490 certain language over which there have been varied  
491 interpretations, and differences of opinion, [and] I may say  
492 very strong differences of opinion, between the individual  
493 peoples involved, their legal representatives, various  
494 Federal agencies, and the government of the Marshall  
495 Islands.

496 So what we presented to Congress on January 7 was <sup>our</sup> [some]  
497 preliminary conclusions. The Department neither endorses  
498 nor rejects these at this time. They are not in [any] final  
499 form.

500 We do feel that the original legislation requires  
501 clarification. I can tell you very briefly what the  
502 preliminary proposals indicated. ~~Because~~ There are roughly  
503 anywhere from 2500 ~~probably~~ to 3000 people involved from the  
504 four named atolls. Not all living on the atolls today, ~~but~~  
505 ~~[coming from the atolls]~~ many of those are scattered in other  
506 parts of the [atolls] *Marshall*

507 You may have more Rongelapese living away from Rongelap  
508 Island than actually on it. The only exception <sup>are</sup> ~~being~~ the  
509 people of Enewetak that have been an integrated group and  
510 have, in the main, lived together and stayed together.

511 This is not the case with the people of <sup>Utirik.</sup> ~~Enewetak~~  
512 Rongelap, or the people of Bikini, ~~in which~~ there are 3- to  
513 400 <sup>living</sup> Bikinians <sup>working on</sup> away from Bikini Island at the present time.

514 The contractor who ~~drew up~~ the health aspect of the  
515 proposal drew one up which said it would be almost  
516 impossible to <sup>s</sup>divert special care for <sup>"affected"</sup> these people from the  
517 overall care the Marshall Island Government Health Service  
518 provides, because these people are all over the place.  
519 <sup>Accordingly, the contractor</sup> ~~and they~~ drew up a proposal in which health care would be  
520 provided in essence for the Marshall Islands, but which <sup>was</sup>  
521 would cover the provisions of Public Law 96-205. The cost  
522 estimate of that for the first year was \$11 million.

523 Mr. MURTHA. How are they going to do it?

524 Mr. DEYOUNG. It would be done by, essentially, upgrading  
525 the current Marshall Island Government health system. Out  
526 of that \$11 million, \$3 million would be provided by the  
527 Marshall Island Government from <sup>its</sup> ~~their~~ regular operating  
528 budget.

529 There would have to be a supplement of \$8 million. If you  
530 did a similar-type <sup>health</sup> upgrading program <sup>only</sup> for the people of the  
531 four atolls named in the bill, regardless of where they

532 were, ~~[in other words, not only on the four atolls, but all~~  
533 ~~over the Marshalls, which]~~ <sup>this</sup> would necessitate American  
534 doctors, a medical-type ship to go around <sup>the Marshalls.</sup> The cost was  
535 estimated at \$10.6 million, of which 3 million also would  
536 come from the Marshall Island Government.

537 In other words, those two <sup>proposals</sup> were fairly equal. We were also  
538 asked by some of the participants, what would it cost if you  
539 provided special care only for the people living physically  
540 on the four <sup>islands</sup> atolls?

541 To do that <sup>we</sup> would need, again, ~~[upgrading]~~ American  
542 physicians, a ship to take the medical teams around,  
543 upgraded dispensaries. That cost was estimated at roughly  
544 \$2.8 million a year, which would be completely subsidized by  
545 the U.S. Government.

546 I would like to note, however, that <sup>this kind of proposal</sup> ~~that~~ would provide  
547 care only for a person <sup>who</sup> ~~that~~ was physically living on one of  
548 those four islands. If you were a fallout victim living in  
549 Majuro, under this <sup>arrangement,</sup> ~~thing~~ you wouldn't get any special  
550 treatment.

551 If you were a Bikinian living elsewhere, you wouldn't get  
552 any special treatment, you would simply have to go to the  
553 Majuro Hospital and get ~~the~~ treatment there.

554 Mr. MURTHA. How does the Interior Department intend to  
555 make a decision, and when; and then when will you get the  
556 appropriation request up to us?

557 Mr. DEYOUNG. [All right.] Since, as I indicated, there is  
558 this widely divergent range of opinions, particularly  
559 amongst the affected people themselves and their legal  
560 representatives, and the Marshall Island Government, as well  
561 as Federal entities, we are proposing to ask for  
562 clarification of the language in this section of Public Law  
563 96-205.

564 [And] We will be submitting some ideas for clarification  
565 within the next several months. Once that clarification is  
566 obtained from the Congress, and we know precisely what the  
567 Congress had in mind as to what should be covered, we then  
568 are prepared to redraft a suitable health care program  
569 within the parameters that are established more clearly.

570 And at that point, when that plan is agreed upon by the  
571 Department of Energy, would look at it from a funding point  
572 of view.

573 I would defer to the Department of Energy at this point,  
574 because the law at this time, designates <sup>it</sup> ~~them~~ as the funding  
575 entity.

576 Dr. WACHHOLZ. Dr. Burr.

577 Dr. BURR. If the law remains with the stipulation that  
578 the program is to be planned and managed by Interior, but  
579 funded by Department of Energy, which is a little unusual as  
580 to management--

581 Mr. MURTHA. Why is it set up that way?

582 Dr. BURR. That is something I can't answer, Mr.  
 583 Chairman. I really don't know the logic in setting the bill  
 584 up that way. But if it does remain that way, then, of  
 585 course, it would be the responsibility of the Department of  
 586 Energy to come forward with--

587 Mr. MURTHA. What has the Department of Energy got to do  
 588 with this? I don't understand this. I understand what it  
 589 says, you are supposed to fund it. But why are you funding  
 590 it?

591 Dr. BURR. The only answer I can give you, Mr. Chairman,  
 592 is, that is the way the law reads.

593 The law says, for some reason or other, that the  
 594 Department of Energy would seek the money.

595 Dr. WACHHOLZ. Mr. Chairman, if I could just add a  
 596 ~~statement~~ <sup>COMMENT</sup> to that. The only amplification that I could  
 597 offer is <sup>THAT</sup> in some of the legislative history of the law  
 598 there is reference to the fact that ~~this~~ <sup>THE</sup> law is a follow-on  
 599 ~~requirement~~ to the U.S. nuclear weapons activity.

600 Mr. MURTHA. Which was run by the Department of Energy.  
 601 Dr. WACHHOLZ. <sup>THESE ACTIVITIES WERE CONDUCTED BY THE ATOMIC ENERGY</sup> Jointly by the Department of Energy and <sup>COMMISSION AT THAT TIME</sup>  
 602 <sup>THE</sup> Department of Defense. <sup>A</sup> ~~Accordingly,~~ <sup>THIS RESPONSIBILITY</sup> it has been allocated  
 603 to the Department of Energy, apparently. But that is the  
 604 only suggestion I can offer.

605 Mr. MURTHA. It looks to me, Mr. deYoung, like you are  
 606 talking about three months, you will have your proposal on

607 health care.

608 Then you will have a clarification which will take several  
609 months. Then, of course, the funding apparatus will take  
610 some time.

611 What happens to the people in the meantime?

612 Mr. DEYOUNG. In the interim period, we will proceed as  
613 we have in the past. Medical monitoring of the ~~(fallout~~  
614 ~~people)~~ Rongelap and Utirik, <sup>people</sup> will continue.

615 If they need medical care directly related to the fallout,  
616 that will be provided by Department of Energy. If they need  
617 routine medical care, and that can be taken care of by the  
618 Marshall Island Health Service, they will be referred to the  
619 Marshall Island health program.

620 Mr. MURTHA. Which, according to the testimony yesterday,  
621 is not in the best condition.

622 Mr. DEYOUNG. I think, Mr. Chairman--

623 Mr. MURTHA. They showed slides of the hospital.

624 Mr. DEYOUNG. I think, Mr. Chairman, the slides yesterday  
625 were from Palau. The Marshall Island health system,  
626 obviously, needs upgrading. The Marshall Island Delegation  
627 is here. I would prefer that they speak to this issue  
628 later.

629 Mr. MURTHA. How is Palau compared to the rest of the  
630 islands there? How is their facility compared to the  
631 others?

632 Mr. DEYOUNG. Palau's facility, at the present time,  
633 ~~other than the Marshalls, are the old~~ <sup>is a</sup> hospitals built 15 to  
634 20 years ago.

635 Mr. MURTHA. What I am trying to do, though, is get a  
636 picture. Is this the same; is this worse; or is this better  
637 than the other hospitals?

638 Mr. DEYOUNG. In Palau?

639 Mr. MURTHA. Yes. What I saw, how do you compare it with  
640 the other hospitals?

641 Mr. HIGH. Mr. Chairman, I have been to all of them at  
642 one time or another. In Ponape, we have a new hospital. It  
643 is a very good facility. The problem is maintenance. I was  
644 told by an individual in the last 30 days that it is  
645 starting to get dirty and going downhill.

646 This isn't really funding, just keeping it clean.  
647 Nevertheless, the basic structure is good. ~~Japan~~ <sup>Japan</sup> has a new  
648 hospital. In Palau, I have seen some construction there. I  
649 think it is an out-patient facility. The basic structure is  
650 poor and needs to be upgraded.

651 When you talk about a tin roof on a structure, that is not  
652 necessarily bad. There are houses recently sold for  
653 \$100,000 with tin roofs. But the hospital in Palau does  
654 definitely have to be improved and upgraded.

655 The Marshalls Hospital is not a good situation. They have  
656 a plan coming before the High Commissioner's Office now,

657 OICC, to go with a \$4 million panel-type hospital.

658 Mr. MURTHA. Are they worse than Palau or better?

659 Mr. HIGH. In the Marshalls? I would say they are  
660 comparable. There are two of those areas that need  
661 upgrading.

662 The other in the trust territory that is bad is the Truk  
663 Hospital.

664 Mr. MURTHA. If you gentlemen would stay, but just leave  
665 the table in case we run into any problems that we may have  
666 to ask you about, then we will ask the Bikini Delegation to  
667 come forward.

668 Mr. HIGH. Mr. Chairman, one last point on the Marshalls  
669 Hospital. Mr. deYoung points out there is funding now  
670 available, \$8 million available for the hospital in the  
671 Marshalls.

672 Their current plans I saw a month ago show 4.4 is what  
673 they intend to spend on it. The question is whether it is  
674 going to be temporary, or permanent.

675 Thank you.



576 Wednesday, May 13, 1981  
677 THE BIKINI DELEGATION  
678 WITNESSES  
679 JONATHAN M. WEISGALL, COUNSEL TO THE PEOPLE OF BIKINI;  
680 TOMAKI JUDA, MAGISTRATE OF THE KILI/BIKINI COUNCIL;  
681 NATHAN NOTE, COUNCIL SCRIBE;  
682 JOHNNY JOHNSON, COUNCIL TREASURER;  
683 SENATOR HENCHI BALOS, ELECTED REPRESENTATIVE OF THE PEOPLE  
684 OF BIKINI TO THE MARSHALL ISLANDS LEGISLATURE; AND  
685 JAMES HAMILTON, ESQ.

686 Mr. WEISGALL. Thank you.

687 Mr. MURTHA. Mr. Weisgall, as I understand it, you are  
688 the attorney representing them.

689 If you will introduce the other gentlemen at the table. I  
690 understand you also have a statement, is that accurate?

