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ADWD-242

Redacted
VERSION

FAMILY COMMITTEE
Minutes of Thirty-second Meeting
February 17, 1951

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LAMD-569
UNCLASSIFIED

SFA 200069970060
Unique Document #

A. Attendance.

The thirty-second meeting of the Family Committee was held Saturday, February 17, 1951 at 9:00 AM in Room B-117. Those present were:

- | | |
|----------------|---------------------|
| J. C. Clark | E. R. Jette |
| F. de Hoffmann | D. P. MacDougall |
| D. K. Froman | R. F. Taschek |
| R. W. Goranson | E. Teller, Chairman |
| M. G. Holloway | J. A. Wheeler |

B. Minutes of Thirty-first Meeting.

The Committee unanimously adopted the minutes of the thirty-first meeting as reported in ADWD-237 with the following correction:

On page 4, line 17, the word "diameter" should read "radius".

C.

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1. Initiator

The Committee examined memoranda GMX-529 and GMX-543 which are appended to these minutes. The recommendations of GMX-543 were agreed to by the Committee.

At that time, one will be able to choose between a greater predetonation probability due to increased background and an increased assurance in timing, or the possibility of a decreased predetonation probability and less certainty in timing.

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DEPARTMENT OF ENERGY DECLASSIFICATION REVIEW
1. DETERMINATION (CIRCLE NUMBER(S))
2. CLASSIFICATION RETAINED
3. CLASSIFICATION CHANGED TO:
4. CONTAINS NO DOE CLASSIFIED INFO
5. COORDINATE WITH:
6. CLASSIFICATION CANCELLED
7. CLASSIFIED INFO BRACKETED
1ST REVIEW DATE: 8-21-97
AUTHORITY: EAO/C DAC/CEAD/D
NAME: [Signature]
2ND REVIEW DATE: 9/18/02
AUTHORITY: [Signature]
NAME: [Signature]

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These considerations were discussed in a meeting at Los Alamos with York and others on February 15. At this meeting, consideration was given to the question of size of the spots. Decreasing the size of the spots would have the advantage of more sharply defining the place at which the measurement is made and also decreasing the interaction between the two spots.

It was agreed that the latter difficulty outweighed the advantages to be gained from decreasing the spot so that the size is to remain the same.

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3. (n,2n) Experiment

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It was agreed that Jetts, Spence, Teller and Wheeler should be charged with agreeing on the final details concerned with the plating and that they should inform the Family Committee of their decision.

4. [Redacted]

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There is some chance that the equipment may be debugged and in operation by March 1st so that Potts can carry out a dry run on his equipment here rather than at Eniwetok.

[Large Redacted Area]

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D. Next Meeting.

The next meeting of the Committee is to take place on Friday, March 2, 1951. The two main items on the agenda are to be: (1) Criteria for shooting the Booster. (2) A report on the current status of the Alarm Clock.

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Francis de Hoffmann
Executive Secretary

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Distribution

- | | | | |
|-----|------------------|-----|----------------|
| 1A | N. E. Bradbury | 25A | E. Teller |
| 2A | W. C. Bright | 26A | " " |
| 3A | S. W. Burriss | 27A | " " |
| 4A | J. C. Clark | 28A | " " |
| 5A | D. K. Froman | 29A | " " |
| 6A | R. W. Goranson | 30A | J. von Neumann |
| 7A | A. C. Graves | 31A | J. A. Wheeler |
| 8A | G. K. Hess | 32A | Document Room |
| 9A | M. G. Holloway | 33A | " " |
| 10A | E. R. Jette | 34A | " " |
| 11A | " " | 35A | " " |
| 12A | J. N. B. Kellogg | 36A | " " |
| 13A | J. L. Tuck | 37A | " " |
| 14A | D. P. MacDougall | 38A | " " |
| 15A | " " | 39A | C. Longmire |
| 16A | D. P. MacMillan | 40A | R. W. Spence |
| 17A | J. H. Manley | 41A | A. C. Graves |
| 18A | J. C. Mark | 42A | R. C. Smith |
| 19A | H. C. Paxton | 43A | W. E. Ogle |
| 20A | F. Reines | 44A | E. Teller |
| 21A | " " | 45A | " " |
| 22A | " " | 46A | " " |
| 23A | A. R. Sayer | 47A | " " |
| 24A | R. F. Taschek | 48A | " " |

