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TmG-m27Z

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THIS DOCUMENT CONSISTS OF 8 PAGE(S) + 3 figures

May 14, 1952

11 pgs total

MINUTES OF THE TWENTY-SEVENTH MEETING OF THE THEORETICAL MEGATON GROUP

7 May 1952

1. The twenty-seventh meeting of the TMG convened at 9 a.m., Wednesday, 7 May 1952, in the W Division Conference Room. Those present were:

- | | |
|----------------|----------------------|
| W. Bouricius | F. C. Hoyt |
| A. A. Broyles | R. M. Landshoff |
| J. J. Devaney | C. L. Longmire |
| C. L. Evans | J. C. Mark, Chairman |
| F. Evans | H. L. Mayer |
| B. E. Freeman | J. C. Potts |
| R. W. Goranson | R. D. Richtmyer |
| G. M. Grover | S. M. Ulam |
| M. G. Holloway | E. J. Zadina |

Topics

2. Status of Machine Calculations.

[Redacted area]

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DEPARTMENT OF ENERGY DECLASSIFICATION REVIEW

1. REVIEW DATE: 2-2-57

2. DETERMINATION (CIRCLE NUMBER(S))

3. CLASSIFICATION RETAINED

4. CLASSIFICATION CHANGED TO:

5. CONTAINS NO DOE CLASSIFIED INFO

6. COORDINATE WITH:

7. CLASSIFICATION CANCELLED

8. CLASSIFIED INFO BRACKETED

9. OTHER (SPECIFY):

AUTHORITY: OACD OACD EADD

NAME: [Signature]

2ND REVIEW DATE: 7/3/97

AUTHORITY: ADD

NAME: [Signature]

5. Radiation Flow Calculations.

2. Status of Machine Calculations.

Matterhorn.

a. Complete burning calculation has been coded for UNIVAC operation.

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LASL.

a. The UNIVAC calculation on the Alarm Clock is expected to be completed in a week.

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b. The MANIAC implosion calculation is now proceeding.

3.]

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Longuire stated that the experiments will probably be concluded toward the end of the week.

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It is not known if this is caused by a scattering effect or if σ and f are wrongly taken.

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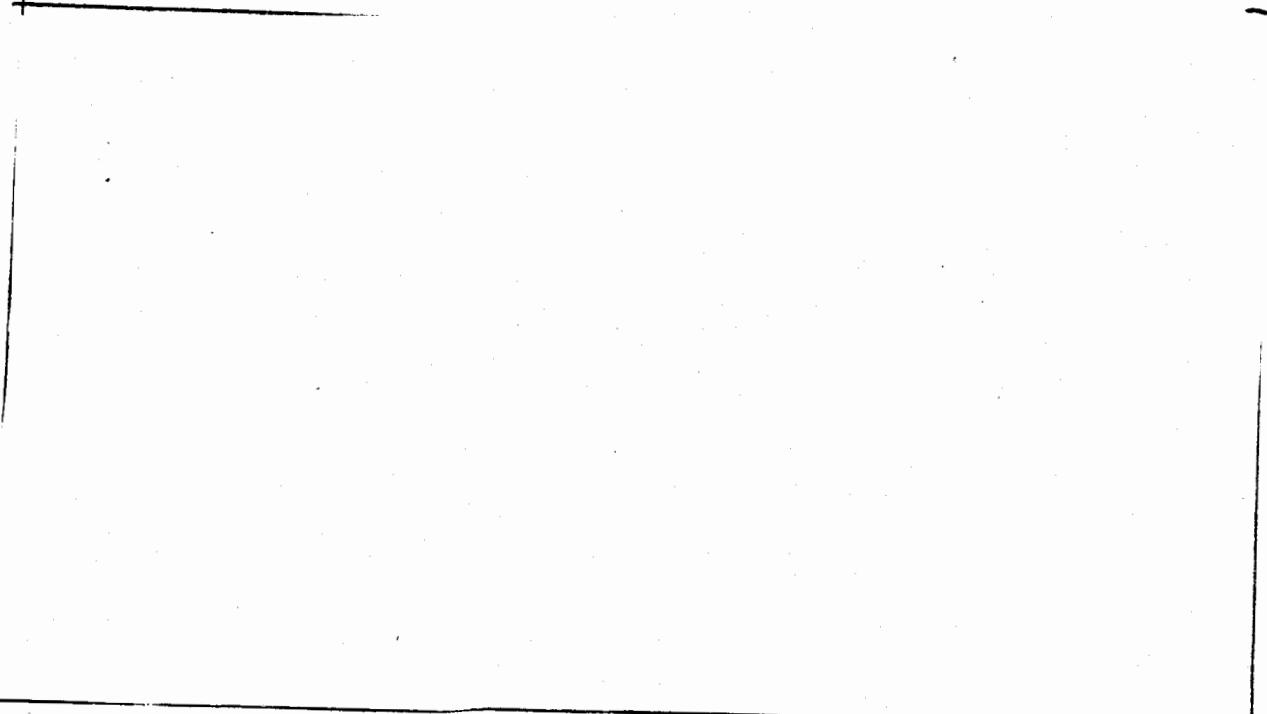
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e. SWAC Problem III calculations of de Hoffmann were discussed in section 5.3 of the 26th Minutes. de Hoffmann later reported the following correction:



