

Office Memorandum • UNITED STATES GOVERNMENT

TO : Paul B. Pearson, Chief, Biology Branch
 Division of Biology and Medicine, Washington

FROM : Goff H. Giboney, Chief, Radiation Control,
 SROO, Augusta

DATE: September 23, 1954

SUBJECT: SUGGESTIVE SURVEY OF RADIOACTIVITY IN CORALS

SYMBOL: TC:KH:hj

The analysis of radioactivity of coral samples submitted to this office by Dr. H. T. Odum and Dr. E. P. Odum on their return from a research study in the vicinity of the Eniwetok proving ground has focused attention on a factor not apparent in literature we have seen relating to the test operations,

These samples taken between June and late August at a distance of some two hundred miles from the test site have a wide range of radioactivity which appears to be partially a function of their physical characteristics (surface to volume ratio). The activity has not been analyzed qualitatively, but gross measurements as high as 2×10^{-2} $\mu\text{c/g}$ were observed. This magnitude of activity suggests that measurable activity may be found in similar corals throughout the Pacific.

It is possible that such information is well known to the Division of Biology and Medicine and its general research significance may have been thoroughly considered or such research may be in process. In event this has not been done or is not in process, it would seem desirable to obtain samples of coral from points widely separated from the test site in order to develop information concerning the extent and mechanism of translocation of radioactive materials and the mechanism by which coral specimens either absorb or assimilate them.

Satisfactory collection might be achieved through enlisting the aid of some nationally controlled group such as weather observation stations throughout the world to collect and mail samples to a central analytical group where uniform assay may be obtained.

We feel that such data would prove extremely valuable in anticipating the results of ocean disposal; consequently both we and the prime contractor at Savannah River would be glad to assist in a limited way with any phase of such a study.

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