691 Mr. WEISGALL. That is correct, Mr. Chairman. The Bikini  
692 Delegation, just going from one end of the table to the  
693 other, at the far end is Nathan Note, who is the scribe of  
694 the Bikini Council.

695 Next to him is Mr. Johnson, the treasurer of the Bikini  
696 Council. In the middle is Tomaki Juda, who is the  
697 magistrate of the Bikinians.

698 To my immediate right is Senator Henchi Balos, who is the  
699 elected representative of the people of Bikini to the  
700 Marshall Islands Legislature.

701 And to my left is my colleague, James Hamilton. We are co  
702 counsel for the people of Bikini.

703 Senator Balos would like to make a brief introductory  
704 remark. Then I would like to proceed with some prepared  
705 remarks.

706 Mr. MURTHA. Proceed, Senator.

707 Senator BALOS. Thank you, Mr. Chairman. It is a great  
708 honor for the leaders of the people of Bikini to appear  
709 before your committee today on behalf of all the Bikini  
710 people.

711 Mr. Chairman, I am pleased to introduce to you the new  
712 committee, our legal advisers, who have been introduced by  
713 Mr. Weisgall. Mr. James Hamilton, Mr. John Weisgall.

714 Mr. Weisgall has been our legal counsel for the past six  
715 years. He has visited us on the island a number of times.  
716 With your permission, Mr. Chairman, I would like, on behalf  
717 of my colleagues, to ask Mr. Weisgall to make a statement on  
718 our behalf.

719 Thank you.

720 Mr. MURTHA. Thank you, Senator.

721 Mr. Weisgall.

722 Mr. WEISGALL. During the past year, Mr. Chairman, I have  
723 met regularly with the Bikini Council and members of the  
724 Bikini community on Kili, and elsewhere, to review  
725 resettlement questions.

726 I guess I have been to Kili three times in the last 12  
727 months. The community is somewhat dispersed, as you heard  
728 earlier this morning.

729 Of the approximately 1000 Bikinians, the majority, about  
730 550 or so, live on Kili, another, oh, 250 or so, live on  
731 Majuro Atoll, a number of them living on Ejit Island in  
732 Majuro.

733 The remainder are scattered throughout the Marshall  
734 Islands.

735 One has a strong sense of deja vu in appearing before this

736 subcommittee, which has actively followed the Bikini  
737 situation since 1978.

738 Many of the same questions raised in 1978, and again in  
739 1979 and 1980, remain unanswered today. In 1978, when the  
740 people living on Bikini Island were again moved off  
741 following disclosure that their body burdens of radioactive  
742 cesium-137 greatly exceeded Federal standards, the United  
743 States and Trust Territory Governments presented a document  
744 to the Bikinians stating that "Some of the Bikini people  
745 will choose to remain on Kili indefinitely, and the  
746 governments will accordingly undertake a program for the  
747 permanent rehabilitation of Kili."

748 In 1980, I outlined the details of a comprehensive  
749 rehabilitation program for Kili in testimony before this  
750 subcommittee. Yet little action has been taken in the last  
751 three years to improve the plight of the Bikinians.

752 Immediate action to upgrade Kili and Ejit is urgently  
753 needed, since the United States has declared that Bikini  
754 Atoll is off-limits for resettlement for 20 to 60 years.

755 In May 1979, the Department of Energy wrote to the  
756 Interior Department concerning radiological conditions on  
757 Eneu. DOE stated that the degree of uncertainty in  
758 estimating long-term radiation doses on Eneu was similar to  
759 the problems found on Enewetak Atoll.

760 Based on these uncertainties, an Environmental Impact

761 Statement prepared for the resettlement of Enewetak had  
762 recommended a tightening of applicable U.S. radiation  
763 guidelines from 500 millirem per year to 250 millirem.

764 Applying the Enewetak criteria to Eneu, DOE concluded that  
765 ''Even with imported food, the radiation doses to the people  
766 on Eneu could not be expected to be in compliance with the  
767 Enewetak criteria for about 20-25 years.''

768 Even with the stringent conditions being met, the dose  
769 predictions for Eneu would exceed the 250 millirem standard  
770 which had been adopted by the U.S. Government for Eneu.

771 Some of the numbers are below 500, but every dose estimate  
772 we have seen and is contained in the DOE booklet prepared  
773 for the Bikinians, does have a predicted dose over 250  
774 millirem, even with these very stringent requirements being  
775 imposed.

776 Based on this information which was first presented in  
777 preliminary form in May of '79, two years ago, the  
778 Department of Interior promptly informed the Bikinians,  
779 Congress and the High Commissioner of the Trust Territory  
780 that Eneu could no longer be considered as a resettlement  
781 site for the Bikinians.

782 By letter dated June 1, 1979, DOI wrote to the Bikini  
783 leaders, stating:

784 ''All of us here deeply regret that Eneu Island cannot be  
785 used for residence for at least another 20-25 years, since

786 we understand the deep feelings of the people of Bikini and  
787 their hopes, that even though Bikini Island is not usable  
788 now, Eneu Island possibly might have been. This is not now  
789 possible.''

790 Similarly, in a report submitted to Congress one month  
791 later, pursuant to Public Law 95-348, DOI stated that there  
792 was 'no question that the Island of Eneu must be placed off  
793 limits as a place of residence for the Bikini people for at  
794 least another 20-25 years.''

795 Despite the United States' formal announcement in 1979  
796 that Eneu Island could not be resettled for at least another  
797 20-25 years, certain U.S. officials have inaccurately held  
798 out the hope that parts of Bikini Atoll can be resettled  
799 soon.

800 For example, during a two-day dose assessment meeting held  
801 on Kili on October 8-9, 1980, called at the request of the  
802 people of Bikini to receive information from the U.S.  
803 Government regarding the radiological safety of Bikini  
804 Atoll, the United States failed orally or in writing to  
805 inform the Bikinians that their homeland could not be  
806 resettled for many years.

807 To the contrary, a member of the DOE team at the dose  
808 assessment meeting stated unequivocally to the Bininians  
809 that he would not hesitate to live on Eneu with his family.

910 A bilingual booklet, given to you earlier this morning,

811 prepared by DOE, discussed only the application of the  
812 discarded 500 millirem standard.

813 No mention was made of the 250 millirem standard adopted by  
814 the United States for evaluating living conditions on Bikini  
815 or Eneu, and no one pointed out that all of the booklet's  
816 predicted levels of exposure for Bikini and Eneu  
817 unacceptably exceeded the 250 millirem standard adopted by  
818 the U.S. Government.

819 At the meeting, one of the Bikini leaders, who was rather  
820 surprised at DOE's latest switch on Eneu, asked what had  
821 happened in the 15 months since the June 1, 1979 U.S.  
822 Government's letter to the Bikinians to change the statement  
823 in that letter that Eneu could not be resettled.

824 The DOE spokesman replied that he was not aware of any  
825 such letter or position by the United States.

826 This assessment was not disputed by the other six DOE  
827 officials and scientists, led by an acting Deputy Assistant  
828 Secretary, and the three DOI officials, led by a Deputy  
829 Assistant Secretary, who attended the dose assessment  
830 meeting.

831 Mr. MURTHA. What was the date?

832 Mr. WEISGALL. The date of the dose assessment letter was  
833 October 9, 1980. These kinds of actions and statements by  
834 the United States are extremely counterproductive, to say  
835 the least. They are wholly at odds with official U.S.

836 policy on Bikini and Eneu.

837 They sadly raised false hopes among the Bikinians.

838 Moreover--and perhaps most unfortunately--such views may have  
839 provided a reason for the failure of the United States to  
840 make Kili a permanent home for the Bikinians.

841 One depends on the other. Until a final decision is  
842 reached on Bikini and Eneu, it is difficult to go ahead with  
843 a decision.

844 I have said this for two years. The true facts must be  
845 recognized and dealt with. The official U.S. position  
846 regarding resettlement of Bikini and Eneu has not changed  
847 since June 1, 1979. Bikini is off limits for at least 30 to  
848 60 years, and Eneu is off limits for at least 20-25 years.

849 The United States has stated for several years that the  
850 Bikinians cannot return to their homeland. Nevertheless, it  
851 has failed--until the last two weeks--to take any action to  
852 make the Bikinians' "temporary" home on Kili a more  
853 permanent one.

854 Nearly three years ago, in testimony before this  
855 subcommittee, Magistrate Juda referred to his people as  
856 "victims of bureaucratic incompetence."

857 That assessment still applies today. It led the Bikinians  
858 to bring a lawsuit six years ago to force the United States  
859 to conduct a thorough radiological survey of Bikini before  
860 continuing with the resettlement of the atoll.



861 Mr. MURTHA. Let me understand what you are saying. They  
862 did an initial assessment. Then after they were forced to  
863 do an additional detailed assessment, they found the higher  
864 levels of radiation, is that accurate?

865 Mr. WEISGALL. That is correct.

866 Mr. MURTHA. If it hadn't been for the lawsuit, they  
867 would not have found these higher levels of radiation, is  
868 that accurate?

869 Mr. WEISGALL. Well, there were signs before the lawsuit  
870 was brought that there were problems. That was why the  
871 lawsuit was brought.

872 Mr. MURTHA. The question is, the government acted in  
873 response to the lawsuit, not on their own initiative.

874 Is that what you are saying?

875 Mr. WEISGALL. That is generally correct. There were  
876 trouble signs early on, but the resettlement was continued.  
877 That was held in limbo for a three- or four-month period.

878 Then the lawsuit was brought, which said in essence, don't  
879 continue with the resettlement of Bikini until you conduct a  
880 thorough comprehensive radiological survey to see if it was  
881 safe.

882 Mr. MURTHA. Was there a decision in the lawsuit?

883 Mr. WEISGALL. Pursuant to the settlement in the lawsuit,  
884 the thorough radiological survey was conducted. That showed  
885 it was not safe and resettlement was stopped.

886 This assessment also compelled the people to bring a  
887 lawsuit two months ago seeking just compensation from the  
888 United States for the taking and destruction of Bikini Atoll  
889 and damages for breaches of fiduciary obligations owed to  
890 the Bikinians by the United States. This is a lawsuit born  
891 of frustrations.

892 It is a last resort to force the United States to give the  
893 Bikinians what is justly due them. The lawsuit will be  
894 prosecuted vigorously, but it is not an excuse for Congress  
895 to avoid its responsibility to appropriate funds necessary  
896 for the current well-being of the people.

897 Mr. MURTHA. How much money are you talking about here?

898 Mr. WEISGALL. The lawsuit seeks damages and just  
899 compensation from the United States of a total of \$450  
900 million. That is limited to the destruction and taking of  
901 Bikini Atoll.

902 It is not related to any current obligations of the United  
903 States to continue caring for the Bikinians in a Kili  
904 rehabilitation project.

905 Two weeks ago, as you heard earlier, the High Commissioner  
906 awarded a contract to a private company in Guam to construct  
907 a 3000-foot coral airstrip on Kili. This airstrip, when  
908 completed, will help make Kili more accessible, end the  
909 island's isolation and aid the people in case of food  
910 shortages or medical emergencies.

911           However, the funding of this airstrip and the construction  
912 of classrooms that were destroyed in a storm last December  
913 will virtually deplete the Bikini Resettlement  
914 Rehabilitation Account established in 1978 pursuant to  
915 Public Law 95-348 for the resettlement and relocation of the  
916 Bikini people.