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FIG. 1

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APPENDIX I

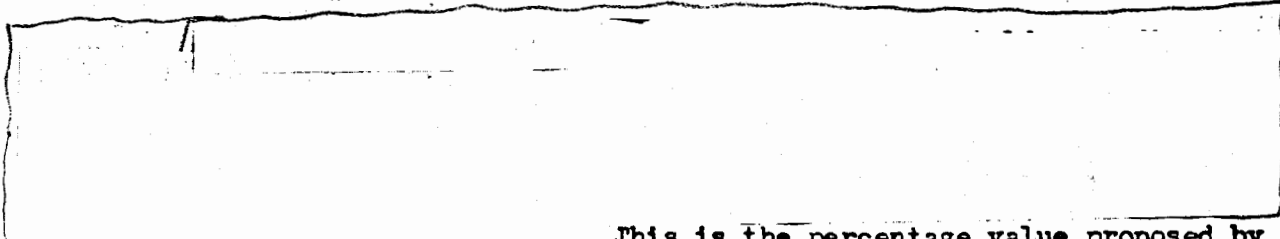
22 January 1951

~~SECRET~~
MEMORANDUM

TO: D. P. MacDougall
FROM: R. W. Goranson
SUBJECT:
SYMBOL: GMX-529

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The estimated yield versus initiation time curve of Figure 1 is based on the estimated compression versus time of the same figure. It should be noted that the average compressions have been reduced between 2 and 3 per cent from those plotted in Figure 2 of the minutes of the 30th meeting of the Family Committee. This was done in order to take into account the effects of end expansion. The yield curve of Figure 1 is based on Figure 2, which is a plot prepared by Taylor of alpha and yield versus explosion time.



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This is the percentage value proposed by Betha at the 31st meeting of the Family Committee.

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From calculations by Longmire and Pajarito measurements, a source strength value is expected to be available by about Friday, January 26, 1951.

R. W. Goranson
R. W. Goranson

- RWG:lra
Distribution:
1/A - D. P. MacDougall
2/A - D. P. MacDougall
3/A - N. E. Eradbury
4/A - J. C. Clark
5/A - D. K. Froman
6/A - R. W. Goranson
7/A - A. C. Graves
8/A - M. G. Holloway
9/A - E. R. Jette
10/A - J. C. Mark
11/A - R. F. Taschek
12/A - E. Teller

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FIG. 3
APPENDIX I

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350-14 KEUFFEL & ESSER CO.
Millimeter, 5 mm; lines accepted; etc. lines only



FIG. 2



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8 February 1951

MEMORANDUM

TO: DISTRIBUTION
FROM: D. P. MacDougall
SUBJECT:
SYMBOL: GMX-543

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Longmire presented the results of his analysis, which included the results of W-2 measurements.

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D. P. MacDougall

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26 January 1951

MEMORANDUM

To: The Family Committee

From: R. W. Goranson

Subject: [REDACTED]

Symbol: GMX-534

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[REDACTED]

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3. In order to correlate the nickel activity with the number of 14 mev neutrons, a calculation was originally proposed.

