





~~CONFIDENTIAL~~

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T. L. Shinn, A.D.

Date: 16 June 1949

This theoretical calculation is based upon some practical considerations. Experience has shown that the likelihood of detecting a given dose is affected by the collection method. Charles H. H. H., Health Physicist, USA, was assigned to the site during the period approximately 15 April to 15 May 1949. The removal of the collection site was decided on and he left when it was decided that no further work would be done in contaminated areas until some weather later, when systematic measurements could be undertaken.

During the period 1 May through 15 August 1949, Mr. Wm. H. Day, Health Physicist, (RMA), served as resident officer at Eniwetok. He conducted a scientific investigation of the situation with special emphasis on the radioactive content of dust on the Wet Islands. He was unable to detect any significant amount of radioactivity in dust kicked up by any ordinary activities on the islands. By stirring up dust into the air by artificial means, he was able to detect some radioactivity. He concluded that there was some radioactivity in the dust but that it was not significant. He also pointed out that the dust was not a significant hazard to health. He prepared three technical reports for the information of interested personnel in radiological and epidemiology. His work is covered in the following "Radiological Control Unit" (Confidential): TR-30 (20 May 1949), TR-31 (30 June 1949), TR-32 (17 June 1949), SD-249 (2 July 1949).

11/15/53

decontamination by washing the walls of Engeb, about 1950, and  
 1947, with Mr. [Name], [Title], [Company], [Address], [City],  
 1950, with the decontamination work by [Name], [Title], [Company],  
 on other islands during operations, Mr. [Name] was followed as  
 Safety Officer by Mr. Dick [Name], [Title], [Company], and another [Name]  
 was made by Dr. [Name], [Title], [Company]. The following is  
 excerpted from his report (Confidential) to [Name], [Title], [Company],  
 Engineer, dated 1 March 1950.

The islands were surveyed with Geiger-Muller instruments  
 sensitive only to gammas. The permissible weekly dose at the  
 present time in the laboratory at [Name] is 700 milli-  
 roentgens (MR.) per week. With the present work week at Eniwetok  
 of 54 hours, the maximum dose rate for continuous exposure is  
 about 5.5 MR. per hour.

Engeb - 2<sup>nd</sup> February 1950

The entire graded area within the 100-foot radius from  
 zero was found to have an activity below 5 MR. per hour for  
 the most part. At the outermost edge of this area occasional  
 spots with 1.5 MR. gamma rays were found.

The location of the [Name] [Title] [Company] [Address] [City]  
 [Name] [Title] [Company] [Address] [City]  
 [Name] [Title] [Company] [Address] [City]  
 graded area [Name] [Title] [Company] [Address] [City]

Top soil samples from the vicinity of the [Name] for the  
 new tower were collected and beta activity of this has been  
 measured to evaluate the procedure of [Name] the soil  
 during operations there.

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The measure to shield the ... is placed ... across, the ... activity. ... This excerpt included all of the ... on the island of Eniwetok ... after, another ... following excerpt from their (and ... report to Mr. Curtis, dated 22 March 1950, contains all of the information contained in their report relative to working conditions on the island of Eniwetok.

The islands were surveyed with ... sensitive ... present time ... roentgens (R) per week ... Eniwetok of 17 hours, the maximum dose rate for continuous exposure is about 1/2 R per hour.

Eniwetok

The entire island was ... was found ... detected with ... Chlaer's report of 1 March 1950 had been moved to the lagoon side, well out of the work area. The grading operations on the island had been completed.

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NOTES AND RECOMMENDATIONS

As of this date, 3/21/53, all islands of Eniwetok atoll are considered free of radiation hazard with the exception of Eberiru and Runit. This area will be eliminated, as a radiation hazard, by the grading which should be completed within a few days.

At present, film badges are issued only to U.S. Navy & Marine personnel on Eniwetok atoll and to some workers on Eniwetok Island, as well as the Navy personnel of Berry Island. A total of about 900 film badges are issued each month.

These film badges are designed to detect ordinary radiation, and from the above it is shown that no reliable hazard exists except on Eberiru and Runit. At present, the film badge industry is running at full peak in order to supply the demand for essential work.

Probably between 30,000 and 40,000 additional badges will be required for future tests here. The production of this number of badges presents a serious problem of supply. It is felt that we are not using good judgment in using ordinary film badges where no ionizing radiation hazard exists.

The processing of this large number of film badges for the entire film badge processing department at the Eniwetok atoll is 10 days each month.

Furthermore, the fear of radiation and the associated psychological reaction to the unknown, which is a human trait exist in the presence of such radiation hazards.

It is therefore recommended, subject to the approval of the Scientific Director of J.I.C., that the wearing of film badges be discontinued immediately for all personnel except the workmen on

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to: T. L. Shipman, M. S.

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Unit, and that there be no further operations on this island as completed.

J. P. COONEY, M.S.  
RAD-SAFETY OFFICER, JTF-3

JACK W. AEBY  
RAD-SAFETY OFFICER, ENIWETOK ATCI

A few months later, after all decommissioning operations had been completed another survey was made by Mr. Aebly and Mr. T. J. White, H-Division, LASL. Since this was the final survey, the complete report (SD-2018) is appended. After the departure of Mr. Aebly and Mr. White on 13 May 1950, no Rad-Safe Officer was assigned to the AEC Base at Eniwetok because it was believed to be entirely unnecessary.

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