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E.O. 12958, Sec. 3.6

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By DM LFL Date 7/23/05

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SECURITY INFORMATION

AEC 597/2

COPY NO. 15

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December 10, 1952

ATOMIC ENERGY COMMISSION

OPERATION CASTLE - STATUS OF LASL AND UCRL PROGRAMS

Note by the Secretary

The Division of Military Application has submitted for the information of the Commission the two attached letters which give a brief resume of the status of the programs at the Los Alamos Scientific Laboratory and the University of California Radiation Laboratory. The Division of Military Application has advised LASL to proceed at once with their proposed program from a technical viewpoint, but stated that the date of CASTLE will not be firm until discussions with the DOD have been completed and agreement has been reached on the proposed programs.

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FOLDER #3 MRA-7 CASTLE

DEPARTMENT OF ENERGY DECLASSIFICATION REVIEW
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A and Enclosure B, pp 943-81
Note (950 24) 951 are identical

WITH ATTACHMENTS/ENCL	
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ROY B. SNAPP
Secretary

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See memo dat. 2-26-53
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This document consists of 7 pages

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By Authority of U. S. Atomic Energy Commission

For Brig. Gen. K. E. Fields, 2/25/53

Document No. LXI-2165-15A
(classification changed per memo from
DIR, dtd 2/20/53)

ENCLOSURE "A"

UNIVERSITY OF CALIFORNIA
LOS ALAMOS SCIENTIFIC LABORATORY
(CONTRACT W-7405-ENG-36)
P.O. BOX 1663
LOS ALAMOS, NEW MEXICO

In Reply
Refer To: DIR-778

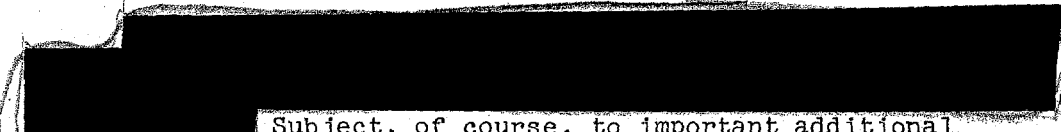
28 November 1952

Brig. General K. E. Fields
Director of Military Application
U. S. Atomic Energy Commission
Washington 25, D. C.

Via: C. L. Tyler, Manager, Santa Fe Operations Office

Dear General Fields:

Although the annual program submission of the Los Alamos Scientific Laboratory does not ordinarily occur until about the first of each calendar year, recent events strongly suggest the advisability of furnishing your office with advance information concerning the general nature of the test program which we will propose in our forthcoming formal presentation.



Subject, of course, to important additional information to be obtained regarding thermonuclear systems and radiation implosion engineering in Operation UPSHOT, we believe that the main outlines of Operation CASTLE can now be forecast for planning purposes along the following lines.

The Los Alamos Scientific Laboratory may presently be expected to propose four shots for CASTLE having the following general characteristics:

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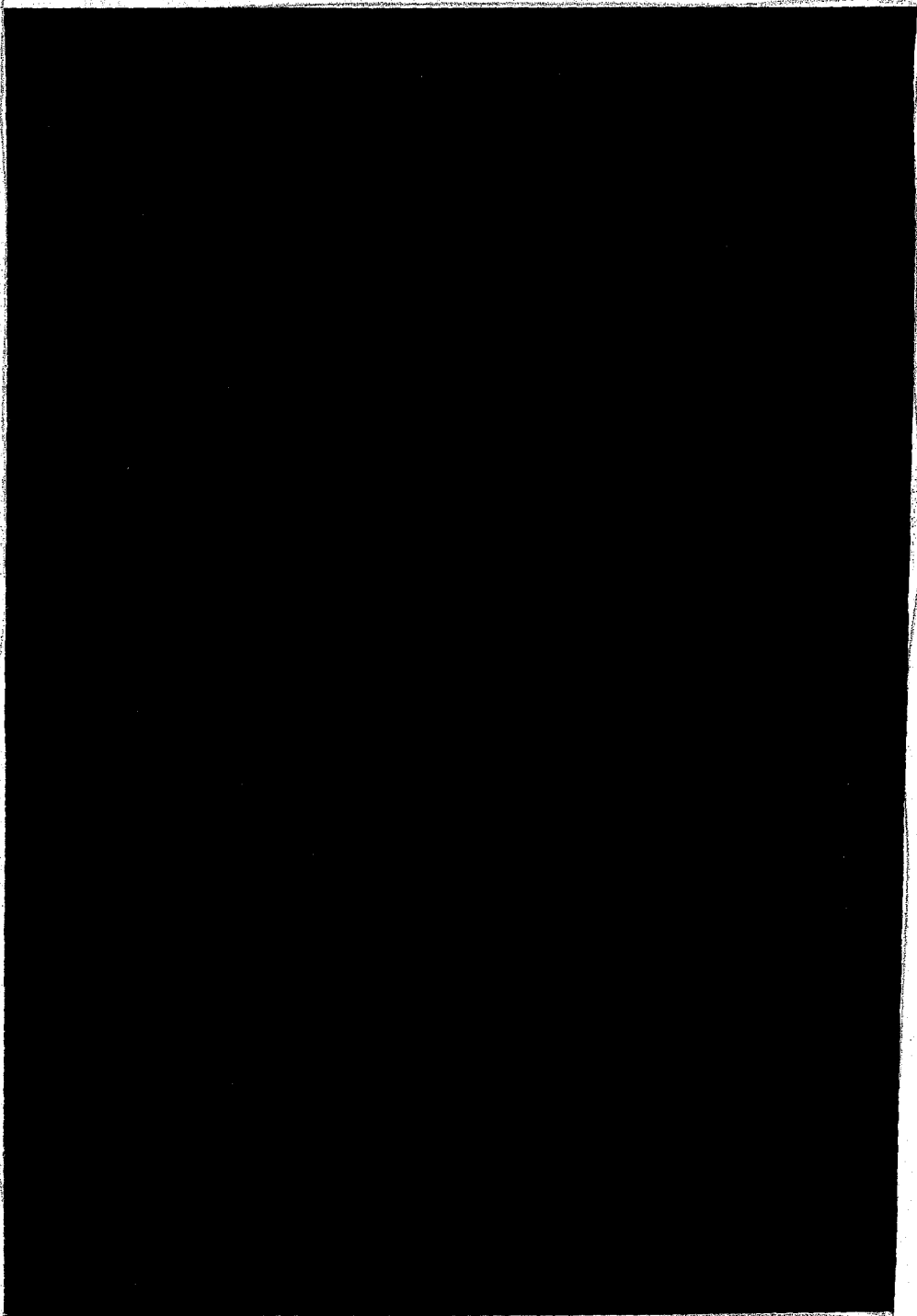
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Enclosure "A"
GROUP 1
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CLASSIFICATION CANCELLED
OR CHANGED TO S/AD/61
BY AGENCY OF CASTLE/OK 2/27/54
BY CLT DATE 3-11-69

