

UNCLASSIFIED

~~SECRET~~

This document consists of 13 pages.  
No. 99 of 42 copies Series A.

**Redacted  
VERSION**

FAMILY COMMITTEE  
Minutes of Eleventh Meeting  
May 25, 1950

LAMD-319

ADWD-141

504-460-735000  
Unique

A. Attendance.

The eleventh meeting of the Family Committee was held Thursday, May 25, 1950 at 1:15 PM in Room B-117. Those present were

- |                  |                     |
|------------------|---------------------|
| G. Best          | J. C. Mark          |
| J. C. Clark      | H. L. Mayer         |
| F. de Hoffmann   | N. Metropolis       |
| D. K. Froman     | M. Roy              |
| R. W. Goranson   | R. F. Taschek       |
| G. K. Hess       | J. M. Taub          |
| M. G. Holloway   | E. Teller, Chairman |
| J. M. Keller     | F. M. Walters       |
| E. Konopinski    | J. A. Wheeler       |
| D. P. MacDougall |                     |

B. Minutes of the Tenth Meeting.

The Committee unanimously adopted the minutes of the Tenth Meeting reported in ADWD-139 with the following corrections:

- (1) On page 2, in the penultimate sentence of the first paragraph of item D, change the word "initiator" to read "detonator".
- (2) On page 5, on lines 14 through 16, omit the sentence starting with "The Committee..."

+08  
6(13)

C.

DEPARTMENT OF ENERGY DECLASSIFICATION REVIEW

1ST REVIEW DATE: 03/19/96

2ND REVIEW DATE: 07-28-97

NAME: (S) Wheeler

CLASSIFICATION CANCELLED

CLASSIFIED INFO BRACKETED

OTHER (SECRET)

DOE  
101

DOE  
65

UNCLASSIFIED

RESTRICTED DATA

document contains restricted data as defined in the Atomic Energy Act of 1946.

~~SECRET~~

CAUTION  
This document contains information affecting the National Defense of the United States. Its transmission or the disclosure of its contents in any manner to an unauthorized person is prohibited and may result in severe criminal penalties under applicable Federal laws.

DOE  
b(3)

DOE  
b(3)

DOE  
b(3)

DOE  
b(3)

As usual this efficiency calculation involves the variation of alpha as a function of time. Figure 2 shows the variation of alpha as a function of radius of the sphere.

Figure 2 also shows the change in the alpha curve if the tamper is finite (assumed 1 mean free path of tube alloy). The same  $\alpha_0$  is obtained and the initial slope is close to the previous one.

A separate efficiency calculation for this case has not yet been performed.

DOE  
b(3)

DOE  
b(3)

Doubt was expressed that this figure actually would be as low as calculated. In particular, Holloway cited the result obtained with Yoke as suggesting that the yield would probably be higher.

DOE  
b(3)

Figure 3 shows the variation of energy developed as a function of  $\frac{R}{R_0}$  of the equivalent sphere. Since for the purposes of radiation studies we are interested in the internal energy developed, there is also shown a curve showing what fraction of the total energy is due to internal energy. One may also calculate the average temperature  $\bar{T}$  in the oralloy as a function of  $R$  as indicated on Figure 4.

DOE  
b(3)

indicated in Figure 4.

this case is also

DOE  
b(3)

DOE  
b(3)

Wheeler then reported the requirements attendant upon the temperature of the radiation in order to make the DT go.

DOE  
b(3)

~~SECRET~~

UNCLASSIFIED

-4-



DO  
b(3)

8150-1

~~SECRET~~

UNCLASSIFIED

DOE  
b(3)

This sketch is shown in Figure 6 and shows the assembly at the initial stage before firing. It should be emphasized that this drawing is to be taken purely as a sketch and that the dimensions and materials will be fixed upon in the near future so that GMX can perform experiments along the lines of such an assembly.

DOE  
b(3)

1-03827

~~SECRET~~  
~~SECRET~~

UNCLASSIFIED

DOE  
b(3)

(It was suggested that the critical distance in question  
be tied down somewhat better by Pajarito experiments if time is available  
at Pajarito to do so.)

DOE  
b(3)

DOE  
b(3)

DOE  
b(3)

00580-1

~~SECRET~~

UNCLASSIFIED

DOE  
b(3)

E. Future Meetings.

The next meeting is to take place on June 1, 1950 and is to concern itself primarily with the X-ray Experiment. Hammel, Keller, Konopinski, Reines, Seely, Wheeler and York are going to be invited to this meeting.

Future meetings are to take place on June 8th, June 22nd, and June 28th.

DOE  
b(3)

*Friedrich de Hoffmann*

Executive Secretary

Distribution:

- |     |                  |     |                |
|-----|------------------|-----|----------------|
| 1A  | N. E. Bradbury   | 23A | A. R. Sayer    |
| 2A  | W. D. Bright     | 24A | R. F. Taschek  |
| 3A  | S. W. Burriss    | 25A | E. Teller      |
| 4A  | J. C. Clark      | 26A | " "            |
| 5A  | D. K. Froman     | 27A | " "            |
| 6A  | R. W. Goranson   | 28A | " "            |
| 7A  | A. C. Graves     | 29A | " "            |
| 8A  | G. K. Hess       | 30A | J. von Neumann |
| 9A  | M. G. Holloway   | 31A | J. A. Wheeler  |
| 10A | E. R. Jette      | 32A | Document Room  |
| 11A | " " "            | 33A | " "            |
| 12A | J. M. B. Kellogg | 34A | " "            |
| 13A | E. Konopinski    | 35A | " "            |
| 14A | D. P. MacDougall | 36A | " "            |
| 15A | " " "            | 37A | " "            |
| 16A | D. P. MacMillan  | 38A | " "            |
| 17A | J. H. Manley     | 39A | J. M. Keller   |
| 18A | J. C. Mark       | 40A | R. W. Spence   |
| 19A | H. C. Paxton     | 41A | A. C. Graves   |
| 20A | F. Reines        | 42A | R. C. Smith    |
| 21A | " " "            |     |                |
| 22A | " " "            |     |                |

57880-1

~~SECRET~~

-3-

UNCLASSIFIED

DOI  
b(3)

FIG. 1

DOE  
b(3)

UNCLASSIFIED

~~SECRET~~

~~SECRET~~ 9

UNCLASSIFIED

Kruppel & Kasper Co., N. Y. 100 Sub-7c  
Millhouses, 5000. Head mounted, on. Free library.  
4128 P.U.S.A.

DO  
13

UNCLASSIFIED

~~SECRET~~

UNCLASSIFIED

KEUFFEL & ESSER CO., N. Y. NO. 389-11  
10 X. In this case, the 25th item accepted.

DOE  
(3)

UNCLASSIFIED

*[Handwritten signature]*  
REC'D

~~SECRET~~

UNCLASSIFIED

TOP  
(3)

GENERAL A. ESKER CO., N. Y., NO. 389-11

UNCLASSIFIED

~~SECRET~~ -12-

UNCLASSIFIED

DE  
(3)

KEUFFEL & ESSER CO., N. Y., NO. 380-14  
Milliners. I am. These secreted. em. Hase. Navy

UNCLASSIFIED

~~SECRET~~ -13-

UNCLASSIFIED

DOE  
b(3)

FIG. 6 <sup>u</sup> UNCLASSIFIED

~~SECRET~~