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in the City of New York

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DEPARTMENT OF RADIOLOGY
RADIOLOGICAL RESEARCH LABORATORY
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404984

July 23, 1954

Dr. Charles L. Dunham
Division of Biology and Medicine
U.S. Atomic Energy Commission
Washington 25, D.C.

Dear Charles:

*copy statement
attached*

Thank you for sending me a copy of your letter to Dr. Lan-Chang Chiang and the statement you sent him. I had not really gone over the statement until yesterday when I was asked about the same problem by someone in our X-Ray Department. Now I am quite confused about some of the things. I have asked Dr. Rossi to go over it and he is just as confused as I am.

In the first place, on page 2, number (1): "The radioactivity had been deposited on the outside of the fish after the fish was taken from the water." It was my understanding that this problem had to do with fish that had swum in contaminated water. ~~They~~ had therefore taken the material into their bodies. This is further implied by the second paragraph on page 1.

(2), I do not understand this one at all, because if the radioactivity was deposited on the outside of the fish, it should have been taken off in preparing the fish for food, and if it had been taken into the fish during swimming, it would be throughout the body and not just in the outer two inches.

The real problem, however, comes on page 3 where it is calculated that C_a equals 1×10^{-5} microcuries per gram and then it is stated that on the basis of assumption (2) above this would correspond to 5 microcuries per centimeter of surface. It looks to us as though it should be 5×10^{-3} microcuries per square centimeter of surface.

On the other hand, the computed level, .1 milliroentgen per hour at 5 centimeters from the surface is consistent with 5 microcuries per square centimeter. Somebody has lost a factor of a thousand somewhere along the way. I hope it is Rossi and I, and that you can tell us where we lost it. We will certainly appreciate being set straight on ~~this matter.~~

With kindest personal regards, I am,

Yours sincerely,

Edith H. Quimby

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EHQ:bb

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