

~~CONFIDENTIAL~~

ATOMIC ENERGY COMMISSION

MEETING NO, 862

10:30 a.m., Wednesday, May 13, 1953

Present

Gordon Dean
Henry D. Smyth
Eugene M. Zuckert

M. W. Boyer
Walter J. Williams
William Mitchell

Roy B. Snapp
John H. Stumpf

Also Present

Comdr. James M. Dunford
Morse Salisbury
George F. Trowbridge
David Z. Beckler
Robert F. Fetersen
James K. Fickard
T. H. Johnson
Rafford L. Faulkner
McKay Donkin
John C. Bugher
Oscar S. Smith
Capt. John T. Hayward
Philip J. Mullenbach

DELETED

CLASSIFICATION CANCELLED
~~OR CHANGED TO~~

BY AUTHORITY OF H. S. Gandy
BY R. Andrus DATE 4/14/79

2. Tripartite Conference on Radiation Hazards

Dr. Bugher reported on matters discussed at the conference on radiation hazards with representatives of the United Kingdom and Canada which had been held at Harriman, N. Y., on March 30 and 31 and April 1. The subject of permissible levels of exposure to radiation had been considered at length and the U. K. and Canadian representatives had been willing to endorse the standards in effect at the Nevada test site. For decontamination and other operations, the AEC has considered that

exposure to 3.9 r. over a period of thirteen weeks is acceptable. If necessary, exposure to 3.9 r. in one week has been permitted providing that no further exposure occurred. At the conference the U. K. and Canadian conferees had suggested a maximum of .9 r. per week and had indicated that although they did not consider that exposure at the present levels would endanger the health of the limited number of workers at the test site, they did believe that general application of the standards in effect there would be inadvisable.

Dr. Eugher said that to accept the level of .9 r. per week would make it impossible to conduct operations at the test site without major changes in present procedures. In answer to Mr. Smyth's question, Dr. Eugher said there is increasing evidence that the 3.9 r. limit is more realistic than it had once been thought.

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4. Fall-out from April 25 Test Detonation (see AEC 487/52)

Dr. Eugher described the fall-out effects of the April 25 test detonation, which had considerably exceeded the estimated yield. With reference to a map, he indicated the areas where the fall-out had been heaviest. Potential integrated doses in some areas had been as high as 10 r.; fortunately, only thinly populated areas had been affected and the exposures incurred were not considered to be dangerous.

He then described what was known or estimated concerning the movement of the upper cloud and said that a sharp rain-out had occurred in the vicinity of Troy, N. Y., on April 26. The contamination resulting from this precipitation represented an estimated maximum potential integrated dose of 2 r. Although this was relatively large, considering the distance the cloud had travelled, it was well below the maximum

permissible level. In some areas contamination from the rain-out was estimated to have reached 100-200 curies per square mile.

At this point Captain Hayward entered the meeting.

The Commissioners discussed at length with Dr. Bugher the factors which had been responsible for these phenomena and the means available for detecting fall-out. Mr. Smyth observed that the rain-out in the vicinity of Troy had affected a relatively small area and suggested that the location of facilities for detecting fall-out be checked to insure, as far as possible, that no such contamination would be undetected.

The Commissioners then inquired concerning the underestimate of the yield of the device tested. Captain Hayward said that a full explanation of this matter was not yet available and that a paper on the subject would be prepared for the information of the Commission as soon as the facts were known. He pointed out that the RACER, the device tested, had been an experimental one and said that the reliability of estimates would presumably be much greater for the additional shot which had been proposed by the Division of Military Application and which the Commission would shortly consider. (See AEC 487/55, subsequently circulated.) The Commissioners discussed with Dr. Bugher ways in which fall-out might be minimized in future tests and discussed the Commission's policy concerning the testing of devices at the Nevada Test Site or at the Pacific Proving Grounds. The Chairman observed that apparently it had simply been understood that relatively large yield devices would be detonated outside the Continental U. S. However, no firm criteria for deciding such issues had been established.

Dr. Bugher said that it might be advisable to prepare a press release concerning fall-out from the April 25 shot and that he would discuss this matter with the Divisions of Military Application and Information Services. The Chairman said that if a press release were to be made, it would be desirable to emphasize the significance of the fall-out to individuals in the affected areas.

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Roy B. Snapp
Secretary

Approved by the Commission: June 25, 1953