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The Los Alamos Scientific Laboratory further wishes to propose that Operation CASTLE now be firmly scheduled for the spring of 1954. We recognize that this date differs from that tentatively discussed up to the present time, but there now appear to us to be a number of compelling reasons which support this proposal, and which make an earlier date impractical and

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inadvisable. These reasons are enumerated below:

[REDACTED]

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The UPSHOT program is now extending well into May 1953 and may be subject to still further delays. The Los Alamos Scientific Laboratory believes that several months are required for the evaluation and proper application of UPSHOT results to CASTLE designs, and that an earlier date for CASTLE will make it unlikely that there will be full use of the earlier results. This could have the effect of either jeopardizing the subsequent program or of making it impossible to employ the otherwise possible technical achievements.

[REDACTED]

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6.1(a)

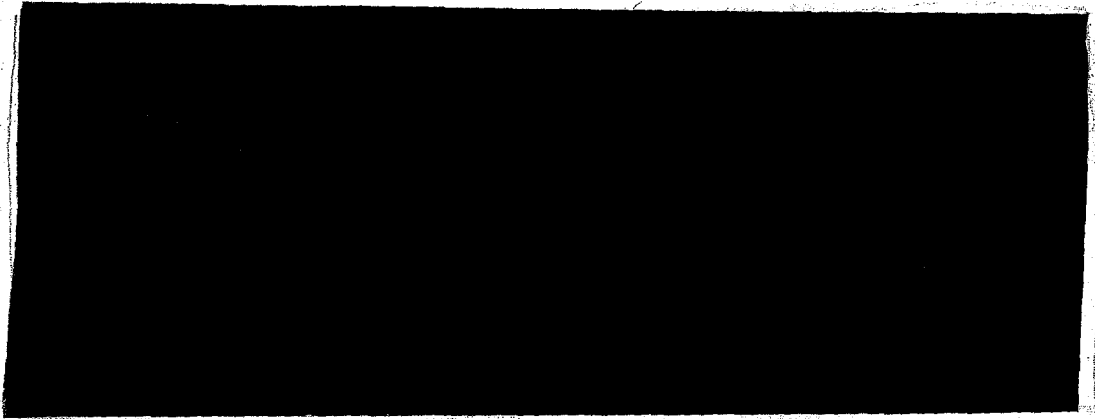
3. From the practical standpoint of test operations the time between UPSHOT and CASTLE as earlier proposed is too short and is becoming even more so with UPSHOT delays and postponements. Furthermore, the length of the CASTLE test operation proposed (particularly when supplemented by the Livermore proposals) makes it essential that a season at Eniwetok be picked when the weather is as good as possible and, when the inevitable shot day postponements occur, the consequent delay in the program does not lead to times of still worse weather but rather to better weather. Finally, we believe it impractical, if not impossible, to require civilian test personnel and task force personnel to be overseas during the latter part of December.

