

BIKINI ATOLL: CLEANUP AND CURRENT STATUS

K

Note by the Secretary

The General Manager has requested that the attached memorandum of February 24, 1971 from the Director of Operational Safety, with the following enclosures, be circulated for notation by the Commission at an early Information Meeting:

1. January 14, 1971 letter from the High Commissioner, Trust Territories
2. Summary Report of the 1969 and 1970 Bikini Surveys

W. B. McCool

Secretary of the Commission

DISTRIBUTION

NO. OF COPIES

Secretary	7
Chairman Seaborg	4
Commissioner Ramey	2
Commissioner Johnson	2
Commissioner Larson	2
Commissioner	1
General Manager	2
Deputy Gen. Mgr.	1
Asst. Gen. Mgr.	1
Exec. Asst. to GM	1
Spec. Asst. to GM	1
Asst. GM for Admn.	1
Asst. GM for MA	2
Asst. GM for Operations	2
Asst. GM for R&D	1
General Counsel	1
Biology and Medicine	1
Controller	1
Inspection	1
Operational Safety	1
Public Information	1

2-24-71





UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

FEB 24 1971

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Larson
Commissioner

THRU: *for* General Manager *Donald C. Kulf*

CLEANUP OF BIKINI ATOLL AND CURRENT STATUS

Radiological surveys were conducted at Bikini Atoll in 1969 in support of cleanup operations and again in 1970 to add to available information on the radiation status of the Atoll. The enclosed report, NVO-97, "Summary Report of the 1969 and 1970 Bikini Surveys," February 1971, contains a summary of the information collected during the cleanup and survey activities. This summary report is to be followed by detailed reports by the Southwestern Radiological Health Laboratory (SWRHL), Environmental Protection Agency, and by the Nevada Operations Office within a few weeks. These will be in draft form for AEC review.

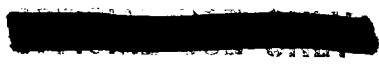
Briefly, the summary report indicates that during cleanup in 1969 all scrap metal or concrete in the Atoll with contact gamma readings greater than 100 micro-Roentgen per hour ($\mu\text{R/hr}$) was treated as radioactive waste and buried in one of three locations at sea. Some scrap with contact gamma readings less than 100 $\mu\text{R/hr}$ was buried on land but no debris at any level was buried on the islands of Bikini, Eneu, or Aerokoj. (Housing is to be constructed only in the Bikini-Eneu complex.) Gamma levels on Bikini, the largest island, ranged from 10 $\mu\text{R/hr}$ along the beaches to 120 $\mu\text{R/hr}$ in some areas inland. Levels on Eneu, the second largest island, ranged up to 40 $\mu\text{R/hr}$. Levels reported in the U.S. have a range from about 10 $\mu\text{R/hr}$ to 40 $\mu\text{R/hr}$.

During the 1970 survey, nine air samplers were operated for two weeks on Bikini and Eneu islands and many soil samples were collected. Of interest was the plutonium content of air and soil. On Bikini, the ^{239}Pu air concentrations ranged from 0.6×10^{-4} to $5.4 \times 10^{-4} \text{pCi/m}^3$. All results for Eneu were $0.4 \times 10^{-4} \text{pCi/m}^3$.

CONFIRMED TO BE UNCLASSIFIED
BY AUTHORITY OF DOE/OC

H.L. Hoppe 10/4/85
REVIEWED BY DATE

By: W. Tench 3/5/87



Commissioners

-2-

For comparison, the average value for ^{239}Pu background in air in the U.S. during 1968 was $0.4 \times 10^{-4} \text{pCi/m}^3$. The maximum permissible concentration for the general public for $^{239,240}\text{Pu}$ in air is $2 \times 10^{-2} \text{pCi/m}^3$. Average levels of $^{239,240}\text{Pu}$ in soil from undisturbed areas along cleared rows on Bikini showing the highest gamma levels ranged from 65 to 87 pCi/g dry. Levels in disturbed soil in the same areas were lower by a factor of two to three. Levels of $^{239,240}\text{Pu}$ in soil on Eneu ranged from 0.71 to 35 pCi/g dry.

The summary report also contains a comparison of results of analysis of fish, lobster, clams, coconut crabs, birds, coconuts, and pandanus collected in 1967 with those collected in 1969 (the 1967 results were used by the Ad Hoc Committee established by AEC to consider whether the Bikini people could return home). The determinations of radionuclide content for the 1969 samples compare favorably with those for the 1967 samples. The Ad Hoc Committee's recommendations for certain simple measures to minimize exposure are supported by these findings.

As to the current status of rehabilitation of Bikini Atoll (requested at Commission Information Meeting 1096, January 21, 1971), the following was obtained through the Pacific Support Office in Honolulu on February 4, 1971:

Trust Territory officials report that 40 houses are currently financed for construction at Bikini Island with completion due in 1972. Components for these houses are being prefabricated at Majuro Atoll but none have yet been shipped to Bikini for assembly.

Planting of coconut trees was reported on schedule and going well. Planting on the second largest island on the Atoll has been completed. Planting on Bikini should be completed later this year. There are 28 male workers on the Atoll but no wives or dependents. There are two women from the Truk Islands.

By letter of January 14, 1971 (copy enclosed) to AEC's Manager, Honolulu, the High Commissioner, Trust Territories, requested permission to plant coconut trees on the Peter-Oboe (Aerokoj) complex along the

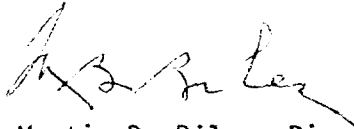
Commissioners

-3-

southern rim of the Atoll. These islands were not included in the group for which continuous occupancy was to be allowed as recommended by the AEC Ad Hoc Committee. It is expected that the detailed reports soon to be issued by SWRHL and NV will provide sufficient basis for a decision on the Trust Territories' request.

Communications with Trust Territories' officials in the Pacific are difficult and with those at Bikini Atoll even more so. However, staff of the Nevada Operations Office are undertaking to get periodic reports from the Trust Territories District Administrator on the progress of the rehabilitation program at Bikini.

Operational Safety staff will be pleased to provide additional information or briefing on the Bikini cleanup, surveys and rehabilitation as desired by the Commission.



Martin B. Biles, Director
Division of Operational Safety

Enclosures:

1. NVO-97 - Summary Report
2. Ltr fm Trust Territories