

OFFICIAL USE ONLY

MINUTES

59th MEETING OF

A. E. C. ADVISORY COMMITTEE ON BIOLOGY AND MEDICINE

PLACE: Washington, D. C.

DATE : November 26, 1956

- 1 -

US DOE ARCHIVES	
326 US ATOMIC ENERGY COMMISSION	
RG	
Collection	<i>Division of biology & medicine</i>
Box	<i>1</i>
Folder	<i>11</i>

OFFICIAL USE ONLY

1060025

This special meeting was called for the purpose of discussing the Strontium 90 fallout problem. The meeting convened at 9:30 a.m. with Dr. G. Failla, Chairman, presiding. The following persons were present:

A D V I S O R Y C O M M I T T E E

Dr. Shields Warren	Dr. G. Failla, Chairman	Dr. Charles H. Burnett
Dr. John C. Bugher		Dr. H. Bentley Glass
	Mr. Hanson Blatz, Scientific Secretary	

A D V I S O R Y C O M M I T T E E

Commissioner Lewis L. Strauss
Commissioner Willard F. Libby
Commissioner Thomas E. Murray
Dr. G. M. Kavanagh (representing Commissioner Vance)
Mr. John W. Crawford
Dr. Calvin J. Potts
Mr. W. B. Mc Cool
Dr. Charles L. Dunham
Dr. W. D. Claus
Dr. Forrest Western
Dr. Gordon Dunning
Dr. Sterling Emerson
Mr. Merrill Eisenbud
Mrs. Frances R. Montgomery, Secretary

A E C C O N T R A C T O R S

Dr. Austin Brues (ANL)
Mr. Leo Marinelli (ANL)
Dr. K. Z. Morgan (ORNL)
Dr. Wright Langham (LASL)
Dr. Keith Cannan (ABCC)

In view of the fact that all members of the Committee have received a complete stenographic transcript, these minutes present only the bare essentials of the meeting.

ESTIMATES
OF Sr-90
BODY BURDEN

In MR. MERRIL EISENBUD'S report presented before the Washington Academy of Sciences November 15, 1956, he estimated that the highest foreseeable Sr-90 skeletal burden to a relatively large population (North Dakota) from birth to an age of seventy, from fallout as a result of nuclear weapons testing to date, would be about 25 micro-microcuries per gram of calcium.

In COMMISSIONER WILLARD F. LIBBY'S report presented to the American Association for the Advancement of Science, October 12, 1956, he estimates that the average Strontium 90 body burden for persons living in the United States from weapons testing to date will be about 4 micro-microcuries per gram of calcium or possibly as high as 10.

MR. LEO MARINELLI of the Argonne National Laboratory has made certain inferences from measurements of radium uptake in the Chicago area which indicate that the average body burden from birth to age sixty from weapons tested to date would be about 2.5 micro-microcuries per gram of calcium.

After a considerable discussion of the differences in the assumptions upon which these estimates were based, the Committee and the invited experts present at the meeting accepted the possible range of from 2.5 to 25 micro-microcuries of Sr-90 per gram of calcium as the maximum deposition for a lifetime for residents of the United States. This range is considered to be representative of the best currently available data.

MAXIMUM
PERMISSIBLE
Sr-90
BODY BURDEN

Upon acceptance of this tentative estimated range of body burden, the Committee then considered the currently accepted limit of 1 microcurie of Strontium 90 or 1000 micro-microcuries per gram of calcium for the maximum permissible body burden for individuals occupationally exposed to Sr-90, to determine upon what bases it was estimated and what factors of safety have been included. DR. AUSTIN BRUES of the Argonne National Laboratory and DR. KARL Z. MORGAN of the Oak Ridge National Laboratory (who is also Chairman of the NCRP Subcommittee on Internal Dose) discussed the experience and calculations upon which this value has been based. MR. MARINELLI and DR. WRIGHT LANGHAM (LASL) described recent measurements which afford additional data as to the uptake and deposition of certain radioactive materials in the body. It was generally conceded that considerable additional study is required to evaluate the current figure for Sr-90 and that an organized plan of attack should be formulated.

ACBM
STATEMENT

Upon DR. FAILLA'S questioning, COMMISSIONER STRAUSS indicated that there was no great urgency for a statement from the Committee about the fallout problem, but that there is a standing request to examine the problem.

REPORT ON THE ATOMIC BOMB CASUALTY COMMISSION

ABCC
STATUS
REPORT

Since DR. KEITH CANNAN had recently returned from Japan, he was asked to report on the current status of the ABCC. He reported on his five-weeks visit to Japan particularly stressing the current needs and recent accomplishments of the ABCC. Since Dr. Cannan's complete report is in the transcript and is of a somewhat complex nature, it will not be abstracted here except to say that the report was definitely on an optimistic note. He reported more successful recruitment of scientific personnel in the last thirteen months and an improvement in Japanese relationships.

The meeting was concluded with the making of final arrangements to hold the next ACBM meeting at Berkeley, Livermore and San Francisco, California January 17 through 19 (three days) with a possible evening meeting on January 16.

The meeting was adjourned at 4:35 p.m..

Respectfully submitted,



Hanson Blatz
Scientific Secretary ACBM