[REDACTED]

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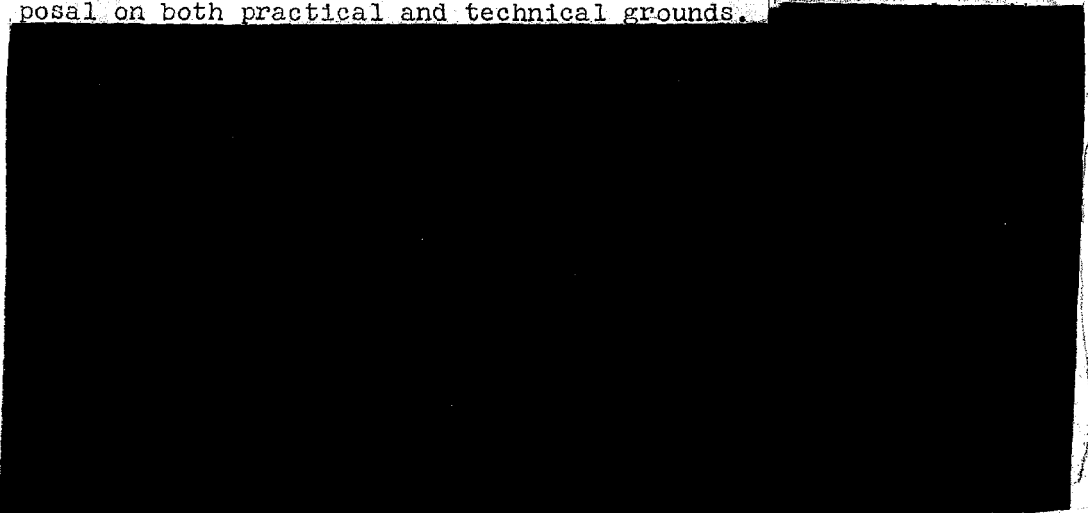
Indeed, it is a serious concern of the Los Alamos Scientific Laboratory that appropriate military logistic support for a system of this nature can be ready in time to provide this feature of real capability for emergency use in the event of war.

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We are also aware that a suggestion may be made to divide the operation into two phases - one in the fall of 1953 and one in the spring of 1954. We are strongly opposed to such a proposal on both practical and technical grounds.



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Operation DOMINO, originally tentatively suggested as occurring in the spring of 1954 period, may either be still further postponed, or may occur, on a very limited basis, in Nevada in the fall of 1953.



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We are presenting this advance information on this phase of the formal Los Alamos Scientific Laboratory program in view of the urgency of making decisions relating to Eniwetok at the earliest possible date. In view of the concurrence which we have already received in informal discussions, we are proceeding to implement these decisions as rapidly as possible. We recognize that a test

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program of this magnitude, particularly if still further extended by experiments for Livermore, will place a serious burden on the task force and its technical staff. We are, however, of the opinion that this does not yet present an insuperable problem if certain technical administrative assistance can be received from Livermore in addition to the particular experimental program which they have agreed to undertake in this operation. This matter, however, will be the subject of separate correspondence.

Sincerely yours,

/s/

N.E. Bradbury
Director

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ENCLOSURE "B"

UNIVERSITY OF CALIFORNIA
RADIATION LABORATORY
BERKELEY 4, CALIFORNIA

November 24, 1952

Brig. Gen. K.E. Fields
Atomic Energy Commission
Division of Military Application
Washington, D.C.

Dear General Fields:

As you know, UCRL Livermore spent the first few months of its existence working out plans and working over ideas to see what it could do to best carry out its mission of increasing the effort in the thermonuclear program. These plans began to have some semblance of firmness on about November 1, 1952, and it is only since then that our engineering and service organizations have been able to make a study of the feasibility and possible timing of the proposed weapons research program. The proposed device test program was as follows:



The feasibility and timing study of the above program has brought out the following points:

- I. The Operation Upshot program can be carried out as planned barring major accidents or unexpected difficulties in processing.

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II. The diagnostic experiments for LASL can be done if Castle should be as early as September 1953.

III. The preparation of our own devices could probably not be done in time for a test as early as September 1953, but could be done if Castle were in late winter or early spring 1954

IV. Any delay beyond spring 1954 in testing these devices would in our present opinion, result in an equal delay not only in our immediate objectives, but also in our long term contribution to the weapons program.

We therefore recommend that, in order to optimize the UCRL contribution to both the long range and short range program, Operation Castle be held in spring 1954.

Sincerely,

/s/

HERBERT F. YORK

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II. The diagnostic experiments for IASL can be done if Castle should be as early as September 1953.

III. The preparation of our own devices could probably not be done in time for a test as early as September 1953, but could be done if Castle were in late winter or early spring 1954

IV. Any delay beyond spring 1954 in testing these devices would in our present opinion, result in an equal delay not only in our immediate objectives, but also in our long term contribution to the weapons program.

We therefore recommend that, in order to optimize the UCRL contribution to both the long range and short range program, Operation Castle be held in spring 1954.

Sincerely,

/s/

HERBERT F. YORK

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NW 97200GA
By DM JF Date 7/25/02

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Enclosure "B"

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