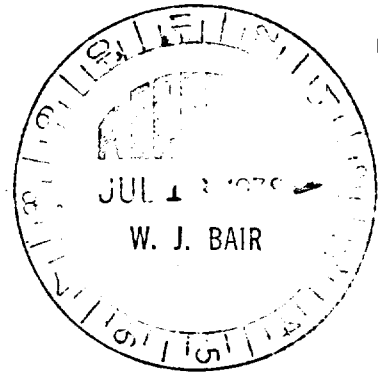


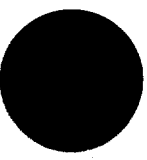


Department of Energy
Washington, D.C. 20545



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Enewetak Advisory Committee Member

During the meeting at LLI on June 7, 1978, Hal Hollister solicited the Committee's opinions regarding the "13 Atoll Survey Plan". Bill Bair has agreed the current version of the survey plan should be sent directly to the membership and asks that comments be provided to him by July 12, 1978. A cover letter from Hal Hollister will follow.

BEST COPY AVAILABLE

Tom McCraw

Tommy F. McCraw

July 7, 1978

Dear Bill:

I've made a few comments in the text of the "Plan". How good did the aerial surveys compare to the soil analyses by the "Imp" and surface collection on Enewetak? Maybe we could make some calibrations! Sorry to relay my thoughts in this manner, but I will be on vacation next week.

Sincerely

Chet Francis

P.S. I'm in process of writing a Trip report to Enewetak regarding the glazing experiment.

Bikini feel they have been short-changed because the U.S. conducted a highly visible exhaustive radiological survey of Enewetak. The Bikini portion of the aerial survey, coupled with the previous and planned ground surveys, will go a long way toward making the Bikini data base comparable to that of Enewetak.

If the aerial survey of the northern Marshalls, including Bikini, is not conducted, the U.S. Government would be terminating the Trust Territory agreement without taking all prudent steps to evaluate the residual radiological contamination on the islands affected by the U.S. nuclear tests.

Sounds like an ultimatum!

INDIVIDUAL MEMBERS OF THE PROGRAM.

Direction and coordination of the terrestrial and marine sample analysis, dose assessment, and preparation of the final report will be provided by the LLL Technical Director ³ who will report to the Division of Operational and Environmental Safety Project Director.

Invited add-ons (other scientific parties) will also be administered by the NV Project Manager. Interaction of these parties with the survey technical program will be coordinated by the LLL Technical Director or his designee.

The overall aerial terrestrial and marine program is expected to include representatives of:

1. Division of Operational and Environmental Safety (OES, DOE/HQ).
2. Nevada Operations Office (NV).
3. EG&G, Las Vegas, Nevada.
4. Lawrence Livermore Laboratory (LLL), Livermore, California.

What kind of working relationship and coordination is going to exist among these ~~3~~ three "Managers"?

TERRESTRIAL AND MARINE PROGRAM

The purpose of this part of the radiological survey program is to document and evaluate in the form of radiological dose assessments the probable consequences of living on the 13 atolls and islands being studied.

The goals are to collect appropriate and sufficient representative samples and to analyze and obtain quality data from which these assessments can be accurately predicted.

TERRESTRIAL PROGRAM

To provide a meaningful dose assessment at the conclusion of the overall survey program, soil and vegetation sampling will be required. These samples will be analyzed for ^{90}Sr , one of the major contributors to the potential dose, ^{137}Cs , and the transuranics (the transuranics primarily include ^{238}Pu , $^{239-240}\text{Pu}$ and ^{241}Am). Soil sampling is required to determine the depth distribution of gamma emitters to help quantify and verify the aerial radiological survey data. It has been found that 90 percent of the total predicted doses to populations at Bikini and Enewetak Atolls are due to ^{90}Sr and ^{137}Cs ingested via the terrestrial foodchains. To properly assess this pathway, soil profile and surface soil samples and vegetation samples must be collected to determine the potential radionuclide uptake in subsistence crops. The transuranics are determined to evaluate the long-term potential effects from the gradual buildup of these isotopes.

The terrestrial program will include collection of the following types of samples:

1. Surface soils.
2. Soil profiles.
3. Subsistence crops and associated soil profiles (i.e. coconut, Pandanus fruit, breadfruit, papaya, squash, etc.). These crops may not be available on many of the atolls. However, wherever they are available, it is of primary importance to sample the edible products and determine the associated soil profiles.

There should be a more comprehensive plan for collection of soil samples. This gives me the impression of at-large sampling. Let's make it so we can set some meaningful CR's.

2. Drinking water Doses - approximately 6 months after completion of the survey.
3. Marine Food Chain Doses - approximately 1.3 years after the end of the survey.
4. Terrestrial Food Chain Doses - approximately 1.8 years after the end of the survey.

Reviewed by R. J. Moore

10/10/10