SUMMARY OF OPERATIONS ON CONTRACT NO. W-28-094-

FOR THE MONTH OF JULY 1948.

403913

Project I.\* Basic studies on the effect of X-rays upon fish in various stages of development.

Sections I\* and II\*

The data describing the effect of exposure to 100 r units of X-rays on the F, generation of chinook salmon fingerlings is being summarized. These data bring up to date the available information on the effect of exposure of adult salmon to a single dose exposure of 100 r, and the resultant changes caused through the fresh water phase of the F2 generation. Comparisons are made with "control" fish of similar history except for the X-ray exposure.

Project VI. Exposure of marine invertebrates to X-rays.

Marine snails of the genus Thais were X-rayed on July 6, with doses from 5900 r to 20,000 r. Only one specimen received 20,000 r; 4 received 10,000 r, 7 received 5900 r, and 17 were not irradiated. A few died within the first two weeks, presumably because of too warm water. The 20,000 r-specimen was one of these. Refrigeration was applied and the mortality dropped. By July 31, about half had died, but no significan

> REVIEWER (ADD): NAME: PARISE

irradiation was observed.

Project X. Bikini Resurvey of 1948.

SINGLE REVIEW AUTHORIZED BY: 1. CLASSIFICATIO

The Bikini Radiobidogical Resurvey Party of 1948 arrived at Bikini on July 3, 1948. Quarters and laboratory space were established on the U. S. Navy ship LCI (L) 1054. The U.S. Navy ship AG 140 provided support and small boat transportation.

\*Project and section numbers refer to the Project Chronology Chart and Summary UWFL-9, revised March 11, 1948.

DOS ARCHIVES

Project X. continued

The weather during the month at Bikini was very favorable for our operations. Collections were made in the field and processed aboard ship on a regular schedule. The program as outlined for Bikini last spring (UWFI-10) was completed, with all the stations occupied and sufficient data gathered that it will be possible for us to evaluate the changes that have taken place.

Collections were made in each collecting area with samples of the aquatic fauna and flora gathered for preservation, by drying, ashing, or chemical means. A total of 1878 ashed samples were prepared at Rikini. Material gathered for further study in our laboratories will greatly increase the number of samples.

The period from July 21 to July 30 was spent at Eniwetok, where we collected extensively in six areas. Three of the collecting areas were in the relatively uncontaminated areas; with three stations near major sources of contaminating material. Spot collections and plankton sampling helped to complete the coverage.

A total of 798 ashed samples were prepared while at Eniwetok. Additional material was frozen, dried, or chemically preserved for continuing the study out of the laboratories on the mainland.

Lauren R. Donaldson, Director Contract No. W-28-094-eng-33 SUMMARY OF OPERATIONS ON CONTRACT NO. W-28-094-FOR THE MONTH OF JULY 1948. . DE CNGINEER Class and Floor

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DOS ARCHIVES

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7. OTHER (SPECIFY):

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Project X. continued

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Lauren R. Donaldson, Director Contract No. W-28-094-eng-33

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Project VI. Exposure of marine invertebrates to X-rays.

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Project X. Bikini Resurvey of 1948. NAME Pales

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AREVIEWER (ADD):

NAME: Halangutu

Date: H-14-94

1. CLASSIFICATION [CIRCLE NUMBER(S)]
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