[REDACTED]

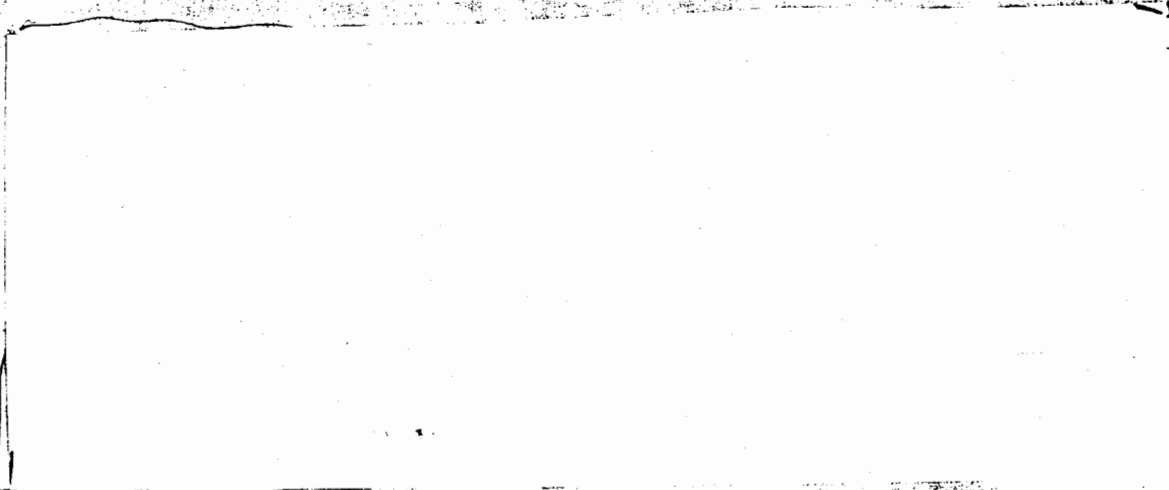
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4. In consequence, Arnev proposes the following:

[REDACTED]

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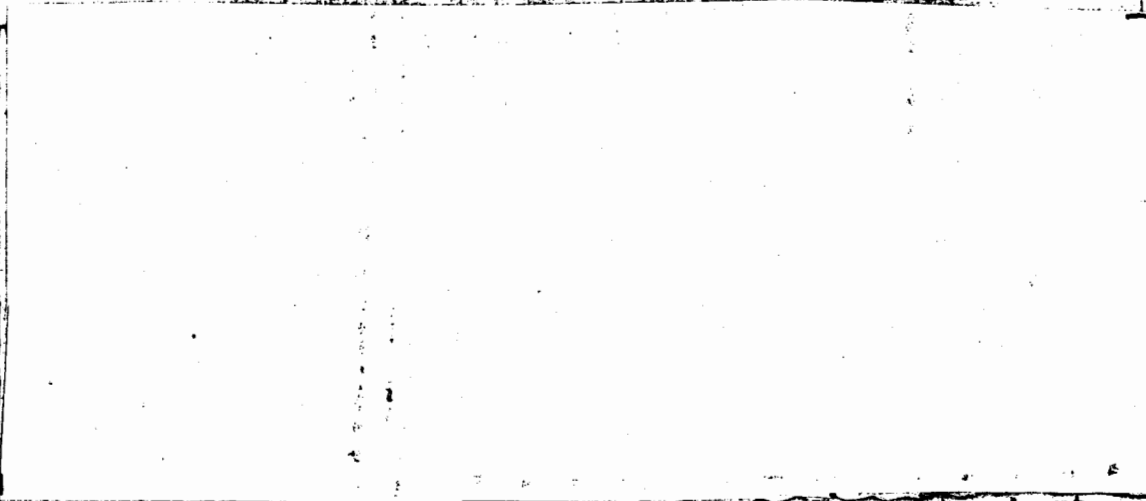


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6. It is not the purpose of this memorandum to advocate any particular action.

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Teller has recently expressed a desire to have such a calibration available at the time of the test. This can be calculated to within a factor of 2 without a mockup calibration which may be sufficient for Teller's preliminary needs.



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In addition, a quick answer is expected from the Phonex experiment.

R. W. Goranson