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FAMILY COMMITTEE
Minutes of Twenty-First Meeting
August 26, 1950

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A. Attendance.

The twenty-first meeting of the Family Committee was held Saturday, August 26, 1950 at 9:00 A.M. in Room B-117. Those present were:

N. E. Bradbury	E. R. Jette
J. C. Clark	M. H. Johnson
F. de Hoffmann	D. P. MacDougall
E. Fermi	R. D. Richtmyer
D. K. Froman	R. W. Spence
R. W. Goranson	E. Teller, Chairman
D. B. Hall	F. Walters
E. Krause	J. A. Wheeler
M. G. Holloway	C. V. Strain

B. Minutes of the Twentieth Meeting.

The Committee unanimously adopted the minutes of the Twentieth Meeting reported in ADWD-176 with the following correction: DOE b(3)

[redacted]

C. DINEX vs. GANEX.

Dave Hall reported that a meeting on the subject had been held with the NRL group all of Friday, August 25th. These discussions led to the feeling that basically DINEX and GANEX had the same chance of yielding information on the time dependence [redacted] DOE b(3)

There seemed to be weight given to two points in favor of GANEX. The first one of these concerned itself with the fact that the DINEX shield, as previously noted in these minutes, gives rise to interference with experiments such as ball of fire, TENEX, PHONEX and ANEX (up to recently no alternative to DINEX was available so that this interference had to be tolerated; now one is in a position of minimizing this interference in replacing DINEX by GANEX). The second point concerned itself with the feeling that the radio-chemistry would suffer appreciably due to the great amount of lead present in the DINEX shield (this point was cleared up during the course of the present meeting and is discussed further on in these minutes).

DEPARTMENT OF ENERGY DECLASSIFICATION REVIEW
1ST REVIEW-DATE: 8-19-97
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2ND REVIEW-DATE: 9/4/97
AUTHORITY: ADD
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DETERMINATION [CIRCLE NUMBER(S)]
1. CLASSIFICATION RETAINED
2. CLASSIFICATION CHANGED TO:
3. CONTAINS NO DOE CLASSIFIED INFO
4. COORDINATE WITH:
5. CLASSIFICATION CANCELLED
6. CLASSIFIED INFO BRACKETED
7. OTHER (SPECIFIED)

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In view of the Friday meeting, Hall submitted a possible program for discussion:

1. DINEX effort continued but is cut back to the extent that parts dealing with insuring energy level measurement such as absorber-scatterer measurements are eliminated.

2. GANEX be engineered.

3. At the earliest possible time but not later than January 1, 1951, decide on either GANEX or DINEX but decide at once that no combination of the two should be used.

Considerable discussion ensued concerning this proposal. Krause raised the point that one of the difficulties in successfully planning any program was that connected with the uncertainty of what kind of gadget would be shot.

DOE b(3

Rod Spence was asked to join the group at this point to evaluate the difficulties the DINEX shield would present with respect to the radiochemical program. He was able to report that the difficulties would not be as great as anticipated. In particular, it has now been established that the filter papers would not be clogged--rather the difficulty would arise from the amount of tungsten and uranium contained as impurities in the approximately 500 tons of lead required for DINEX. Spence hopes that it will be possible without too much difficulty to analyze representative samples of the lead used for uranium and tungsten and make appropriate corrections. While this will lower slightly the accuracy of the radiochemical method, it is not believed that this would be a sufficiently strong argument against the use of DINEX.

Krause suggested that it may be advisable to carry on a program which would result in a shot with a cut back DINEX and GANEX (where GANEX also would be kept to its essentials, that is for instance, one would not indulge in the luxury of measuring fission neutrons by GANEX). In this case, the logistic effort would be planned such that DINEX and GANEX jointly would not exceed the logistic effort of the full scale DINEX alone. Clark reported that from the point of view of J Division, it would be acceptable to plan for either DINEX alone, GANEX alone or a combination in the manner just indicated.

J Division could hold up on the decision to build a limonite column for DINEX as late as November 1, 1950. On the other hand, arrangements for the 200 ton tower should probably be made immediately.

Wheeler emphasized that the NRL group should be given as much freedom of decision as possible in view of the fact that they are the group that will actually have to take the experimental responsibility for the success of the experiment. The group strongly supported this view. Fermi expressed the view that possibly the instrumentation of both DINEX and GANEX might lead to too much effort being put into these experiments but agreed that this depended to a large extent on how much NRL itself felt it could carry. Holloway dissented strongly from the majority view and thought that it was too late to introduce a new experiment such as GANEX into the schedule and that one would have to have strong reasons forcing one to include GANEX. He would think it preferable if DINEX were to be instrumented to completion now and the schedule adhered to.

[redacted] DOE b(2) Probably the ball of fire would be most strongly affected and TENEX least. In view of the possibility of replacing DINEX by GANEX, it was thus recommended that J Division re-examine the extent of interference of the DINEX shield, particularly because PHONEX and ANEX were currently thought of as rather valuable and simple experiments.

In view of this situation, the following summary was agreed upon:

1. The NRL group should have as much influence as possible in deciding questions of DINEX and GANEX.

2. Re-evaluation should be undertaken immediately concerning the interference of the DINEX shield with the ball of fire, ANEX, PHONEX and TENEX.

3. If this re-evaluation shows that the interference is very considerable, then it is believed NRL may want to concentrate on GANEX and carry along DINEX only as insurance if GANEX should show up flaws.

4. If this re-evaluation shows that the interference is either tolerable or can be circumvented by calibration methods and other experiments then the NRL group would try to reach a decision whether or not to carry on DINEX only, GANEX only, or a combination of the two requiring no more than the original logistic effort envisaged for DINEX.