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Symbol: TM-70

Group Ref: TMG-M3⁴

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This document consists of 5 pages, 1 K 16.
No. 44-166

August 4, 1952

MINUTES OF THE THIRTY-FOURTH MEETING OF THE THEORETICAL MEGATON GROUP

29 July 1952

1. The thirty-fourth meeting of the TMG convened at 1:15 PM on Tuesday, 29 July 1952, in the S-Conference Room. Those present were:

H. A. Bethe	J. C. Mark, Chairman
N. E. Bradbury	H. L. Mayer
A. A. Broyles	N. Metropolis
K. M. Case	L. W. Nordheim
G. Cowan	W. E. Ogle
C. L. Critchfield	A. T. Peaslee, Jr.
F. de Hoffmann	J. C. Potts
E. Fermi	F. Reines
D. K. Froman	R. D. Richtmyer
G. M. Grover	M. Rosenbluth
M. G. Holloway	B. R. Suydam
F. C. Hoyt	E. Teller
R. M. Landshoff	J. L. Tuck
C. L. Longmire	S. M. Ulam

E. J. Zadina

DEPARTMENT OF ENERGY DECLASSIFICATION REVIEW	
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5. AUTHORITY: AND	6. AUTHORITY: AND
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Topics

2. Correction to previous minutes.
3.
4.
5. Other design details.
6. Alarm clock implosion calculations.
7. Wall thickness.
8. Experimental program for Upshot (Nevada Spring '53).

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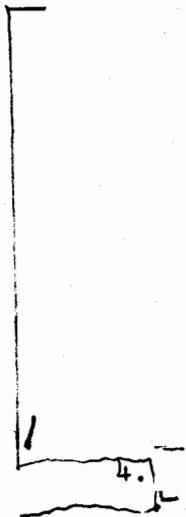
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3.



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5. Other Design Details

Holloway proposed two questions of design detail.



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However, the last figure should be tied down by more study of the effect.

6. Alarm Clock Implosion Calculations

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The density distribution in this case was obtained from mocking-up SEAC runs.

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7. Wall Thickness

Bethe developed a simple formula for the time t_B it takes the Taylor instability to cause a break in terms of the time t_s it takes a shock to traverse the wall.

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8. Experimental Program for Upshot (Nevada Spring '53)

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(a) Radiochemistry!

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(b) Nuclear emulsion plates as at Greenhouse.

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(d) GANEX. Ogle pointed out that it involves a large effort and should be undertaken only if the time dependence of the reaction was of great interest.

(e) TENEX. Bethe considered temperature more interesting than time.

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There was no specific discussion on these. General points brought up were: It is necessary to keep the total yield of each test below 40 KT. There is a need for radiation flow calculations to decide dimensions.

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It was mentioned that there are some worries about a delay in the availability of Li₆ in time for Castle

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Rolf Landshoff
Rolf Landshoff

Distribution:

1A - H. H. Barschall	24A - N. Metropolis
2A - G. Bell	25A - L. W. Nordheim
3A - H. A. Bethe	26A - W. E. Ogle
4A - W. Bouricius	27A - J. Pasta
5A - N. E. Bradbury	28A - F. Reines
6A - S. W. Burriss	29A - J. R. Reitz
7A - J. Calkin	30A - R. D. Richtmyer
8A - B. G. Carlson	31A - M. Rosenbluth
9A - E. D. Cashwell	32A - R. W. Spence
10A - F. de Hoffmann	33A - P. R. Stein
11A - F. Evans	34A - E. Teller
12A - B. E. Freeman	35A - J. L. Tuck
13A - D. K. Froman	36A - S. M. Ulam
14A - R. B. Gibney	37A - J. von Neumann
15A - A. C. Graves	38A - M. C. Walske
16A - L. E. Hightower	39A - B. E. Watt
17A - M. G. Holloway	40A - J. A. Wheeler
18A - F. C. Hoyt	41A - H. F. York
19A - E. R. Jette	42A - E. J. Zadina
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21A - C. L. Longmire	44A - Report Library
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23A - H. L. Mayer	46A - File

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