

TO: W. A. Curtis, AEC Engineering

OFFICIAL USE ONLY

404409

FROM: S. Shlaer, Los Alamos
Scientific Laboratory

RE: GAMMA RAY ACTIVITY ON SHOT ISLANDS

DATE: 1 March 1950

R

	TO	CHK'D.
H		
N		
A		
B		
C		
D		
E		
F		
G		
I		
J		
K		
L		
M		
N		
O		
P		
Q		
R		
S		
T		
U		
V		
W		
X		
Y		
Z		

The islands were surveyed with NL-6 monitoring instruments sensitive only to gammas. The permissible weekly dose at the present time in the laboratory at Los Alamos is 300 milliroentgens (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.

Engebi - 25 February 1950

The entire graded area within the 1,000 foot radius from zero was found to have an activity below 1 MR. per hour for the most part. At the outermost edges of this area occasional spots with 1.5 MR. per hour can be found.

No indication of the position of the old tower base could be detected with the instruments. Metal scrap with activities as high as 3.5 MR. per hour can be found just outside the graded area, both seaward and along the zero line.

Top soil samples from the vicinity of the location for the new tower were collected and beta activity of this has been measured to evaluate the necessity of moistening the soil during operations there.

The measurements showed that when an unshielded G. M. tube is placed about 1" above the soil spread to about 1/4" thickness, the Victoreen model 263 shows about 1 MR. per hour activity. Though this cannot be evaluated in a precise way it would seem that moistening the soil would be desirable.

Amson - 27 February 1950

The area from about 100 feet radius to about 1,000 feet radius from the tower base had activities of less than 1 MR. per hour. From about 100 feet to the edge of the tower base, the activities rose slightly to about 4 to 5 MR. per hour.

OFFICIAL USE ONLY

BEST COPY AVAILABLE

Classification changed to by authority of the U. S. Atomic Energy Commission.

Per Wm Redman 2/27/50
(Person authorizing change in classification) (Date)

By Francis Johnson 11-2-55
(Signature of person making the change, and date)

COPIED/DOE
LANL RG

OFFICIAL USE ONLY

CONFIDENTIAL

	TO	CHK'D.
H		
N		
A		
B		
C		
D		
E		
F		
G		
I		
J		
K		
L		
M		
N		
O		
P		
Q		
R		
S		
T		
U		
V		
W		
X		
Y		
Z		

TO: _____ JOB: _____

FROM: _____ RE: _____

DATE: 1 March 1950

At the center of the base, activities as high as 10 to 15 MR. per hour, giving permissible exposure times of 20 to 30 hours per week. However, steel plates on the platform were found with activities between 35 to 90 MR. per hour in their immediate vicinity - giving exposure times of 6 to 10 hours per week.

Exhibit - 28 February 1950

The situation here was much the same as at Acman, namely: The area between 100 feet radius and 1,000 feet radius had a general activity of less than 1 MR. per hour except for a sector on the seaward side of the zero line in a southeasterly direction, where the activity was as high as 1.5 MR. per hour.

The activity at the edges of the tower platform ran between 2 and 7 MR. per hour with the very center at 10 to 12 MR. per hour. This corresponds to a minimum in the permissible exposure time of about 25 hours per week there.

SS:M
cc: Jack Asby ✓
J-Division
Tom White

SIMON SHLAER

LANL RC
COPIED/DDE

PACIFIC PROVING GROUND

GENERAL

Class of Doc.	Date	From	To	Ref. No.	Cy. No.	Description
Conf. Rest	3/23/49	T. L. Shipman	Al Graves		1 p	HEALTH CONTROL AT ENIWETOK
CONF Uncl	9/12/55	W. R. Kennedy	AEC, LAFO ATTN: MOWBRAY	H-6-90	4/4A 1 pg.	FALLOUT ON CERTAIN ENIWETOK ATOLL ISLANDS DURING OPERATIONS SANDSTONE, GREENHOUSE AND IVY 55-19