Radioactive Tuna

410452

March 1, 1955

MEMORANDUM OF INTERVIEW

Between: Mr. S. W. F. Hansen, Representative of the British Ministry of Food, attached to British Embassy, Washington, D. C.

John L. Harvey, Deputy Commissioner of Food and Drugs
James R. Cribbett, Division of Field Operations

Mr. Hansen called to obtain information on our experience with tuna from Japan. The inquiry was at the request of his Government. Since the request was classified SECRET by the British Government, the precise nature of it will not be discussed in this memorandum. Prior to Mr. Hansen's visit, we had decided that we would discuss only public or unclassified information. However, since public information on this problem is extremely meager, it was evident that Mr. Hansen could not obtain a true picture of the situation unless we discussed unpublished, but unclassified, information in our possession.

Mr. Hansen made it clear that the British Government desires to avoid making any official pronouncement which is at variance with pronouncements or policy of the Government of the United States. He also mentioned that the only tuna imported from Japan into the British Isles is canned.

We furnished Mr. Hansen the following information:

1. We described how we monitored each frozen tuna imported from Japan with portable geiger counters from the middle of March, 1954, until several months later. We also checked canned tuna during that period. The Japanese had also set up a monitoring system whereby any tuna showing an activity greater than background was destroyed.

2. After several months of essentially negative findings, we reduced our checking to a portion of the cargo of each ship from Japan. We subsequently reduced these checks to a portion of the cargo from every 2nd, 3rd, or 4th shipment, and ended our monitoring during the month of September.

3. The Japanese eventually established a tolerance of 100 counts per minute, including background, for the tuna. A few months ago the Japanese raised this tolerance to 500 counts per minute. Our records indicate that when operating under these figures the percentage of fish rejected because of radioactivity was a very small part of the catch. (Although we did not so state to Mr. Hansen,

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we are completely satisfied that a tolerance originally designed for use on fish contaminated with radioactive ash can be logically applied to fish whose radioactivity arises from the ingestion of radioactive materials.)

4. During our entire monitoring procedure we encountered only 3 tuna showing evidence of radioactivity, out of many thousands which we examined. One of these fish was examined by the New York operations office of the AEC, on May 23, 1954. We showed Mr. Hansen the results of that examination, which disclosed the greatest activity in the bone and kidney, intermediate activity in the skin, and rather low activity in the edible portion. We showed Mr. Hansen data indicating that the activity in the flesh was approximately double that of the natural radioactivity of canned tuna. This natural activity is due to naturally-occurring radioactive potassium.

5. We also discussed briefly the effect of canning upon the radioactivity of a tuna showing some man-made radioactivity, as disclosed by a simulated canning procedure conducted by our Divisions of Pharmacology and Food. This showed that there was some loss of radioactivity of the edible portions during the canning process. We stated that we had not announced an official tolerance for radioactivity in tuna. We pointed out, however, that AEC had informally made some suggestions to the Japanese which resulted in their adopting the 100 cpm and later the 500 cpm values.

6. We said that our information showed that some tuna showing evidence of radioactivity were arriving in Japan as recently as last October. We have no information as to findings since that date.

7. Our greatest concern has been with long-lived isotopes such as Sr^{89} and Sr^{90} which are metabolized in a fashion similar to calcium and thus can be deposited in the bone. During the first few weeks after an atomic explosion, we are also concerned with radioactive cesium, which is likely to appear throughout the tissues.

8. We pointed out that whether the radioactivity of canned tuna constitutes danger to public health depends upon several factors, including the activity of the tuna, the amount likely to be consumed by any member of the population, and such things as the age and health of the individual. While we would not be concerned over the effect on public health of an occasional tuna showing some man-made radioactivity, we would become concerned if all tuna showed an increase in radioactivity as measured by field instruments.

9. Dissipation of radioactive fall-out in ocean waters is not a gradual spreading out of the activity from the region of highest concentration to uncontaminated regions, but that in all probability the process results in scattered pockets and streams of higher radioactive materials in the Pacific. We can speculate that tuna which now show radioactivity from ingested materials have been living in, or have passed through, such pockets; or have been feeding on plant or animal life which has been exposed in these areas.

10. Mr. Hansen wanted copies of any official pronouncement on the matter by the Food and Drug Administration. We furnished a copy of Commissioner Crawford's statement of March 26, 1954 to our Ambassador to Japan. We stated that since this statement was issued very early in the course of our monitoring operations, we felt that it did not have much value for the situation now confronting the British Government.

Mr. Hansen said that the unpublished information we furnished would be used only as background information by his government, and would not be publicized.

John L. Harvey

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