

April 16, 1973

Biomedical Division

411582

✓ Captain Gay  
 ✓ ~~Mr. Carlson~~  
 RTAR ✓ CDR Wolff ✓  
 Major Fava  
 Major Cotner  
~~Mr. Little~~  
~~Mr. Gonnella~~ SFC  
 Mr. Stewart

Dr. N. F. Barr  
 Assistant Director for Measurements and Evaluation  
 DBER, Atomic Energy Commission  
 Washington, D.C. 20545

Dear Nat:

This letter provides a summary of the progress of the Eniwetok program and projections for May 22.

The status of the sample analysis program is summarized in the attachment. This program is moving along very well with some lag in the determinations which require wet chemistry, such as <sup>90</sup>Sr and <sup>55</sup>Fe.

Most of the available information pertaining to the soil sampling and exposure rate measurements portion of the survey will be shown on translucent overlays that may be superimposed upon photographs of the individual islands. This includes an overlay of each island depicting the soil sampling locations and separate overlays illustrating all of the available data regarding the concentrations (expressed in pCi/gm) of <sup>137</sup>Cs, <sup>60</sup>Co, <sup>90</sup>Sr and <sup>239</sup>Pu in the soil samples collected to a depth of 15 cm. Activity vs. depth information will also be available in either tabular or graphical form. In addition, all exposure rate measurements made in the field with the Baird-Atomic scintillation detector at the soil sampling locations and the results of the TLD measurements will be shown on similar overlays.

The evaluation aspect is well in hand. Pathway evaluations are made and updated about as rapidly as data come in, so the projections for sample analysis also apply to pathway evaluations.

On May 22, we will be presenting island-by-island evaluations of potential dose through all pathways within the constraints of the available data as projected above. Preliminary evaluations will be made of dosages to be expected with considerations of where the population will likely live, farm, fish, visit, etc., and determination of the sensitivity of expected dosages to these factors.

Sincerely yours,

REPOSITORY DOE History Division

COLLECTION RG 326, Tommy McCraw Job # 1320

BOX No. 5

FOLDER Radiological Survey

*Daniel W. Wilson*

Daniel W. Wilson  
Assistant Director for  
Environmental Research

DWW:pjm

cc: W. Nervik  
 R. Ray, NVOO  
 W. Gay, DMA ←  
 J. Deal, DOS

Projected Status of Eniwetok Analyses as of 5/22/73

<u>10 April 1973</u>	<u>Total number to be analyzed</u>	<u>Initial Preparation</u>	<u>Gamma Counting</u>	<u>Wet Chemistry</u>
R. Hoff, H. Wilson				
Soils	2,800	4/6 - 1,900 5/22 - Complete	4/6 - 990 5/22 - 1,730	4/6 - 625 5/22 - 1,525
Sediments	224	4/6 - Complete	4/6 - Complete	4/6 - 208 5/22 - Complete
Cores	165 samples (36 cores)	4/6 - 80 5/22 - Complete	4/6 - 2 5/22 - Complete	4/6 - none 5/22 - 100
Fish	407	4/6 - Complete (except for dry ashing)	4/6 - 346 5/22 - Complete	4/6 - none 5/22 - 200
Seawater	58	4/6 - 29 5/22 - Complete	4/6 - none 5/22 - 29	4/6 - 29 (Pu) 5/22 - Complete
Plankton	16	4/6 - Complete	4/6 - none 5/22 - Complete	5/22 - ?
Vegetation	210	4/6 - Complete	4/6 - 46 5/22 - Complete	4/6 - none 5/22 - 40
Air filters	61	4/6 - Complete	4/6 - 11 5/22 - Complete	4/6 - 2 5/22 - Complete
Birds, eggs, animals	~ 100	4/6 - in process 5/22 - ?	5/22 - ?	5/22 - ?
LVWS filters	28	4/6 - Complete	4/6 - 4 5/22 - ?	5/22 - ?

Notes re projected status as of 5/22/73

10 April 1973

R. Hoff, H. Wilson

- Soils - The islands are being analyzed in the following order:  
Glenn, Henry, Irwin, David, Alice → Edna, Kate → Wilma,  
Janet, Sam → Clyde, Rex, James, Keith, Leroy, Elmer, Fred,  
Southern Yvonne, Irene, Northern Yvonne.
- Building 412 operation (initial preparation) may not be  
complete by 5/22/73; 2-3 additional weeks may be required  
due to slow handling of hot Yvonne samples.
- Fish - Gamma counting complete on all 407 as of 11 April 1973.  
Rate for wet chemistry uncertain at this time; MCL and LFE  
just starting analyses, no data yet from UW.
- Vegetation - Gamma counting will be easily completed by 5/22/73. How  
many samples will require wet chemistry?
- Air filters - Gamma counting and wet chemical analyses will be complete by  
5/22, but not by 5/1 as requested earlier.

General Comments:

1. We intend to have all samples for wet chemistry delivered to the appropriate lab by 30 June 1973. We expect that it will require 4-6 weeks beyond June 30th to collect data from this effort.
2. We anticipate that essentially all samples will have been gamma counted by June 30th.