917           This fund must be replenished as soon as possible in order  
918 to carry out other Bikini projects that are long overdue.

919           Among these projects, and you have heard of some of them  
920 already from the Interior witnesses, but among them are the  
921 preparation of a master plan for the rehabilitation of Kili  
922 and Ejit. Some preliminary scoping work has been completed,  
923 but a final master plan should be prepared.

924           Implementation of the master plan, with the construction  
925 of housing and community facilities that will be more than  
926 temporary in nature.

927           Continuation of food support for Kili. The present food  
928 program provides USDA food as a diet supplement. This USDA  
929 food is not meant to--and, in fact, does not constitute--  
930 provide a balanced and nutritious diet for the Bikinians.

931           Section 601(b) of Public Law 96-597, signed into law just  
932 last December, authorizes the Secretary of the Interior to  
933 provide for the ''purchase of food'' and ''for the  
934 transportation of such food'' for the people of Bikini.

935           The High Commissioner's office should devise and implement

936 a balanced and nutritious food program for the Bikinians  
937 living on Kili and Ejit.

938 The food program currently supporting the people of  
939 Enewetak Atoll could serve as a model for the Kili-Ejit  
940 program, and it may be cost-efficient to coordinate the  
941 planning of this program with the one recently implemented  
942 at Enewetak.

943 Improvements in the Kili airstrip. The limited funds  
944 available for Bikini permit only the construction of a  
945 simple 3000-foot coral strip and for the clearing of trees  
946 for 1000 feet on either end of the airstrip.

947 The Bikinians feel that the strip should be lengthened to  
948 5000 feet in order to accommodate certain types of aircraft  
949 that may be needed in an emergency.

950 In addition, improving the surface of this rudimentary  
951 airstrip may be necessary in order to ensure continued safe  
952 access to Kili. Lastly, some compensation may be in order  
953 for those who are particularly injured by the placement of  
954 the airstrip.

955 Funding an independent scientific assessment of DOE's  
956 radiological survey of Bikini. You have heard a little bit  
957 about this earlier this morning. Pursuant to an agreement  
958 settling the litigation initiated by the Bikinians in 1975,  
959 the United States agreed to conduct a thorough radiological  
960 survey of the atoll and agreed that the people of Bikini may

1010 Mr. WEISGALL. Mr. Chairman, the United States has a  
1011 special obligation to the people of Bikini. It committed an  
1012 injustice to the Bikinians when it moved them off their  
1013 atoll in 1946 without just compensation and without caring  
1014 for them.

1015 No such action would be sanctioned today. But for the  
1016 United States to fail to come to grips with this problem  
1017 after 35 years is to continue that injustice. This must  
1018 stop.

1019 Thank you very much.

1020 Mr. MURTHA. Thank you, very much, Mr. Weisgall. Thank  
1021 you, Senator, and gentlemen.

1022 We will have the Delegation from Enewetak.

1023 Is Mr. deYoung still here? I would like a reply from the  
1024 Department of Interior and Department of Energy about the  
1025 confusion which now exists, and what was said by the  
1026 delegation in their meeting.

1027 It is clear to me the Government's position. It is not  
1028 clear to me what the delegation said when they were there,  
1029 and I would like that confusion to be cleared up for the  
1030 record.

1031 Mr. DEYOUNG. Yes, we will provide that for the record.

1032 [The information follows:]

1033

1034 \*\*\*\*\* COMMITTEE INSERT \*\*\*\*\*

1035 Wednesday, May 13, 1981  
1036 DELEGATION FOR ENEWETAK  
1037 WITNESSES  
1038 HERTES JOHN, MAGISTRATE;  
1039 BINTON ABRAHAM, IROIJ RI ENJEBI;  
1040 NAPATALY PETER, REPRESENTING IROIJ JOHANNES PETER;  
1041 SAM LEVY, SECRETARY;  
1042 THEODORE R. MITCHELL, COUNSEL TO ENEWETAK PEOPLE;  
1043 JOHN SILK, COUNSEL TO ENEWETAK PEOPLE AND INTERPRETOR;  
1044 DR. A. BERTRAND BRILL, CONSULTANT TO ENEWETAK PEOPLE;  
1045 DR. MICHAEL A. BENDER, CONSULTANT TO ENEWETAK PEOPLE; AND  
1046 DR. ROBERT L. BERGMAN, CONSULTANT TO ENEWETAK PEOPLE

1047 Mr. MURTHA. Now, Mr. Mitchell, as I understand, is the  
1048 counsel.

1049 Mr. MITCHELL. Yes, sir.

1050 Mr. MURTHA. Mr. Mitchell, you have 20 minutes for a  
1051 presentation. If you will introduce your colleagues, and  
1052 then we will proceed.

1053 We have two statements. Both of those statements will  
1054 appear for the record.

1055 [The statements of Theodore R. Mitchell and Robert L.  
1056 Bergman follow:]

1057

1058 \*\*\*\*\* INSERT 1b-1 \*\*\*\*\*

1059 Mr. MITCHELL. Thank you. To my right is John Silk, who  
1060 will serve as translator.

1061 To his right is Hertes John, Magistrate. To his right is  
1062 Napataly Peter, a substitute for his father, who is too aged  
1063 to make the trip this time.

1064 Binton Abraham, and next to him is Sam Levi, Secretary to  
1065 the Counsel.

1066 Mr. MURTHA. We have your statement for the record, Mr.  
1067 Mitchell. We know this is a very difficult problem, but  
1068 hope you can handle it in 20 minutes.

1069 Mr. MITCHELL. We will certainly try. The Magistrate  
1070 would like to make a brief opening statement, translated by  
1071 Mr. Silk.

1072 Mr. JOHN. (through interpreter) Mr. Chairman, it is a  
1073 great pleasure to appear before you and this committee. I  
1074 have only a few comments to make at this time.

1075 I would like to extend our greetings to you and members of  
1076 the committee.

1077 Mr. Chairman, I want to thank you and the members of this  
1078 committee for the funds which were appropriated last year  
1079 for a boat for the use of the people of Enewetak, and also  
1080 for the funds that were also appropriated for the  
1081 supplemental food program.

1082 There are, however, a few things which still need to be  
1083 accomplished, and we would like to ask the assistance of



1084 this committee.

1085 One of these things is the return of the people of Enjebi  
1086 to Enjebi Island. We would like to renew our request for  
1087 your committee's help to rebuild the necessary houses and  
1088 plan the Island.

1089 Another matter of importance to us is the radiation health  
1090 program intended for the islands affected by the nuclear  
1091 testing program.

1092 We ask your assistance in encouraging the Department of  
1093 Interior to complete the plan. That, too, also needs  
1094 funding.

1095 Mr. Chairman, in order to facilitate our presentation, we  
1096 have asked our lawyer, Mr. Mitchell, and our doctors to  
1097 speak on our behalf. Before I give these gentlemen the  
1098 balance of the time allotted for our presentation, I would  
1099 like to make a general statement about the desires of the  
1100 people of Enewetak.

1101 As you are aware, Mr. Chairman, the Atoll of Enewetak has  
1102 contributed substantially to the nuclear capability of this  
1103 country. As a result, millions of people in this country  
1104 have benefited from the use of Enewetak.

1105 Today, the people of this country can be confident that  
1106 they have a strong military defense system to defend their  
1107 country and their homes.

1108 Enewetak, a small dot on the world globe, made a large

1109 part of this possible. Today we, the people of Enewetak,  
1110 ask the greatest and most powerful country on the face of  
1111 the earth to extend a helping hand to the 678 people of  
1112 Enewetak.

1113 Mr. Chairman, there is a special relationship between the  
1114 Government of the United States and people of Enewetak. We  
1115 did not initiate this relationship, nor were we given a  
1116 choice. But the fact is, if it is there, it exists.

1117 This is all I have to say, Mr. Chairman. Thank you and  
1118 the members of this committee on behalf of the people of  
1119 Enewetak. Thank you.

1120 Mr. MURTHA. Because of my time constraints, we are going  
1121 to adjourn until 1:00 o'clock, then let you come back at  
1122 1:00 o'clock and make your additional comments.

1123 I would ask, Mr. deYoung, for you to bring your delegation  
1124 back at 1:00 o'clock, also, in case you are needed.

1125 Mr. MITCHELL. Mr. Chairman, I think it would be helpful  
1126 if we had the same DOE people back.

1127 Mr. MURTHA. He is going to bring DOE and Interior back.

1128 The committee will now adjourn until 1:00 p.m. Thank you.

1129 (Whereupon, at 11:20 a.m., the subcommittee recessed, to  
1130 reconvene at 1:00 p.m., the same day.)

1131 RPTR KNOWLES

1132 1:30 p.m.

1133 AFTERNOON SESSION

1134 Mr. YATES. Sorry I couldn't be here this morning. I had  
1135 some important business in another Appropriations  
1136 subcommittee, and I had to interrogate a witness there.

1137 Mr. Mitchell.

1138 Mr. MITCHELL. Thank you very much. It is a pleasure to  
1139 have you chairing the meeting this afternoon. We covered  
1140 the preliminary matters rather well this morning with Mr.  
1141 Murtha.

1142 The elderly gentleman who was with us last year, Mr.  
1143 Peter, was not able to make the trip again. In his place is  
1144 his son, Nepataly Peter. Some of the other faces here are  
1145 familiar to you, I am sure. Hertes John, the Magistrate;  
1146 Binton Abraham, from the northern part of the atoll, Enjebi  
1147 Iroi; and Sam Levi is the Secretary.

1148 Mr. YATES. We welcome them all.

1149 Mr. MITCHELL. To my left we have three doctors, three  
1150 different types. Dr. Brill is our advisor with respect to  
1151 cancer, somatic effects of radiation. Dr. Bender is a  
1152 geneticist knowledgeable about the genetic effects of  
1153 radiation. Dr. Berman, to my immediate left, is a  
1154 psychiatrist. He will bring to you some new information  
1155 which hasn't been presented before.

1156 Mr. YATES. I undestand their statements are all part of  
1157 the record, too.

1158 [The information follows:]

1159

1160 \*\*\*\*\* INSERT 2-1 \*\*\*\*\*

1161 Mr. MITCHELL. That is right.

1162 Mr. YATES. You may proceed.

1163 Mr. MITCHELL. There are two issues that I, given our  
1164 limited time, I think we ought to focus on. That is Enjebi,  
1165 resettlement of that particular island within the atoll.  
1166 Then, if we may, if there is sufficient time, the radiation  
1167 health program, which was authorized a year ago, and still  
1168 is yet to be planned and budget put together, even though  
1169 the Department of the Interior is bringing you a report of  
1170 January 1 this year.

1171 Mr. YATES. Is Interior here?

1172 Mr. MITCHELL. They are here.

1173 Mr. YATES. What happened to the report we were to receive  
1174 earlier this year?

1175 Mr. DEYOUNG. A preliminary report was supplied on January  
1176 7, 1981. It set forth some of the difficulties we had  
1177 experienced in preparing the final plan. Clarification is  
1178 being sought and a final proposal will be forthcoming in  
1179 time.

