DATE: November 30, 1949

## fice Memorandum • United States Government

TO

Shelby Thompson

FROM

Robert Tumbleso

SUBJECT: REVIEW OF BIKING RESURVEY ARTICLE SUBMITTED BY FISHERIES LABORATORY, UNIVERSITY OF WASHINGTON

Yellow journalism by any other name still stinks.

This so-called scientific report is vague, shifty, dishonest, suggestive and otherwise unsuitable for publication.

It is filled with careful and pious disclaimers that leave an impression of scientific integrity, modesty and objectivity on the part of the scientific workers engaged in this project. The "facts" reported do not bear this out. The honesty and intelligence of other scientists who might have contrary opinions are impugned.

Careful reading of the paper indicates that the radioactivity now found at Bikini is low level, at the threshold of measurement techniques, and harmless. The general impression created by careless reading is that Bikini is rampant with death-dealing and crippling radiation.

These studies are of value scientifically because they show how all elements, whether or not they are radioactive, are constantly being shifted, redistributed and circulated through the ecological cycle. Instead of being content with reporting this restrained and praiseworthy conclusion to a scientific researh study, the author has stressed the radiation hazard out of all proportion. The resulting story is a scare piece, which has lost whatever scientific value it might have had and which can cause real damage from a public relations point-of-view.

The following quotes picked almost at random reveal the inconsistencies and double-talk that runs through the article:

On page 3, this is called "a reassuring story." As it is presented it is anything but reassuring.

Page 4: The statement is made that "Bikini's radioactivity, absorbed even in trace quantities by fish or other living things, may become concentrated in tissues until it weakens or kills its hosts." Nowhere is it stated that this has actually been found to occur. If there is no such evidence, the statement is far too strong and should be deleted.

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SUBJECT: Page 2

Page 8: This puts the scientists of the Division of Biology and Medicine headed by Dr. Shields Warren in direct opposition to "top scientists" in the 1947 expedition whose "final report was the product of a collective judgment of documented correctness."

Page 8: Suggests that physicists or chemists are casual about radiation.

Page 9: Donaldson, from examination of "hundreds of samples", noted "the general distribution of the small amounts of radioactivity." We state publicly that dilution is one of the two basic principles of disposition of radioactive wastes.

Page 9: "They observed that measurable quantities of fission products were present in every part of the lagoon." The word "measurable" here has a sinister sound, but what does it actually mean? Is the radiation harmful? Is it twice or two million times background?

Page 11: "The hydroid contained radioactivity about 1,000 times that found in water." A thousand times nothing is still nothing. How much radiation is in water? Is the hydroid damaged by the amount of radiation found?

Page 13: Has the "theoretical fish" actually been found "to run into trouble."

Page 14: Suggests that these theoretical ideas have been tested, but have they? The actual results are reported so vaguely that the reader cannot be sure. Later on points out that Bikini's radiation potential is "declining;" that radiation is taken in "in infinitesimally small amounts." Still later says that biologists "do not know...what the effects of these absorptions of radioactivity have been or will be. They do not have absolute proof..." This seems to me to indicate that the ideas are still in the theoretical stage, and that they have not bean tested at all. Then while admitting that there is no evidence in so far as Bikini is concerned, the author tosses in conclusions based on high level radiation experiments. Of course, radiation kills and is dangerous. But is the radiation at Bikini presently a hazard. This is repeatedly implied but never definitely stated nor the facts presented.

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