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These calculations were carried out for the purpose of checking Bethe's formula.

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f. y and Z (defined in (d)) are plotted as functions of time in Figures 1 and 2 for Richtmyer's SEAC Problems 6.1 and 7.1. (See TM-58.)

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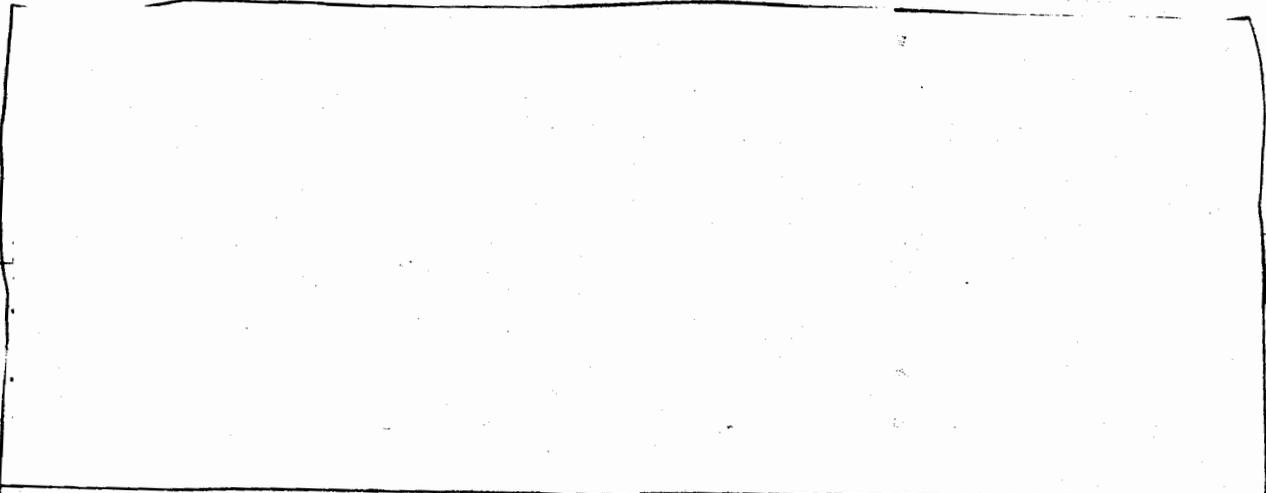
y and Z , for the density distribution assumed in the above calculations, are plotted as dashed lines in Figure 1 to compare with the SEAC values of Problem 6.1.

5. Radiation Flow.

5.1. For Early Times (Mark).

This was corrected for in part by Broyles and Freeman, who took into account the variations of mfp with time.

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5.2. Radiation Flow Calculation of Broyles and Freeman.

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Future calculations will be carried out for (i) a different mfp prescription, and (ii) an mfp as short as could be expected to occur.

In previous calculations there was an error made in the flux which was too large by a factor 1.4.

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Mr. HOLLOWAY remarked that this would cause no pain but that present design would not include it.

R. W. Goranson
R. W. Goranson

Distribution - See next page.

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- 6A - S. W. Burriss
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