1180 Mr. YATES. In time means what time?

1181 Mr. DEYOUNG. Within the <sup>next</sup> ~~next~~ six months, perhaps.

1182 Mr. YATES. Did we have a hearing on what the preliminary  
1183 plan indicated?

1184 Mr. DEYOUNG. Not as yet.

1185 Mr. YATES. Go ahead, Mr. Mitchell.

1186 Mr. MITCHELL. I will be happy to come back to that in due  
1187 course. It seems to us--and what I will try to do here is  
1188 just lay a general background for comments from the experts,  
1189 and to enable you to more skillfully cross examine--it seems  
1190 to us that the Enewetak cleanup and rehabilitation program,  
1191 in large part, is a great success story. It is, I think on  
1192 the part of nearly everyone involved, from the Enewetak  
1193 people, to the Department of Defense, even the Department of  
1194 Energy and in many ways, the Department of the Interior as  
1195 well, although we are rather critical of them.

1196 I think that with respect to the precise question of the  
1197 resettlement of Enjebi, which is the largest part of the  
1198 unfinished business before us, we have approached that  
1199 question in the most reasonable and prudent fashion so as to  
1200 make an informed choice, an informed decision.

1201 Just to outline in the briefest possible way what we have  
1202 done, starting with the cleanup program, which was part and  
1203 parcel of the cleanup program was a continual radiological  
1204 assessment of what was being done and what should be done  
1205 next.

1206 Once the cleanup was finished, there was another  
1207 radiological survey. Soil measurements, in particular at  
1208 Enjebi. Once the plutonium problem was solved so the soil  
1209 concentrations of plutonium were at or below 40 microcuries  
1210 per gram, it then became a question of what will the radio

1211 nuclids do in the food chain?

1212           Following the soil measurements that were made after the  
1213 cleanup was finished, we then called upon the Department of  
1214 Energy, through the Lawrence Livermore Laboratory in  
1215 California, to do an updated dose assessment. They have  
1216 done that, and you have before you, presented earlier this  
1217 morning, a final dose assessment which, standing alone,  
1218 doesn't mean very much to us.

1219           Its conclusion is a number, a predicted radiation dose  
1220 which is based upon the soil measurements, the diet to be  
1221 observed by the people, and the way they intend to live upon  
1222 that island. Now that has been done.

1223           The next reasonable and logical step--well it looks like  
1224 that.

1225           Dr. BENDER. This is the document?

1226           Mr. MITCHELL. Bruce, was the final dose assessment  
1227 provided this morning? I assumed that it was.

1228           Dr. WACHHOLZ. ~~You were presented this morning.~~ DOSE ASSESSMENT.  
*THE COMMITTEE RECEIVED COPIES OF THE FINAL ENEWETAK*

1229           Mr. YATES. That was a different one.

1230           Mr. MITCHELL. Basically the dose assessment is  
1231 straightforward, although extremely complicated and  
1232 involving a lot of calculations.

1233           Mr. YATES. Do you have notes on this?

1234           Dr. BENDER. No.

1235           Mr. YATES. All right, thank you.

1236 Mr. MITCHELL. It is a matter of taking all the soil  
1237 measurements, measurements of the radio nuclids on the  
1238 island, putting that together with what people intend to  
1239 eat, then calculating what the dose will be. That is what  
1240 we have done here. The prediction of the dosage is  
1241 expressed in MIL/REM. We give those numbers to Dr. Bender  
1242 and Dr. Brill and ask them, what do they mean?

1243 Last ar, we provided you a copy of their report, this blue  
1244 covered document. Since that report was completed, the dose  
1245 assessment, the final dose assessment has been done. So we  
1246 have asked Dr. Brill and Dr. Bender, to revise their report.  
1247 You have before you their statements, which does that. What  
1248 we would like to do, in due course, is have both Dr. Brill  
1249 and Dr. Bender comment briefly upon their interpretation of  
1250 the dose as it now stands.

1251 Then finally, once the dose, the predicted dose is  
1252 interpreted in terms of health effects, an increase in the  
1253 risk of cancer, an increase in the risk of genetic effects,  
1254 once we have that interpretation from Dr. Bender and Dr.  
1255 Brill, the people then are in a position to evaluate that  
1256 increased risk in terms of everything else that is important  
1257 to them--the value of their land,, the value of  
1258 reestablishing the community at Enjebi, which to them, is of  
1259 vital importance.

1260 We brought Dr. Bergman along because we asked him sometime



1261 ago, to take a look at all of this, and tell us from the  
1262 perspective of a behavioral scientist, what effect it may  
1263 have upon the people to keep them away from Enjebi. His  
1264 evaluation has been provided to you as a written report for  
1265 the record, and we would like him to have the opportunity to  
1266 speak briefly to that question. There are potential ill  
1267 effects from keeping people away from Enjebi.

1268 Mr. YATES. No ill effects from keeping the people away?

1269 Mr. MITCHELL. There are. There are potential ill  
1270 effects, health effects in keeping them away.

1271 Mr. YATES. In other words, they want to go home?

1272 Mr. MITCHELL. That is right. They want very badly to go  
1273 home. They feel very badly, as long as they cannot.

1274 Mr. YATES. We read the report submitted by Drs. Bender  
1275 and Brill. The conclusion says, after stating premises:

1276 "We have reexamined our earlier Enewetak health effects  
1277 estimates in light of the more recent dose and cancer risk  
1278 coefficient estimates. We find the risk is still small. We  
1279 note that our revised estimates remain in remarkably good  
1280 agreement with those provided by DOE. We still conclude it  
1281 is entirely possible that the radiation exposures of the  
1282 Enewetak people, resulting from return of the dry Enewetak  
1283 to the southern Islands, and the dry Enjebi to their home,  
1284 will never result in even a single case of disease among  
1285 either the returning population."

1286           You mean or their descendants rather than of their  
1287 descendants?

1288           Dr. BENDER. There are several typos.

1289           Mr. YATES. That is a typo, isn't it? Or their  
1290 descendants.

1291           Mr. MITCHELL. It may be helpful, since the numbers--we  
1292 might as well deal with this quite openly--the numbers in  
1293 this dose assessment you now have before you, the final dose  
1294 assessments are somewhat higher than the ones contained in  
1295 the preliminary dose assessment that formed the basis of the  
1296 earlier estimates made by Dr. Bender and Dr. Brill.

1297           Mr. YATES. But they concluded nevertheless that, even  
1298 though they are higher, they nevertheless are small, and  
1299 therefore, should not affect them. Is that a correct  
1300 conclusion?

1301           Dr. BERGMAN. That is correct.

1302           Dr. BENDER. Yes sir.

1303           Mr. YATES. What about the rate of increase? You  
1304 indicated that on the basis of the two studies, the later  
1305 study showed a higher incidence, if I understood what Mr.  
1306 Mitchell is saying. If that is true, is there a rate that  
1307 might affect them if they return?

1308           Dr. BENDER. No. The dose assessments have been revised,  
1309 generally upwards. In the order of 20 percent. In a  
1310 general way the effects about which we are concerned are a

1311 linear function of accumulated doses, say 30 years or 50  
1312 percent. So it is inevitable that the health effects  
1313 estimate matter will increase as dose increases. That does  
1314 not mean that the risk per unit dose is any different, nor  
1315 that there will be greater risks in future years as a result  
1316 of some accumulations of doses. We have accounted for that.

1317 In fact, the risk later on, after about eight years in the  
1318 case of Enjebi, whether we start having locally grown  
1319 coconuts and things available, will start to decline.

1320 Mr. YATES. Really?

1321 Dr. BENDER. And the risks will decline with each  
1322 succeeding generation, generally.

1323 Mr. YATES. The soil is clear then, and coconuts grown on  
1324 that land will not have the same effects as the coconuts--  
1325 where was that? Bikini, yes. Are you familiar with Bikini?

1326 Dr. BENDER. Yes, to an extent.

1327 Mr. YATES. Yes, well we took them off the Bikinis because  
1328 they were eating the coconuts. I guess they had a higher  
1329 incidence of possible cancer producing agents than is  
1330 present at Enewetak or Enjebi.

1331 Dr. BENDER. The Bikini people, as I understand the  
1332 situation, some of them were moved back,, and did indeed eat  
1333 a lot of coconuts, and were found indeed to have higher body  
1334 burdens than had been anticipated, when it was anticipated  
1335 they would not be eating so many coconuts.

1336           The present final reassessment of potential radiological  
1337 doses for Enewetak is based on several things. It is based  
1338 on soil radio nuclid measurements. It is based on knowledge  
1339 about the uptake of those radio nuclids from the soil into  
1340 things like coconuts. And it is based on the diet that we  
1341 believe the people of Enewetak will follow. It is given in  
1342 fact in terms of availability to outside foods and  
1343 nonavailability of outside foods. So these factors are  
1344 taken care of in the dose assessment here, I believe.

1345           Mr. YATES. What would be the requirement for outside  
1346 foods? Will they have to be----

1347           Mr. MITCHELL. The preferred diet of the Enewetak people--

1348           Mr. YATES. Is it indigenous, or will it have to be  
1349 imported?

1350           Mr. MITCHELL. As it now stands, based on a survey taken a  
1351 little while back, the dietary survey, the figures in this  
1352 dose assessment, they prefer to eat 60 percent imported  
1353 foods, 40 percent local.

1354           Mr. YATES. What food will they have locally?

1355           Mr. MITCHELL. Coconut, bread fruit, bananas. Taro is not  
1356 available. The islands just won't sustain them.

1357           Dr. BENDER. Pork, chicken, seafood.

1358           Mr. YATES. They have that. Small farms?

1359           Mr. MITCHELL. Well, pigs and chickens, back yard farming.

1360           Mr. YATES. What did they do before the bombs, and before

1361 the war, as far as their food?

1362 Mr. MITCHELL. Before the war the islands were in much  
1363 better shape.

1364 Mr. YATES. I am sure they were, but what did they eat?

1365 Mr. MITCHELL. The same thing.

1366 Mr. YATES. They didn't import did they?

1367 Mr. MITCHELL. Hertos John will be the expert witness on  
1368 that.

1369 Mr. SILK. Before war, what kind of diet did they observe?

1370 (Mr. Silk is interpreting for Hertos John)

1371 Mr. SILK. Before the war, we used to eat pork, chickens.

1372 Mr. YATES. The same thing they eat now?

1373 Mr. SILK. Fish, taro, banana, bread fruit, lime. Those  
1374 are the things----

1375 Mr. YATES. Are those still present on Enewetak?

1376 Mr. SILK. No.

1377 Mr. YATES. They are not?

1378 Dr. BENDER. But they will be. They have been planted on  
1379 Enewetak and other islands. They have not yet, I believe,  
1380 be replanted on Enjebi.

1381 Mr. MITCHELL. I was at Enewetak the middle of the month.  
1382 The houses are beautiful. The coconut trees are about knee  
1383 high. Bread fruit trees, most of them were blown away in a  
1384 storm a few weeks ago. It looks like a newly completed  
1385 housing project in Scottsdale, Arizona. It is desolated.

1386           The long ranging agricultural program, which is a matter  
1387 before you as part of the Administration request, is  
1388 something that is a very, rather prosaic, but vital part of  
1389 the follow-on, is also something we support. But this kind  
1390 of thing, as I implied in the question is what really is  
1391 needed to restore Enewetak to its original conditions so it  
1392 could support the people at a reasonable standard of living.

