

REPOSITORY National Archives & Rds Admin
RG 326 Atomic Energy Commission
COLLECTION Secretariat Files

726669

50

BOX No. 43

FOLDER 385.6 Radiological Warfare, Section 1

~~SECRET~~

THIS DOCUMENT CONSISTS OF 4 PAGES

NO 1 OF 12 SERIES A

Office Memorandum • UNITED STATES GOVERNMENT

TO : Brig. General James McCormack, Jr.

DATE: April 16, 1947

FROM : Lt. Col. W. S. Hutchinson, Jr.

SUBJECT: PROPOSAL FOR AN INITIAL EVALUATION OF RADIOLOGICAL WARFARE AS A BASIS FOR A DECISION IN ESTABLISHING A LONG-RANGE DEFENSE PROGRAM

Symbol: AECK-8

1. Section 3(a)(b) of the Atomic Energy Act directs, among other things, that the Commission insure the continued conduct of research and development in the field of utilization of radioactive materials for military purposes.

2. The Armed Forces Special Weapons Project, established by the War and Navy Departments, is charged in its charter with responsibility for all military service functions of the Manhattan Project as are retained under the control of the Armed Forces, including training of special personnel required, military participation in the development of atomic weapons of all types (in coordination with the Commission), ... and developing and effecting joint radiological safety measures in coordination with established agencies.

3. Other agencies of the War and Navy Departments, and the Joint Research and Development Board, have certain functions in connection with chemical and biological warfare, which presumably would be extended to include radiological warfare. However, the responsibilities of these agencies do not exceed the sum of those of the Atomic Energy Commission and the Armed Forces Special Weapons Project. These two can be considered to be the responsible agencies of the Government for delineating the possibilities and necessary defensive measures of radiological warfare. As a matter of information, the following agencies, in addition to the Commission and the SWP are involved in some phase or another of this problem: Research and Development Division, War Department General Staff, the Office of Naval Research, the Office of Director of Atomic Defense, Navy Department, the Army Air Forces, all the Technical Services and Bureaus of the Army and Navy (to greater or less extent) and the Military Liaison Committee.

4. There is a history of limited exploration of the problem by the Manhattan Project. However, wartime investigations were aimed to develop immediate temporary expedients to meet the threat of possible use by the enemy. None of these investigations were sufficiently comprehensive for long term purposes. In fact, a "calculated risk" was taken by sidetracking development of radiological warfare in favor of an all-out effort to produce a bomb.

DEPARTMENT OF ENERGY	
SINGLE REVIEW AUTHORIZED BY:	
REVIEWER (ADD):	<u>Dickinson</u>
DATE:	<u>9/18/45</u>
1. CLASSIFICATION AUTHORITY	
2. CLASSIFICATION	
3. COORDINATE WITH	
4. CLASSIFICATION CONTROLLED	
5. UNCLASSIFIED INFO DERIVED FROM	
6. UNCLASSIFIED INFO DERIVED FROM	
7. UNCLASSIFIED INFO DERIVED FROM	

72 PAGES

W. S. Hutchinson
3-2-45
RC/pttc

4-16-47

~~SECRET~~

1183909

6-3-48

~~SECRET~~*Office Memorandum* • UNITED STATES GOVERNMENT

- 2 -

TO : Brig. General James McCormack, Jr. DATE: April 16, 1947

FROM : Lt. Col. W. S. Hutchinson, Jr.

SUBJECT: PROPOSAL FOR AN INITIAL EVALUATION OF RADIOLOGICAL WARFARE AS A
BASIS FOR A DECISION IN ESTABLISHING A LONG-RANGE DEFENSE PROGRAM

Symbol: AECK-8

5. The discharge of the responsibilities of the Atomic Energy Commission requires a sound definition of the extent of Commission responsibility and the extent of the responsibility of the Armed Services and of other Agencies. To attain this necessary definition, the following initial evaluation program is proposed.

a. Formation of a committee of AEC personnel to determine, so far as possible with existing knowledge, what must be included in any long-term program to prepare the Nation for radiological warfare. This committee would prepare a report for the Commission outlining the constituents of such a program and recommending specific assignment of each constituent within the broad definitions of responsibilities as between the Commission and the Armed Services or other Agencies.

b. A consideration of this report and its recommendations by the Commission.

c. Decision by the Commission as to continuing action.

6. Among the directions to this Committee would be to coordinate with the Military Liaison Committee and the Armed Forces, probably principally the Armed Forces Special Weapons Project.

7. The following Committee is suggested to make the necessary initial study:

Lt. Col. William S. Hutchinson, Jr., Chairman & Secretary, Chief, Declassification and Publication Branch, AEC, now on temporary duty for purpose of this study in the Division of Military Application, chemical engineer, Chemical Corps, Regular Army, has experience in declassification, the chemical industry, and in military operations.

~~SECRET~~

1183910

~~SECRET~~

Office Memorandum • UNITED STATES GOVERNMENT

- 3 -

TO : Brig. General James McCormack, Jr.

