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E.O. 12958, Sec. 2.3

NND 972006
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AEC 483/2

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October 25, 1951

COPY NO. 13

ATOMIC ENERGY COMMISSION

PLANS FOR FUTURE TEST OPERATIONS

Note by the Secretary

Attached for the information of the Commission is a letter dated October 23, 1951, to the Chairman of the MLC in response to a letter of September 19, 1951, circulated previously as AEC 334/14. Also attached, for ease of reference, are two memoranda which are referred to in the October 23 letter.

ROY B. SNAPP

Secretary

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DEPARTMENT OF ENERGY DECLASSIFICATION REVIEW	
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NAME: <u>William H. Harbo</u>	2. CLASSIFICATION CHANGED TO:
2ND REVIEW-DATE: <u>11/29/67</u>	3. CONTAINS NO DOE CLASSIFIED INFO
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NAME: <u>George Dunton</u>	5. CLASSIFICATION CANCELLED
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ENCLOSURE "A"

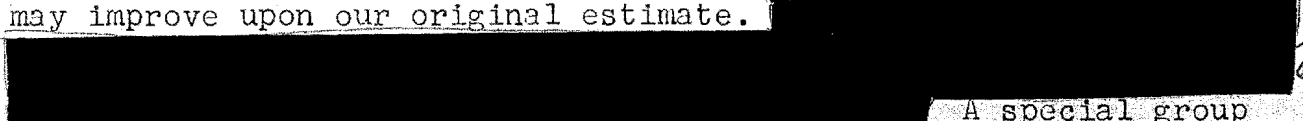
UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D. C.

October 23, 1951

Dear Mr. LeBaron:

In response to the suggestion made in your letter of 19 September 1951, the Commission will be happy to discuss with you at any time the factors which led to our conclusion that a thermonuclear device will not be ready for testing prior to the Winter of 1952-1953. We can, however, add little to the information supplied by Dr. Bradbury when he addressed the Committee on September 13, 1951.

To the extent that Fall is prior to Winter, the present plan may improve upon our original estimate.

 A special group has been established at Los Alamos charged with the coordination of all the technical tasks essential to the preparation of a thermonuclear device for the test in the Fall of 1952. In addition, the American Car and Foundry Company is undertaking the engineering design of the weapon and fabrication of the less unique parts of the actual device. It is our view that the proposal to design, fabricate and test a full scale model in one year's time is a truly ambitious undertaking and is indicative of the sense of urgency attached by the Commission and its contractors to the determination of the feasibility of a thermonuclear bomb.

The matter of a very high yield weapon was covered in a memorandum of 9 October from the Director of Military Application. While it is not possible at this time to set a date for testing this weapon, we would hope to include it in the next operation to be carried out in the Eniwetok area.



Sincerely yours,

UNITED STATES ATOMIC ENERGY COMMISSION

Sumner T. Pike
Acting Chairman

Honorable Robert LeBaron
Chairman, Military Liaison Committee
to the Atomic Energy Commission

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Enclosure "A"

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ENCLOSURE "B"

MEMORANDUM

October 9, 1951

TO : The Executive Secretary, Military Liaison Committee
SUBJECT: VERY LARGE YIELD ATOMIC WEAPONS
SYMBOL : MARD:PMB

[REDACTED]

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Such a feasibility study is currently in progress and is estimated for completion before 1 June 1952. However, certain preliminary information on the proposed weapon is available at this time prior to completion of the study.

It is expected that a new HE-pit system, usable in the present 60" bomb and yielding something in the general order of magnitude of 500 Kt, can be tested and readied for stockpile within the dates MLC has specified, namely, development completed by 1 January 1953 and stockpile entry 1 June 1953.

[REDACTED]

The prediction of yield to the limits of 500 KT- 15% stipulated in your memorandum is premature at the present time. It is not early, however, to consider this weapon for test at Eniwetok. The Commission hopes to include it in the next test operation proposed for that area.

The results of the completed feasibility study will be forthcoming in mid 1952.

K.E. Fields
Colonel, CE
Director of Military Application

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1ST REVIEW DATE: 9/12/01	DETERMINATION (CIRCLE NUMBER)
AUTHORITY: EAOB, EADD	<input checked="" type="radio"/> 1. CLASSIFICATION RETAINED
NAME: Betty A. Harris	<input type="radio"/> 2. CLASSIFICATION CHANGED
2ND REVIEW DATE: 11/29/01	<input type="radio"/> 3. CONTAINS NO DOE CLASSIFICATION
AUTHORITY: ADD	<input type="radio"/> 4. COORDINATE WITH:
NAME: Avery Austin	<input type="radio"/> 5. CLASSIFICATION CANCELLED
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Enclosure "B"

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ENCLOSURE "C"

MILITARY LIAISON COMMITTEE
TO THE
ATOMIC ENERGY COMMISSION
P.O. BOX 1814
WASHINGTON, D. C.

MEMORANDUM

August 20, 1951

TO : The Director, Division of Military Application,
Atomic Energy Commission

SUBJECT: YIELD OF GUN-TYPE WEAPONS

1. The Department of the Army has been advised informally by Los Alamos that information is available on the extent of reduction in yield to be expected with gun-type assemblies using smaller amounts of fissionable material.

2. Tactical studies have made it apparent that there are situations for which a 5-10 KT yield weapon would be adequate. Accordingly, in the interest of fissionable material economy, it is requested that the Atomic Energy Commission furnish the Military Liaison Committee information on yield versus mass of fissionable material in a gun-type assembly. This information should be based on the assumption that the present gun-type weapon geometry is used and that the variation in yield is accomplished by using various combinations of stockpile elements.

3. In addition, the Military Liaison Committee desires information on the yields that might be obtained with the following:

a. A 240 mm projectile using current weapon technology.

5. Concerning the information requested herein, a very early reply to paragraph 3a above is particularly desired. It is understood that Los Alamos has been given advance notice on this item in order to expedite the calculations on the 240 mm projectile.

FOR THE COMMITTEE:

/s/WM.B. Kieffer
Col., USAF
Act. Exec. Secretary

- 3 -

Enclosure "C"

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By DM LSA Date 6/23/05

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NAME: [Signature]
2ND REVIEW DATE: 11/27/51
AUTHORITY: ADO
NAME: [Signature]

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