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ADWD-160

Redacted VERSION

LAMD-352

FAMILY COMMITTEE
Minutes of Sixteenth Meeting
July 13, 1950.

SAA 2006 951006

A. Attendance.

The sixteenth meeting of the Family Committee was held Thursday, July 13, 1950 at 1:15 PM in Room B-117. Those present were:

N. E. Bradbury
J. C. Clark
F. de Hoffmann
A. C. Graves
E. F. Hammel
E. R. Jette
E. Konopinski
D. P. MacDougall
J. C. Mark
R. E. Schreiber
L. B. Seely
R. F. Taschek
E. Teller, Chairman
J. von Neumann
H. F. York

B. Minutes of the Fifteenth Meeting.

The Committee unanimously adopted the minutes of the Fifteenth Meeting, reported in ADWD-157, with the following correction:

On Page 1 under attendance, J. P. MacDougall should read D. P. MacDougall.

C. Aberdeen Calculations.

DO
b(3)

It was reported that it is hoped that the Princeton MANIAC may be ready in October or November and this would tend to cut the present time of

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Correction Made on Page 4.
7-17-50 V. Hamey

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Title 14

ORS 2006 951004

one month required to do a problem on the ENIAC to about one to three days on the MANIAC.

D. [redacted]

DOE b(3)

It will be recalled that at the last meeting the question of the mockup spot was left open. The following possibilities were considered with respect to the second spot and the X-ray experiment:

(1) Mockup spot identical or similar to the one shown in Figure 2 of the Fifteenth Minutes.

(2) [redacted]

(3) [redacted]

DOE b(3)

(4) Eliminating the second spot for the X-ray experiment entirely.

Results of a discussion on Thursday morning, July 13, 1950 (de Hoffmann, Fermi, Konopinski, Seely, Sternheimer, Teller and York participating) led to the following picture: [redacted]

DOE b(3)

It was agreed that possibility (4) should only be a last resort because people responsible for the X-ray experiment would like to make measurements on more than one spot if possible. This leads to a choice between possibilities (2) and (3).

[redacted] It is difficult to calculate the effect of these Taylor instabilities.

DOE b(3)

[redacted] The question was answered in the negative. Possibility (2) would give slightly more information on this point.

A more detailed description of possibility (3) was given.

[redacted]

DOE b(3)

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DOE b(3)

[redacted]

The Committee decided that an attempt should be made at possibility (3) but that if this proved infeasible either for reasons connected with the X-ray experiment itself or for reasons such as those mentioned by Schreiber, the second spot would be abandoned.

[redacted] It was noted parenthetically that such a decision would probably allow one to revert to possibility (2) if it should appear very desirable. DOE b(3)

York reported that Fermi had raised objections to the previous estimates of the temperature at which the diaphragm in the X-ray tube would be heated by radiation. Fermi pointed out that the previous calculations had been performed as if the vertical wall of the tube were essentially non-existent.

[redacted] In addition, at such a high temperature the walls would radiate and influence the surface temperature of the spot which is to be measured. Various schemes for eliminating this difficulty have been examined in a preliminary manner. DOE b(3)

[redacted]

DOE b(3)

[redacted]

DOE b(3)

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DOE
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A fit of approximately 10 mil was considered as probably both sufficient and feasible.

DOE
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Executive Secretary.

DOE
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Distribution:

1A N. E. Bradbury
2A W. C. Bright
3A S. W. Burriss
4A J. C. Clark
5A D. K. Froman
6A R. W. Goranson
7A A. C. Graves
8A G. K. Hess
9A M. G. Holloway
10A E. R. Jette
11A " " "
12A J. M. B. Kellogg
13A E. Konopinski
14A D. P. MacDougall
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DOE
b(3)