DATE: April 16, 1947

FROM : Lt. Col. W. S. Hutchinson, Jr.

SUBJECT: PROPOSAL FOR AN INITIAL EVALUATION OF RADIOLOGICAL WARFARE AS A BASIS FOR A DECISION IN ESTABLISHING A LONG-RANGE DEFENSE PROGRAM

Prof. John Van Neuman, Institute for Advanced Study, Princeton, N. J., eminent mathematician, familiar with developments at Y, has studied radiological warfare and has consulted with the Military Liaison Committee on the subject.

Dr. Joseph G. Hamilton, Radiation Laboratory, University of California, Berkeley, California, authority on biological and medical applications of nuclear physics, has studied and reported on radiological warfare.

Dr. Waldo E. Cohn, Clinton Laboratories, Oak Ridge, Tennessee, radiochemist, long active on the Project, now in charge of production of radioisotopes at Clinton.

8. The Committee should be authorized to invite information from sources outside the Atomic Energy Project, as needed. The following possible needs are now foreseen:

a. Intelligence. The Committee would probably need information from the Central Intelligence Group regarding the capabilities of potential enemies to attack the United States with radiological weapons.

b. Capabilities of the Armed Forces for development within their own organizations. The Committee would probably need information from the Special Weapons Project and other agencies of the Army, Navy, and Air Forces regarding the extent to which the Armed Forces are equipped to prepare the nation for radiological warfare.

c. Technical methods of delivering radiological agents to possible targets. The Committee might wish to ask the Chemical Corps for information regarding methods developed for chemical and bacteriological warfare.

d. Civilian defense. The Committee might wish to consult with representatives of the U. S. Public Health Service for advice on this aspect of the problem.

~~SECRET~~

1183911

~~SECRET~~*Office Memorandum* • UNITED STATES GOVERNMENT

- 4 -

TO : Brig. General James McCormack, Jr. DATE: April 16, 1947

FROM : Lt. Col. W. S. Hutchinson, Jr.

SUBJECT: PROPOSAL FOR AN INITIAL EVALUATION OF RADIOLOGICAL WARFARE AS A
BASIS FOR A DECISION IN ESTABLISHING A LONG-RANGE DEFENSE PROGRAM

9. A very rough tentative agenda for the Committee has been prepared. This agenda would be reorganized by the secretary and distributed to the members of the Committee before the first meeting. It is appended hereto in this rough form to help in the understanding of the general problem.

10. The possibility that our country might suffer a radiological attack in a future war is very real. A foreign power striving to develop a bomb might be led, by the difficulties thereof, to the substitute development of radiological warfare. Or this weapon might be developed and used as a by-product to manufacture of a bomb. Certainly a bomb itself can have major radiological after-effects. Speculation on this general subject has been widespread for sometime. It is of utmost importance that an orderly examination of the problem be initiated at once, that the national needs for radiological preparedness be determined so far as possible, and that whatever development program is required to meet those needs be established and prosecuted vigorously.

1 Attachment:
Tentative Agenda

~~SECRET~~

1183912

~~SECRET~~

This document consists of 2 pages
Copy No. 1 of 12 Series A

APPENDIX
TENTATIVE AGENDA

1. Statement of the Problem.
 - A. Summary of background.
 - (1) History within Manhattan Project.
 - (2) Resume of official reports.
 - B. Present status of responsibility for development.
 - C. Purpose of Committee
2. Feasibility as a weapon.
 - A. Results of Bikini and other operations.
 - B. Feasibility of military use of radioisotopes and fission products now offered for sale.
 - (1) Types of emissions
 - (2) Energy distribution of emitted particle
 - (3) Half life
 - (4) Production feasibility
 - (5) Separation feasibility
 - (6) Chemical and physical processing feasibility to end product
 - (7) Biological effectiveness
 - (8) Packaging problems (handling, storing, canning)
 - (9) Delivery (shielded, unshielded)
 - (10) Dispersal feasibility (airborne, waterborne, integrated with chemical or bacteriological warfare)
 - (11) Feasibility of decontamination
 - (12) Possible peacetime application
 - C. Summary of existing scientific knowledge concerning the offensive capabilities of radiological warfare.

~~SECRET~~

1183913

4327-11223-1-39

MAILED 1951 KLV

~~SECRET~~

- 2 -

3. Capabilities of potential enemies to use this weapon based on available information and any pertinent recommendations as to more extensive information which should be gathered by intelligence agencies.
4. Defensive Measures.
 - A. Summary of existing scientific knowledge pertinent to defense.
 - (1) Medical
 - (2) Biological
 - (3) Detection and Measurement
 - (4) Protection
 - B. Estimate of national vulnerability from a scientific standpoint.
5. Probable scope of necessary overall national radiological preparedness program as indicated by the above.
6. Recommendation of the extent of the responsibility for this program that should be actively assumed by the Commission.

~~SECRET~~

1183914

NND 021121 184