1393           Mr. MURTHA. Will they ever become self-sufficient in  
1394 food?

1395           Mr. YATES. As they were before?

1396           Mr. MITCHELL. They will always probably need to import  
1397 some food. But self-sufficiency for that atoll, development  
1398 of an economy for that atoll, is the prime objective of  
1399 these people now.

1400           We have been talking to the Solar Power Corporation, a  
1401 subsidiary of Exxon to develop a solar power program for the  
1402 island. We are tapping all the businessmen we know or can  
1403 find to put together a kind of round table to begin coming  
1404 up with ideas for exploitation of the marine resources. The  
1405 boat which you appropriated last year will help in that  
1406 regard. Ultimately, this will be the test of whether the  
1407 whole effort is successful.

1408           Mr. YATES. Maybe you ought to ask the psychiatrist  
1409 whether that is good or bad.

1410           Is it good?

1411 Go ahead, Mr. Murtha.

1412 Mr. MURTHA. How many more people today, than say before  
1413 the war?

1414 Mr. MITCHELL. Just before Christmas, 1947, when they were  
1415 136. Now we need a current census. We have been using the  
1416 number 550, but Hertes, the Magistrate, tells me he thinks  
1417 it is about 770. It has been a while since there was an  
1418 accurate census.

1419 Mr. YATES. So you have got an island now that once  
1420 supported 136 people, now it will be required to support  
1421 over 600?

1422 Mr. MITCHELL. The tastes of the people have changed, too.  
1423 Even in those remote islands.

1424 Mr. YATES. Now they want television?

1425 Mr. MITCHELL. Well, I haven't heard that yet. But they  
1426 want outboard motors so they can go chase the tuna.

1427 Mr. YATES. The reason I asked Dr. Bergman the question  
1428 was, I had seen a television program, and of course Margaret  
1429 Mead's anthropological studies always raised the questions  
1430 about the return to the homes, and what impact of western  
1431 culture is likely to bring upon them. They will be going  
1432 home to their islands, we hope. Will the advent and  
1433 introduction of private enterprise change their culture to  
1434 the extent where they no longer have the same kind of  
1435 cultural relationships they had before?

1436 Dr. BENDER. I think the crucial think about social change  
1437 is how it occurs. Particularly whether it is something that  
1438 comes from within the culture, as evolutionary change,  
1439 something that makes sense to them and that they want, or  
1440 whethe it comes as a big shock. There is evidence that  
1441 cultural change among any of us hsa certian effects on  
1442 health. There is a lot of evidence also that forced  
1443 cultural change and destruction of the culture has much more  
1444 severe health effects.

1445 Mr. YATES. Do they want the introduction of Mr.  
1446 Mitchell's clients, like Exxon?

1447 Mr. MITCHELL. Exxon is not my client. We are trying to  
1448 exploit them.

1449 Mr. YATES. Allright, exploitees, then.

1450 Mr. MITCHELL. It is imperative that whatever business or  
1451 economic enterprises are developed, are developed with the  
1452 full participation, and ultimately, based upon the decisions  
1453 of the people themselves. We are not looking for  
1454 businessmen driven by a profit incentive as much as we are  
1455 altruism.

1456 Mr. YATES. I know that. But altruism soemtimes had  
1457 deleterious effects.

1458 Mr. MITCHELL. It could indeed. We are acutely aware of  
1459 that.

1460 Mr. YATES. Right. They go home--I don't remember, I



1461 should I think, but I don't remember what the social  
1462 structure will be like when they get home. Do they have  
1463 community ownership of the property again? How do they  
1464 allocatge the resources of the community? How does each one  
1465 receive a proportion? Have they agreed to this kind of an  
1466 approach yet? Will they go back to their ancestral holding  
1467 and cultures, or how will it take place?

1468 Mr. MITCHELL. I can asnswer that in part. And all of the  
1469 people--there are now 100 people who have returned to  
1470 Ujelang. But every;body has resettled to Enewetak, the  
1471 southern islands of the atoll. Enjebi is yet to be decided.

1472 Everybody decided to go back on an experimental basis to  
1473 see whether they could survive and function there, starting  
1474 about last September, late last fall. All but 100 are still  
1475 living there now on the islands of Enewetak, Majuro and  
1476 Enjebi.

1477 During the planning for the rehabilitation program, the  
1478 planning council selected by the people themselves went  
1479 back, actually marched up and down the islands and  
1480 reestablished all the traditional parcels--latos--out to the  
1481 lagoon and sea. All those were reestablished. The land  
1482 rights associated therewith were in fact reestablished  
1483 through that process.

1484 Mr. YATES. Without complaint from anybody?

1485 Mr. MITCHELL. There were differences. At times there

1486 were sharp differences. They have all been settled amicably  
1487 among the group itself. They were left entirely to do that  
1488 sort of thing. I wasn't involved. We didn't let anybody  
1489 else be involved, we left them alone to do it themselves.  
1490 In terms of--these people have been isolated all these years.

1491 Mr. YATES. Answer my question. What happens to the  
1492 products of the soil here, or to the food?

1493 Mr. MITCHELL. I think we better turn to Hertos John for  
1494 that.

1495 Mr. YATES. Hertos, what happens now? Suppose you go  
1496 back, suppose they go back to the islands. How do they  
1497 distribute all of the food, how do they distribute the land,  
1498 how do they distribute the leadership, the ownership? Tell  
1499 us about the culture.

1500 Mr. SILK. Before we return, we have a planning council--  
1501 committee--to take care of that. We try to work it out as  
1502 best we could, try to redistribute the lands according to  
1503 what we know before we left Enewetak.

1504 Mr. YATES. The lands have been taken care of. What about  
1505 distribution of food.

1506 Mr. SILK. Distribution of food is not--we haven't decided  
1507 on that.

1508 Mr. YATES. I know, but if you go back, there are going to  
1509 be imports of food that hasn't been grown. You now have  
1510 over 500 or 600 people, where previously you had 136. The

1511 land was distributed on the original 136, or was it  
1512 distributed to the 500 and some? How was the land  
1513 distributed?

1514 Mr. SILK. We are distributing the land according to the  
1515 lineage system.

1516 Mr. YATES. I don't know what that means.

1517 Mr. SILK. It means according to your family, coming from  
1518 your mother's side.

1519 Mr. YATES. Do the descendants of the mother's own the  
1520 land now?

1521 Mr. SILK. The land is decided two ways. You get your  
1522 land rights from your mother's and also from your father's.

1523 Mr. YATES. That is kind of a double lineage system, then.  
1524 But the thing I am wondering about is, is there an overflow  
1525 of people here who don't own anything?

1526 Mr. SILK. No, they will still have land.

1527 Mr. YATES. I don't understand that. Unless all the land-  
1528

1529 Mr. MITCHELL. Can you just explain based on what you  
1530 understand? John Silk is with our office in Majuro and also  
1531 served as translator. I think he may be able to provide the  
1532 answer. What increasing population, how do they continue to  
1533 allocate land so everybody gets some, that is the question.

1534 Mr. YATES. If they do, if in fact they do, because what  
1535 happens to the product of the soil? Presumably if he owns a

1536 plot of land and plants his food there, how does the person  
1537 who doesn't own land get fed?

1538 Mr. SILK. To answer the question, according to what I  
1539 know about land distribution, I haven't heard of any Majuro  
1540 who doesn't have land right in the Marshall Islands.

1541 Mr. YATES. They all have a land right?

1542 Mr. SILK. All the families have a land right.

1543 Mr. YATES. Some own more land than others?

1544 Mr. SILK. That could be true, yes. But there is no one  
1545 person that you can say owns a piece of property, because  
1546 the land rights are within the family unit, the group. It  
1547 is not parcelled out to individuals.

1548 Mr. YATES. Are there any people who wouldn't have some  
1549 interest in some island somewhere? Apparently not.

1550 Mr. SILK. It could be that there will be some people who  
1551 have land rights on one island but don't have it on the  
1552 other island. But that doesn't mean they don't have any  
1553 land rights at all.

1554 Mr. YATES. Okay. Well, how are they going to get fed?

1555 Mr. SILK. Either they will get their food from the  
1556 parcels of land that their families have or---

1557 Mr. YATES. Imported?

1558 Mr. SILK. Imported.

1559 Mr. YATES. How will the imported food be distributed?

1560 Mr. MITCHELL. That is a current question. They are doing

1561 that now. How is it done?

1562 Mr. SILK. We distribute that according to the population,  
1563 how many people are there.

1564 Mr. YATES. Equal shares?

1565 Mr. SILK. Equal shares.

1566 Mr. YATES. Okay. So there is no trouble in paradise,  
1567 right?

1568 Mr. SILK. There could always be trouble.

1569 (Laughter)

1570 Mr. SILK. But we try to do our best to try to distribute  
1571 equally.

1572 Mr. YATES. All right. Do they have any trouble? Okay,  
1573 what are the troubles?

1574 Mr. SILK. Well, like now, there are a number of our group  
1575 who are not on Enewetak. They are on the other islands,  
1576 Marshall Islands. And they want to get a share. As it is  
1577 right now, the standing is that we divided the food among  
1578 the people who are actually living on that island. So there  
1579 is another problem.

1580 Mr. YATES. How is that going to be solved?

1581 Mr. SILK. Those people will have the food we give them,  
1582 and there won't be any problem.

1583 Mr. YATES. Do they know the results of the reports, does  
1584 the chief know the results of the reports we have showing  
1585 what the incidence is and so forth? Are they aware that

1586 there is a possible danger? The doctors aren't willing to  
1587 say there is no possible danger, are you?

1588 Dr. BENDER. We are not. We have tried to explain to them  
1589 the risks as we see them. I believe they understand them.

1590 Mr. MITCHELL. In September 1979, the Department of Energy  
1591 and Department of Interior representatives, as well as Dr.  
1592 Bender and Dr. Brill and the rest of us, went to Ujelang  
1593 where the people were staying. I wish we had had more time.

1594 The Department of the Interior was anxious to get the boat  
1595 back again. Department of Energy made a lengthy  
1596 presentation. We met with Bender and Brill and another  
1597 doctor. We evaluated the dose assessment. People  
1598 considered the risk estimates which were before us then,  
1599 which as you now know, are just slightly less than what you  
1600 are now looking at.

1601 The people weighed that in with all the other  
1602 considerations important to them. The restricted land base,  
1603 the need for everyone to inhabit where they traditionally  
1604 belong. They decided it was resettlable. They asked us to  
1605 come here and ask for the funds to do that.

1606 Mr. YATES. How much money is needed?

1607 Mr. MITCHELL. The unofficial Interior estimate, I think,  
1608 as \$6 million.

1609 Mr. YATES. How do we resettle them if the Secretary of  
1610 the Interior says they shouldn't be resettled, which is the  
1611 condition at the present time?

1612 Mr. MITCHELL. You are referring to the early January  
1613 letter?

1614 Mr. YATES. The letter of January 5th by the Deputy Under  
1615 Secretary, who says, Cecil Andrus, said the Secretary of  
1616 Interior determined that radiation exposure falls below  
1617 Federal standards.

1618 Further, the Secretary believes the most acceptable way to  
1619 ensure the people of Enjebi to return to their homeland in  
1620 the future would be for the establishment of a housing trust  
1621 fund to be used only when Enjebi Island was deemed safe for  
1622 habitation.

