LAWRENCE L. ERMORE LABORATORY

(9)

March 28, 1973

Cmdr. William F. Wolff
Division of Military Application
USAEC
Washington, D. C. 20545

Dear Fritz:

The following is in response to your request for comments on the first periodic report of the analysis phase of the Eniwetok Radiological Survey:

1. In reporting on the analysis phase of the ERS, it is probably worthwhile noting that the analyses produce data on the concentration of the following nuclides as the principal species observed: ^{60}Co, ^{90}Sr, ^{125}Sb, ^{137}Cs, ^{155}Eu, ^{207}Bi, ^{238}Pu, ^{239}Pu, ^{241}Am.

2. The description of sample preparation is acceptable for soils, but there are some other procedures involved for other types of samples. For example, in working with fish and animals, dissections are performed, organs are pooled before analysis, etc. All of the animal and fish tissue is ashed before chemical analyses, etc. Each sample type receives appropriate treatment.

   You may not wish to include this much detail in this particular report, but if you do I suggest that you get accurate, complete information for each type of sample from Dr. Hoff at LLL.

3. Your bargraph method of presentation is excellent, but I suggest that the analyses be grouped according to the

(94)

following sample types: soils, sediments (from lagoon), cores (from lagoon), fish, animals, birds, vegetation, plankton, seawater, algae, air filters.

4. Comments on the total number of samples to be analyzed:

   a) Certain numbers are firm, e.g. 407 fish samples, 17 plankton samples, 58 seawater samples, 61 air filters, 223 sediment samples, 165 core samples.

   b) Other numbers are not firmly defined; in particular, the vegetation-animal-bird group is estimated at 350 but should not be considered final until such time as the dissection and sample preparation processes are completed.

   c) The biggest remaining uncertainty is in the total number of soils to be analyzed. Excluding sediment and core samples, we took in excess of 3,380 soil samples on the atoll. An examination of priorities and the need to analyze all of these samples is underway and it is anticipated that we will analyze about 2900 soil samples in this phase of the program. I suggest that you use 2900 for your bargraph but indicate that the remaining samples are being held in reserve.

I trust that these comments will be of use to you in preparing future reports.

Incidentally, it would be quite helpful if you included Roger Ray and me in the distribution of the status reports.

Sincerely yours,

W E Nervik

Dr. W. E. Nervik
Radiochemistry Division Leader

WEN:sa

cc: R. Ray (w/Status Report No. 10)

65