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ATOMIC ENERGY COMMISSION

408445

MEETING NO. 1127

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2:30 p.m., Thursday, September 22, 1955

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REPOSITORY ANMA - College Park
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COLLECTION McCarty Minutes
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FOLDER Vol. 16 (2 of 2)
McCarty's 1123-1159

Present

W. F. Libby
Thomas E. Murray
John von Neumann

K. E. Fields
R. W. Cook
William Mitchell

W. B. McCool
John H. Stumpf

Also Present

Francis J. McCarthy
G. Norman Rogers
James A. Miller
Dr. Charles L. Dunham
W. Kenneth Davis
Lewis H. Roddis
Charles H. Reichardt
Col. Alfred D. Starbird
William K. Maher
Comdr. John W. Crawford
Manuel Dupkin

1. AEC 817/5 - Budget Estimates - FY 1957 (See minutes of Meetings 1125 and 1126)

a. 6000 Program - Biology and Medicine

In commenting generally on the Biology and Medicine estimates, Mr. Libby said he considered it important that the budget provide for the support of able persons and groups engaged in projects in which the AEC is interested and, second, that the Biology and Medicine budget should not provide for projects which would more appropriately be included in other programs. He discussed with Dr. Dunham the objectives of the

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Division's programs, especially the importance of off-site projects in stimulating research in the nation's graduate schools.

In response to any inquiry by Mr. von Neumann, Dr. Dunham reviewed the Division's program for the development of radiation instruments and discussed with the Commissioners a number of the current projects in this area. He also commented on the genetics program and confirmed that the AEC is supporting perhaps one-fourth to one-third of the nation's genetics research and probably three-quarters of the research on the genetics effects of radiation.

The Commissioners then considered proposed increases in the budget as compared with that of the present fiscal year. Upon being informed that the Atomic Bomb Casualty Commission would discontinue the examination of first generation live births, Mr. Libby suggested that this decision be reconsidered. Dr. Dunham said that he would ask the Advisory Committee for Biology and Medicine to comment on the question.

The budget estimates for Project Sunshine and for various cancer research projects were also reviewed, and the adequacy of the total estimates for the Biology and Medicine program was discussed. In response to a question by Mr. Libby, Dr. Dunham said that considering the talent available he believed that the budget would be sufficient to cover operating expense during the coming year. He observed that the loss of the fellowship program because of administrative problems resulting from the requirement to certify the loyalty of applicants had been a severe blow to efforts to encourage study and research in this field. The Commissioners discussed this problem at length and considered means by which the program might be restored.

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b. 3000 Program - Weapons (See minutes of Meeting 1125)

The Commissioners resumed their consideration of the budget estimates for this program, especially the question of whether adequate funds would be available for the expansion of weapons development facilities. Colonel Starbird reviewed in detail the factors which had been taken into consideration in preparing the estimates for this expansion.

Mr. Murray said that he was convinced that a second weapons development facility was necessary and that the Commission should be thinking of new contractors. He said also that he believed that steps should be taken as soon as possible to construct such a facility and arrange for its operation. He inquired whether any prospective operating contractors for a second facility were being considered. Colonel Starbird said that the matter had been discussed in a preliminary way with representatives of Livermore and Los Alamos.

Mr. Murray commented on the problems which he believed AEC would face in the next several years as a result of military requirements for new types of weapons. He indicated that he felt strongly that plans for a new and separate development facility should proceed at once, before the receipt of the DOD's statement of long-range requirements. Mr. von Neumann and Colonel Starbird commented on information already available concerning the DOD's interest in new weapons types and on the manner in which the long-term priorities for the developments of weapons will be stated. General Fields said that he did not wish to wait until after Operation REDWING to submit to the Commission a staff study of the manner in which weapons development facilities should be expanded; on the other hand the complexities of the problem would make it unlikely that the study could be completed very soon. He indicated that he was inclined to doubt that the selection of a new contractor would be desirable.

At this point Mr. Murray briefly left the meeting.

Mr. von Neumann discussed with Mr. Fields and Colonel Starbird the probable advantages and disadvantages of selecting a new contractor. Mr. Fields said that the Commission's decision on the budget estimates would not prejudice the ultimate decision on the course to be followed in expanding weapons development facilities. In response to a question by Mr. von Neumann he said he believed that the proposed budget would be sufficiently flexible to meet the requirements of an emergency situation.

Colonel Starbird said that the DOD had not indicated a preference for any single solution to the problem of additional facilities but was anxious that a solution be found.

At this point Mr. Murray re-entered the meeting.

In the course of a further discussion on the desirability of selecting a new contractor for a second facility, Mr. Murray said he believed that it would be a serious mistake to rely on an expansion of Sandia to meet the expected new requirements on schedule. He also indicated that he thought it would be unwise to make Sandia the operating contractor for a new facility and observed that the advantages of competition had always been a serious consideration in the Commission's consideration of such questions. Mr. Libby said that these advantages inclined him to favor selecting a second contractor.

It was agreed that in defending the budget estimates before the Bureau of the Budget it would be made clear that the course to be followed in expanding weapons development facilities had not yet been determined. The Commissioners indicated that the recommendations of the staff on this question should be submitted to the Commission as soon as possible,

With regard to the estimates for weapons test operations during FY 1957, Mr. Fields confirmed that continental tests on the scale of Operation TEAPOT had been assumed. This would not rule out the possibility of overseas test, however, none were now planned before the beginning of Calendar Year 1958.

Mr. Murray expressed concern about the schedule for future test operations and said he believed that tests should be conducted at least twice a year. He said that he had previously suggested the establishment of a second test organization as a means of accelerating test activities. He discussed at length with Mr. von Neumann, Mr. Libby and Mr. Fields the possible advantages of such an organization and the question of whether it would, in fact, accelerate weapons development. In the course of this discussion, Mr. von Neumann observed that while Pacific operations will probably continue to be major periodic expeditions, Nevada testing will tend to become more or less continuous. Mr. Fields said he believed that this would occur and that perhaps it should be encouraged. Mr. von Neumann also suggested that it would be desirable to encourage the DOD to undertake additional tests like Operation WIGWAM,

After further discussion of these and related subjects, the Commission concluded its consideration of the estimates for the Weapons Program.

c. 4000 Program - Reactor Development

Mr. von Neumann said that he wished to raise the question of whether the budget estimates for the several projects of the accelerated ANP program are appropriate. Specifically, he wished to know whether they would provide flexibility if it became necessary to provide for further acceleration of one or more of the projects, perhaps at the expense of others. He observed that many of the questions concerning the rate and scale of the program and the emphasis to be assigned to the projects must be