1623 Well, the doctors are deeming it safe. What about the  
1624 Department of Interior, are they deeming it safe?

1625 Mr. MITCHELL. That is the old Department of Interior.  
1626 We have called upon them to reconsider.

1627 Mr. YATES. Well, Mr. Bettenberg represents the new  
1628 Department of Interior. He used to represent the old one;  
1629 now he represents the new one.

1630 Mr. MITCHELL. Just so it is clear, we have written and  
1631 called upon the new Department of Interior to reconsider  
1632 this. They have said they will do this.

1633 Mr. YATES. Who is "they?"

1634 Mr. MITCHELL. In this case, it is either Billy Lee Hart,  
1635 or one of the under secretaries. I can provide a copy of  
1636 the letter for the record.

1637 [The information follows:]

1638

1639 \*\*\*\*\* COMMITTEE INSERT \*\*\*\*\*



1640 Mr. YATES. Who from Interior wants to comment on that?

1641 Mr. BETTENBERG. I frankly can't.

1642 Mr. YATES. How about Mr. deYoung?

1643 Mr. DEYOUNG. I would be happy to.

1644 Mr. YATES. What is your title, Mr. deYoung?

1645 Mr. DEYOUNG. Senior Assistant for Office of Territorial  
1646 and International Affairs. I would be happy to comment on  
1647 that.

1648 Mr. Mitchell is correct. On behalf of the people of  
1649 Enewetak, he has submitted a letter to Secretary Watt,  
1650 requesting the Secretary to re-examine Secretary Andrus'  
1651 decision.

1652 This issue is before the new Administration and will be  
1653 reviewed.

1654 Mr. YATES. When was that done? When did you give  
1655 Secretary Watt the new letter?

1656 Mr. DEYOUNG. I would say probably about two <sup>to three</sup> weeks ago.  
1657 But it is pending. It will be looked at.

1658 Mr. YATES. What is your feeling, personally, about what  
1659 the findings of the doctors are, and what about your  
1660 advisors?

1661 Where is the gentleman from DOE?

1662 Mr. DEYOUNG. We have the DOE contingent in the rear of  
1663 the room.

1664 Mr. YATES. There is no hiding place in here, you know.

1665 Mr. MITCHELL. Mr. Chairman, I might sharpen the issue a  
 1666 bit by suggesting a question. The letter here says that the  
 1667 radiation standards are not complied with. I would assert,  
 1668 shall now assert.

1669 Mr. YATES. "I do now assert."

1670 Mr. MITCHELL. I do now assert that the dosages you are  
 1671 looking at in this final report are within the radiation  
 1672 protection guides, the most stringent government criteria.

1673 Mr. YATES. Mr. deYoung, having heard your assertion,  
 1674 wants to reply.

1675 Mr. DEYOUNG. I would like to remind the committee, as  
 1676 well as Mr. Mitchell--

1677 Mr. YATES. I don't like the way this begins.

1678 Mr. MITCHELL. I am used to it.

1679 Mr. DEYOUNG. That when the Armed Services committee  
 1680 originally <sup>authorized</sup> [appropriated] money for the start of the clean-up,  
 1681 <sup>it</sup> they directed and ordered that there should be no  
 1682 resettlement in Enewetak Atoll, unless the <sup>recommendations on radiation</sup> ~~rem~~ set by the  
 1683 ~~Department of the then~~ AEC be followed.

1684 Because of uncertainties, the EPA at that time recommended  
 1685 that the 500-rem level <sup>reduced</sup> ~~be~~ cut in half, to 250. We were  
 1686 <sup>directed</sup> ~~ordered~~ not to do any resettlement unless <sup>the</sup> ~~the~~ 250-rem level <sup>was</sup> ~~was~~ followed.

1687 Mr. Mitchell is perfectly aware of this. All of the  
 1688 Enewetak resettlement program has been on the basis of 250  
 1689 rem. This is not a <sup>Federal</sup> standard.

1690 This was a recommendation we were directed to follow.

1691 Mr. YATES. I know. The fact Mr. Mitchell is aware of

1692 that doesn't mean it is right.

1693 Mr. DEYOUNG. I know. What I am saying is that the

1694 *resettlement and* rehabilitation program that was carried out was ~~carried out~~ *done*

1695 under a directive from a committee of the U.S. Congress.

1696 Mr. YATES. Which committee?

1697 Mr. DEYOUNG. The *Senate* Armed Services committee.

1698 Mr. YATES. When?

1699 Mr. DEYOUNG. That *authorized* ~~appropriated~~ the original money for

1700 the clean-up program.

1701 Mr. YATES. Mr. Mahoney's committee? Was this

1702 appropriations, or Armed Services committee?

1703 Mr. DEYOUNG. *In Senate* Armed Services *Committee, July 26, 1955.*

1704 Mr. YATES. *Senate Committee Report 94-157.* They can't appropriate. They recommend.

1705 Okay.

1706 How realistic is the 250,000? *?*

1707 Mr. DEYOUNG. It is met in the southern islands. There

1708 is no problem at all.

1709 Mr. YATES. That is fine. Does the Secretary's directive

1710 apply to the southern islands as well?

1711 Mr. DEYOUNG. That's correct.

1712 Mr. YATES. Then the Secretary's letter won't let them go

1713 back to the southern islands, will it?

1714 Mr. DEYOUNG. No, I am saying the southern islands are

1715 way below <sup>the</sup> 250, level.

1716 Mr. YATES. They are already there. Does the Secretary  
1717 agree with that?

1718 Mr. DEYOUNG. Yes, there is no problem with the southern  
1719 islands.

1720 Mr. YATES. Just the northern islands?

1721 Mr. DEYOUNG. Just the northern islands and Enjebi.

1722 Mr. YATES. Do we have a map?

1723 Mr. MITCHELL. The eastern chain. Then you come to  
1724 Enjebi near the top.

1725 Mr. YATES. Enjebi is right at the north.

1726 Mr. MITCHELL. That is right. That is where about half  
1727 the people once lived.

1728 Mr. YATES. And they want to go back there. What about  
1729 the other small islands? Were they never occupied?

1730 Mr. MITCHELL. They were always available for copra  
1731 production and gathering of food.

1732 Mr. YATES. Will they be available? Oh, that is where  
1733 they deposited everything, isn't it? Yes, I remember now.  
1734 It's been a year.

1735 I hadn't really remembered it so well. I see Runet, named  
1736 after Yvonne.

1737 Mr. MITCHELL. That was the English name for the islands.  
1738 The applicable radiation guide--

1739 Mr. YATES. Is the only dispute left Enjebi?

1740 Mr. MITCHELL. That's it. Enjebi has two numbers in it.  
1741 Annual rate, and a 30-year dose.

1742 Mr. YATES. How far above 250 are you in Enjebi?

1743 Mr. MITCHELL. 250 is the wrong number with all due  
1744 respect. It is 500.

1745 Mr. YATES. 250 is the number Mr. deYoung used.

1746 Mr. MITCHELL. Mr. deYoung respectfully is mistaken. The  
1747 DOE people will agree he is mistaken. The applicable number  
1748 is 500 millirem. On an annual basis.

1749 In 30 years, which is the dose of relevance to genetic  
1750 effects, five rem, or 5000 millirem, is the guide, not the  
1751 limit, not the limit, but the guide.

1752 The limits you see for dose, page 8 of our statement, 226  
1753 millirem is the dose our doctors tell us is relevant on an  
1754 annual basis.

1755 So 226 as against a standard of 500 millirem. For the 30-  
1756 year dose, we are 1.8 above the five, above the standards  
1757 themselves, radiation protection guidance, expressly  
1758 permits, where justified, a dose at a rate higher than five  
1759 in 30 years, if there is a good reason for doing so.

1760 The 1.8 difference between the five rem, and the 6.8 which  
1761 is the prediction, is a matter I would like our doctors to  
1762 comment upon.

1763 They say it is not a dangerous thing by any means. And I  
1764 would challenge the DOE to say otherwise.

1765 Mr. YATES. A question I should like to ask is, suppose  
1766 there were no remnants, relics of the bomb blasts. What  
1767 would be the rems that would be applicable just in a sunlit  
1768 island like that, much lower than the consequences as a  
1769 result--

1770 Dr. BRILL. 3.5 microrads per hour or an annual dose of  
1771 30.7 millirem per year, as opposed to Denver, which is 140.3  
1772 millirem. 140 versus 30.

1773 Mr. YATES. Because Denver is higher?

1774 Dr. BRILL. Higher, and also because of the naturally  
1775 occurring radioactive materials on the Colorado Plateau.

1776 Dr. BENDER. Also because they are closer to the equator,  
1777 which influences the cosmic rate.

1778 Dr. BRILL. A fourth, or one-fifth.

1779 Dr. BENDER. As we pointed out in the 1979 document, the  
1780 kinds of doses we are talking about for the people of  
1781 Enjebi, should they return, certainly the people of Enewetak  
1782 as they have returned, are in the general range of exposures  
1783 that people around the world take voluntarily, and nobody is  
1784 the least bit concerned.

1785 That is to say, people choose to live in Denver, and  
1786 nobody says, 'Well, that is dangerous, and we have to move  
1787 them away.'

1788 Elsewhere in the world, there are some rather high  
1789 radiation background areas, in Brazil and India, where

1790 people live and receive doses far in excess of any being  
1791 considered here.

1792 That, of course, is not to consider cases of occupational  
1793 exposure which we allow. So this is not an unusual  
1794 situation.

1795 Mr. YATES. Is there a question here of 'hold  
1796 harmless'?

1797 Mr. MITCHELL. That is raised now and then and I always  
1798 feel a little uncomfortable when it is, because I don't  
1799 think legally the Enewetak people could release the U.S.  
1800 Government in any case from some future harm which could  
1801 occur.

1802 On the other hand, based on everything we know, we don't  
1803 foresee anything of that sort anyway.

1804 Mr. YATES. That's probably the reason you got the letter  
1805 from the Secretary, because there wasn't a 'hold-harmless'  
1806 provision.

1807 Mr. MITCHELL. I think the problem is two-fold. They are  
1808 fearful of adverse publicity. They are fearful more so this  
1809 day with lawyers chasing all over the islands, talking about  
1810 suing for millions and millions of dollars, and they are  
1811 even more afraid of adverse publicity from lawsuits.

1812 It makes our job even more difficult.

1813 Mr. YATES. Let's hear from DOE now. Mr. Deal, wherever  
1814 you are.

1815 I know there is <sup>DR.</sup> ~~Mr.~~ Wachholz, but Mr. Deal is bigger than  
1816 Dr. Wachholz.

1817 Come on up, Mr. Deal, Dr. Wachholz and Dr. Burr.

1818 What is your feeling about all this? You have heard the  
1819 testimony by witnesses, Mr. Mitchell and the witnesses with  
1820 him. Mr. Deal has been answering questions in the past, not  
1821 too satisfactorily, but answering them nevertheless.

1822 What is your feeling about this now, Mr. Deal?

1823 Mr. DEAL. Since I can start, I can turn to my--

1824 Mr. YATES. Sure, of course you can.

1925 (Laughter.)

1826 Mr. DEAL. Mr. Chairman, I have heard a lot of things  
1827 that bring back old history to us, ~~as you may recall.~~

1828 ~~I will ask for a chance to correct history if I make a~~  
1829 ~~mistake, misstatement in my comments. But I think that~~

1830 ~~Everything Mr. Mitchell has said about the standards, we~~ <sup>WAS CONSIDERED WHEN</sup>

1831 ~~have to remember that the Atomic Energy Commission spent a~~  
1832 lot of time reviewing the clean-up criteria for Enewetak.

1833 ~~I think all of that has been a matter of record, before.~~ <sup>THESE DISCUSSIONS AND POSITION PAPERS ARE</sup>

1834 ~~When it was submitted, the arrangements that the Department~~ <sup>THE INITIAL ASSIGNMENTS WERE</sup>

1835 of Defense would do the clean-up operations, and ~~we~~ <sup>THAT THE ATOMIC ENERGY COMMISSION</sup> would

1836 establish the criteria, <sup>AND CERTIFY THE CLEANUP.</sup> The five commissioners themselves  
1837 considered this in great detail.

1838 It took several years to put this all together. The  
1839 numbers <sup>USED IN THE CLEANUP CRITERIA</sup> ~~that~~ <sup>PUBLISHED</sup> were used, all ~~that is laid out~~ as a matter of



1840 record in the EIS.

1841 So there is nothing new here in terms of what we could say  
1842 to you on that. The reasoning behind it <sup>IS AS GOOD</sup> today as it was  
1843 ~~in that time.~~ <sup>THEN THE CRITERIA DO</sup> We wanted to take a conservative approach.

1844 It is unfortunate that the ~~numbers~~ <sup>THAT REMAIN AFTER CLEANUP</sup> doses are so close  
1845 that there is no clear-cut yes or no. That is all I can  
1846 say. To comment on interpreting these standards, ~~it is~~  
1847 really a responsibility of EPA.

1848 They have received <sup>THE AUTHORITY OF</sup> the Federal Radiation Council, which  
1849 was the body established to promulgate radiation standards  
1850 for the government.

1851 That is their responsibility. They have the  
1852 interpretation of these. <sup>EPA CONCUR IN THE AEC</sup> They did ~~agree earlier in our~~  
1853 approach <sup>AND TO CLEANUP CRITERIA THAT WERE</sup> to the standards. We had letters from <sup>EPA</sup> ~~them~~  
1854 <sup>ON</sup> ~~approving~~ this. <sup>BE</sup> <sup>FOR THE DOD CLEANUP PROGRAM.</sup>

1855 Mr. YATES. Did Interior consult EPA on this at all?

1856 Mr. DEYOUNG. Yes.

1857 Mr. YATES. Did you consult EPA before the Secretary sent  
1858 his letter out in January?

1859 Mr. DEYOUNG. EPA has been involved in various meetings  
1860 and has testified before this committee.

1861 Mr. YATES. What is the attitude of EPA in this, does it  
1862 have one?

1863 Mr. DEYOUNG. EPA has said the Federal standards should  
1864 apply. They do apply.

1865 Mr. MITCHELL. Excuse me. The EPA has also said, and  
1866 somewhere in everybody's files, the letters are there, these  
1867 numbers I mentioned before, 500 millirem per year, 5 rem in  
1868 30 years, are not absolute ceilings.

1869 They have to be applied with judgment.

1870 Mr. YATES. I think the best thing to do is bring EPA in  
1871 and ask them. We did that in July, but this is a year  
1872 later.

1873 We have a new EPA. Maybe the new EPA will come to a  
1874 different conclusion. I don't know. Do you want to express  
1875 an opinion as to whether or not these people ought to go  
1876 back to Enjebi? You would rather not do it.

1877 Dr. Wachholz, would you like to express an opinion?

1878 Dr. WACHHOLZ. If I had an option, I would prefer not to.

1879 (Laughter.)

1880 Mr. YATES. Suppose you sat where Dr. Brill sits and Dr.  
1881 Bender and the others.

1882 Dr. WACHHOLZ. May I comment on some of the previous  
1883 testimony?

1884 Mr. YATES. Sure you may.

1885 Dr. WACHHOLZ. We received a copy of their testimony  
1886 during the lunch hour, so I have not had an opportunity to  
1887 look at it other than <sup>A</sup>superficial<sub>A</sub> glance through it.

1888 Just from what they said, I don't think we have any  
1889 significant disagreement in terms of the actual risk

1890 involved.

1891 I think part of the question is, will the decision be  
1892 based upon the doses which are estimated and projected or  
1893 upon the potential risk that is involved?

1894 Clearly, there is no standard for risk; <sup>WHAT IS AN ACCEPTABLE</sup> ~~what is~~ <sup>A</sup> risk is  
1895 obviously a very personal thing.

1896 What is acceptable to you may not be acceptable to me, and  
1897 vice versa.

1898 Mr. YATES. I know.

1899 Dr. WACHHOLZ. In terms of standards, there is a Federal  
1900 standard of 500 millirem per year <sup>FOR THE MAXIMUM EXPOSED INDIVIDUAL.</sup> <sup>A</sup> In this very superficial  
1901 look at the table they have here, they have taken the 30-  
1902 year accumulated dose and divided by 30 to get an annual  
1903 average.

1904 Correct me if I am incorrect.

1905 Dr. BENDER. Absolutely right.

1906 Dr. WACHHOLZ. On the other hand, our laboratory <sup>SCIENTISTS</sup> ~~people~~  
1907 have gone through the dose which people are likely to  
1908 receive on a year-by-year basis.

1909 In some years, it is much lower than this; in some years,  
1910 it is considerably higher than this. I think, and I am  
1911 projecting in an area that we really don't have  
1912 responsibility for since we are essentially in the dose  
1913 prediction business--

1914 Mr. YATES. Would you expect the earlier years to have

1915 the highest dose, or later ones?

1916 Dr. WACHHOLZ. <sup>NEITHER.</sup> ~~No~~ In fact, I would suspect the peak  
1917 years to be after the food plants and crops and coconut  
1918 trees begin maturing, which I assume would be six, eight, 10  
1919 years or longer.

1920 Mr. YATES. Why would you expect that if, in fact, the  
1921 earth is clear and there won't be transmission through the  
1922 coconuts and the other foods?

1923 Dr. WACHHOLZ. I don't think anyone has indicated that  
1924 there would be no transmission, because, in fact, the soil  
1925 is not totally free of radionuclides. No, sir. I don't  
1926 think anyone--

1927 Mr. YATES. I had the wrong impression, then.

1928 Dr. BENDER. Perhaps I can clarify that. If we gave you  
1929 that impression, we didn't intend to. Clearly, everyone  
1930 agrees there is radioactivity present. And that when the  
1931 trees are planted, or other things, it will get into them.

1932 Mr. YATES. Yes.

1933 Dr. BENDER. The amount of radionuclides will decrease  
1934 with increasing time simply because, by decay--

1935 Mr. YATES. You two are in disagreement?

1936 Dr. BENDER. No, we are not.

1937 Dr. WACHHOLZ. I don't think so. I think it is a little  
1938 bit of apples and oranges. In terms of radioactive decay of  
1939 the radionuclides, this is a physical constant.

OF THE CESIUM-137 AND STRONTIUM-90 THAT IS

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Clearly, <sup>^</sup> what is there now, <sup>WITH REFERENCE TO</sup> just in terms of some of the <sup>^</sup> radionuclides, half will be <sup>PRESENT</sup> these 30 years from now,

Dr. BENDER. Yes.

Dr. WACHHOLZ. But I think what I said is that because of the maturation of food crops in eight or 10 years, the people will have access to and ingest foods containing higher quantities of radionuclides than would be the case immediately, when all of their food presumably would be imported from outside.

Dr. BENDER. May I call the Chairman's attention to Table 29 of the new Livermore dose reassessment?

This is page 50 and 51. This gives for various scenarios and locations, and for bone marrow and whole body and so forth, the dose estimates for the maximum year, and the year in which the maximum is estimated to occur.

As Dr. Wachholz has said, the reason it is nine or 10 years in the future for Enjebi, which you will note it is not for some of the southern islands, is simply that, if we plant coconut trees now, no coconuts will be mature or eaten for perhaps eight years.

It is those coconuts which will contain the greatest amount of radionuclides. Coconuts maturing thereafter will presumably contain decreasing amounts, according, mainly, to the half-life of the isotope involved.

But this has all been taken into consideration.

1965 Mr. YATES. Under Enjebi, you are up to 500.

1966 Dr. BENDER. In the maximum year, yes, sir, but not

1967 substantially above it. I think that is an important point.

1968 In the minimum years out of these 30, it will be very

1969 substantially less.

1970 Mr. MITCHELL. In any case, part of the assumption is

1971 that the island will receive reasonable support from the

1972 outside world, so the diet, 60 percent imported foods, 40

1973 percent local, can be maintained.

1974 Mr. YATES. What is reasonable support?

1975 Mr. MITCHELL. Well, it means a field trip vessel. I

1976 would say every couple of months. John, what would you say?

1977 How often should a field trip vessel call upon the island

1978 in order for them to maintain the diet that they prefer?

1979 Once a month.

1980 Mr. YATES. Okay, Dr. Wachholz. I stopped you in

1981 midflight. Go ahead.

1982 Dr. WACHHOLZ. I am not sure where the flight was at the

1983 moment.

1984 Mr. YATES. I think you were talking about the peaking.

1985 Dr. WACHHOLZ. I was saying we have a Federal standard

1986 for the dose, but we don't for risk. In terms of what is

1987 applicable and what is not, we would defer to the

1988 Environmental Protection Agency as to how the doses that we

1989 have calculated compare with those standards.

1990 We have put in these books, the ones we presented to the  
1991 Enewetak and Bikini peoples in the last two years, the  
1992 number 500, so that they are aware of the fact that there is  
1993 ~~not~~ not only <sup>A</sup> U.S. <sup>STANDARD,</sup> <sup>A</sup> but an international standard that is  
1994 acceptable.

1995 In terms of any variance from that, ~~in terms of how this~~  
1996 ~~relates to their situation and so on,~~ we would defer to the  
1997 EPA.

1998 Mr. MURTHA. What if you didn't eat the coconuts, what if  
1999 they didn't plant coconuts now? How much less would the  
2000 radiation level be, say they plant them 10 years from now?

2001 Dr. WACHHOLZ. If I can break your question into two  
2002 parts, start with they don't plant coconuts, period.

2003 First of all, I don't know how realistic that is, and I am  
2004 not in a position to make a comment on that.

2005 Secondly, certainly the dose would be less to some extent,  
2006 and I would just be guessing if I mentioned a specific  
2007 number.

2008 Mr. MURTHA. But you said at a peak period the coconuts  
2009 were going to be one of the major reasons that you would  
2010 have this.

2011 Dr. WACHHOLZ. Right.

2012 Mr. MITCHELL. Mr. Murtha--

2013 Mr. YATES. Well, wait a minute. Is there something the  
2014 Doctor said you don't agree with?

2015 Dr. BENDER. It might have been misleading. It seems  
2016 clear, if you don't plant the coconuts, then you will not  
2017 receive any of the dose attributable to eating coconuts in  
2018 the future.

2019 If you plant them later, when they mature, there will be  
2020 less radioactivities.

2021 Mr. YATES. What is Paradise without coconuts? You are  
2022 going to have to plant them, aren't you?

2023 Dr. BENDER. We have suggested in conferences with the  
2024 then Under Secretary of Interior, Mr. Green--

2025 Mr. YATES. We had our experience with Bikini, where they  
2026 were told not to eat the coconuts. And, apparently,  
2027 coconuts are like candy to kids to the people out there.

2028 Coconuts is one of their staples, and they will eat it.

2029 Dr. BENDER. I can't comment too much on Bikini except to  
2030 say that my understanding is that the reason so many  
2031 coconuts were eaten is basically the failure of supply, and  
2032 not just a matter of a few weeks, but a matter of many  
2033 months.

2034 Mr. YATES. I think that was present there, too, yes.

2035 Dr. BENDER. We suggested to Mr. Green at one point, I  
2036 think it was Mr. Green, the possibility of building houses  
2037 at Enjebi, and planting the coconuts, and agreeing that the  
2038 trees would be removed and replanted if it turned out in  
2039 eight years, or whenever the appropriate time is, that they



2040 were, in fact, too radioactive to allow the guides to be  
2041 met.

2042 I think that the people's representatives agreed to that  
2043 at that meeting.

2044 Mr. MURTHA. How much less radiation would there be if  
2045 they didn't eat the coconuts?

2046 Dr. BRILL. It is a factor of two. If you look at the  
2047 table you just were looking at, Table 29, on page 50, and  
2048 you look at the doses for imports available and unavailable  
2049 for the same population group for Enjebi Janet, it is 509  
2050 whole body millirems per year in the year of the highest  
2051 does, if they eat native foods.

2052 It is one-half of that, 277, if imports are available.  
2053 So, without the trees, you cut the dose by a factor of two.

2054 Mr. MITCHELL. I think it is even less than that. I  
2055 think the dose with imported foods still includes  
2056 consumption of some local foods.

2057 Let me just try this. Absent the food web problem, which  
2058 is what we are concerned with here, isn't it correct that  
2059 the dose from terrestrial sources is very small, is really  
2060 not a matter of any concern at all? Isn't that a fact?

2061 Mr. YATES. I didn't hear that answer.

2062 Mr. DEAL. It is very small. Cesium levels--

2063 Mr. YATES. You better say that loudly so the reporter  
2064 can hear you.

2065 Mr. DEAL. I am almost certain, Mr. Chairman, the  
2066 external dose levels would not bring you up to the standard.  
2067 It has to come from the food they eat to bring it up.

2068 Dr. BENDER. In fact, sir, the local natural background  
2069 is low enough so that, if one accepts the external component  
2070 of dose as estimated in this dose reassessment, the sum of  
2071 the two is still less than, for example, living in Denver.

2072 Mr. YATES. Well, we better get the expert from EPA in  
2073 and find out how EPA feels. And we better find out from the  
2074 Secretary's office how the Secretary feels before we do  
2075 anything on this thing.

2076 I can sympathize with the desire of you people to go home.  
2077 But I must say, I dislike, as much as these gentlemen do,  
2078 giving an affirmative answer to what may result.

2079 Is there anything else we ought to put into the record?

2080 Mr. MITCHELL. No, I think we have everything, can submit  
2081 anything. Do we have any more time at all?

2082 Mr. YATES. Did your witnesses want to say something?

2083 Mr. MITCHELL. Are we winding up at this point?

2084 Mr. YATES. I think so.

2085 Dr. BRILL. Could I make a comment about the risk  
2086 estimates?

2087 Mr. YATES. Sure you may, Doctor.

2088 Dr. BRILL. Dr. Bender and I spent approximately two  
2089 years with the National Academy of Science's recent

2090 reviewing of radiation effects, he from the genetic  
2091 standpoint, and I with the Somatics Committee.

2092 Then the two of these committees got together to revise  
2093 and come to a consensus.

2094 Over the years, since the last BEIR Committee report in  
2095 1972, the risk estimates have decreased by a factor of two  
2096 as a result of the recent reappraisal.

2097 I would submit that perhaps the EPA and other groups that  
2098 looked at the radiation doses and potential consequences,  
2099 maybe three, four, five, 10 years ago when they planned the  
2100 resettlement and clean-up, were looking at a factor of two  
2101 higher in risk.

2102 So they might want to reconsider the risks associated with  
2103 the levels they have been able to achieve, which are much  
2104 lower than they had anticipated.

2105 The second thing is that the newest BEIR Committee, in its  
2106 reappraisal, developed two models, one which is the linear  
2107 model, which is the one all our high-risk estimates come  
2108 from, which was put forth as the upper limit on credible  
2109 risks; and a lower-risk model, the linear quadratic, which  
2110 falls in between the high and the low models, and also is  
2111 most consistent with radiobiological evidence.

2112 So I think that was called the best estimates. If you  
2113 look at the situation for the Enjebi population, the risk  
2114 estimates in terms of the numbers of added cancers

2115 throughout the life span of the population, assuming they  
2116 can go back and are exposed to the doses that we both agree  
2117 upon, is between .15 and .99 added cases of cancer in the  
2118 lifetime of that population.

2119 That assumes that these people go back at birth, and  
2120 indeed, many of them are going back at ages considerably  
2121 above birth, although I wouldn't want to guess their age.

2122 So, therefore, the risk they would assume in their  
2123 lifespan is less than this. So you are talking about a  
2124 fraction of a case of cancer in the lifetime of the  
2125 population, against the other kinds of risks one would  
2126 quantify by their not going.

2127 So far in the clean-ups, there have been three deaths.  
2128 One associated with the engineers, an aspect of moving dirt,  
2129 and two associated with water, in the lagoon.

2130 People are exposed to risks. I think the radiation risk  
2131 here, when you are talking about a small fraction of a case,  
2132 maybe is one of the smallest considerations.

2133 Mr. YATES. Will we know until 20 or 25 years go by?

2134 Dr. BRILL. These risk estimates are based upon the  
2135 experience largely of the Japanese survivors we have  
2136 followed now for over 30 years. So they are rather stable  
2137 estimates. These are not those that a single committee has  
2138 come up with.

2139 They happen to agree very well with the United Nations'

2140 Committee meeting that involved representatives from all  
2141 over the world, and summarized their effects in '77.

2142 I think we are in pretty good agreement on the levels of  
2143 risk. We are really talking about a fraction of a case.

2144 Mr. YATES. Why is Mr. deYoung so stubborn? Why are you  
2145 so stubborn, Mr. deYoung?

2146 Mr. DEYOUNG. I wouldn't say, Mr. Chairman, that I am  
2147 stubborn. What I am saying is that when this particular  
2148 aspect was delegated to Interior, we were given certain  
2149 guidelines to follow.

2150 Now, as I said, we are perfectly prepared to have EPA look

2151 Mr. YATES. All right. You are right. We better call  
2152 EPA in here and see what the guidelines are, so that Mr.  
2153 deYoung has a different guideline if, indeed, there will be  
2154 a different one established.

2155 You want to give Dr. Bergman a chance.

2156 Mr. YATES. Okay, Dr. Bergman, I am not going to  
2157 interpret your testimony without your having given it.

2158 Dr. BERGMAN. I think I can say very briefly that I think  
2159 that there is risk in allowing the displaced population to  
2160 be displaced and to keep them displaced, particularly after  
2161 they have considered the facts of their situation and  
2162 decided they want to go back.

2163 There is a lot of experience, a lot of it in this country,  
2164 that there is considerable morbidity and mortality from

2165 people being forced out of their homes and having their  
2166 lives disrupted.

2167         The longer it goes on, the worse it gets. Suicide rates,  
2168 accident rates and violence go very high with such  
2169 populations.

2170         A number of people who have had experiences like that,  
2171 their death rates are very high, where the incidence of  
2172 suicide among young people is many times the national and  
2173 world averages.

2174         Those risks are associated with displacement. I think  
2175 that in the interests of reducing risk of cancer, genetic  
2176 defects to zero, the risks of some of these other effects  
2177 may be very high.

2178         Mr. YATES. Did you quantify them?

2179         Dr. BERGMAN. Very roughly on basis of comparison with  
2180 other populations and other situations. But there are  
2181 places in this country where similar experiences have  
2182 occurred, and the rates of death by suicide and violence are  
2183 greater by a factor of five to 10 in the younger population,  
2184 which would mean that, if anything approaching that were to  
2185 happen here, it might mean in a population of 500, somewhere  
2186 on the order of five to 20 deaths.

2187         Mr. YATES. So we are in trouble, then, aren't we? We  
2188 are in trouble because, unless EPA has a psychiatrist to  
2189 come in and comment on your statement, as well as Federal

2190 standards, we have to consider that factor as well, don't  
2191 we?

2192 Dr. BERGMAN. I think it should be considered.

2193 Mr. MURTHA. Mr. Chairwoman.

2194 Mr. YATES. Mr. Murtha.

2195 Mr. MURTHA. Are we talking about experience? This is  
2196 actually what is happening in this population, or are we  
2197 talking about hypothesis?

2198 Dr. BERGMAN. This is what has happened in other  
2199 populations with similar experiences.

2200 Mr. MURTHA. Why wouldn't it be happening now if they had  
2201 been displaced--

2202 Dr. BERGMAN. I think it is happening.

2203 Mr. MURTHA. It is. But you have just not done a study  
2204 of it, is that accurate?

2205 Dr. BERGMAN. That's right.

2206 Mr. YATES. So we are in further trouble now. We do  
2207 have, staff reminds me, a letter dated August 23rd, 1979,  
2208 addressed to Mr. deYoung's boss. She is your boss, isn't  
2209 she, as I remember?

2210 Mr. DEYOUNG. Yes.

2211 Mr. YATES. That letter says, "Can the 1960 Federal  
2212 guides be exceeded?" And the answer is "Yes."

2213 The guide states the following: "It is recommended that  
2214 the Federal agencies apply these radiation protection guides

2215 with judgment and discretion to assure that reasonable  
2216 probability is achieved in the attainment of the desired  
2217 goal of protecting man from the undesirable effects of  
2218 radiation.

2219 "The guides may be exceeded only after the Federal agency  
2220 having jurisdiction over the matter has carefully considered  
2221 the reasons for doing so in light of the recommendations in  
2222 this paper."

2223 So it is up to Interior. EPA says, sure, we have guides.  
2224 It is up to you to decide whether or not the danger exists.  
2225 So it is now been kicked back to the Secretary, hasn't it?  
2226 So we have to get ahold of Mr. Watt. So that is the state  
2227 of the record.

2228 Did anybody want to say anything else?

2229 All right, we bid you God speed on your voyage home and  
2230 will try to do our best by your clients.

2231 Mr. MITCHELL. Thank you very much.

2232 Mr. YATES. We recognize the fact that they want to go  
2233 home, and I can appreciate that.

2234 It is a very difficult decision. We will do our best.  
2235 Thank you very much.

2236 Mr. MITCHELL. We will be happy to bring these people  
2237 back again with staff, or whatever.

2238 Mr. YATES. Well, we are grateful for your records. We  
2239 are grateful for the testimony they gave us.



2240           We are grateful for the psychiatry and the sociology that  
2241 must be a necessary part of this. We will see if EPA, or  
2242 the Secretary, has any comments upon the psychiatrist's  
2243 testimony.

2244           Mr. MITCHELL. Thank you very, very much for taking so  
2245 much time with us.

2246           (Whereupon, at 2:13 p.m., the subcommittee was adjourned.)

2247

## \* \* \* SPEAKER LISTING \* \* \*

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