

INTER-COMPANY CORRESPONDENCE

COMPANY CARBIDE AND CARBON CHEMICALS COMPANY **LOCATION** Post Office Box P OAK RIDGE, TENN.

TO Mr. F. C. Uffelman *V12RG*
LOCATION Bldg. 9706-1A

DATE December 22, 1953

ATTENTION
COPY TO Mr. L. B. Emler *Moore, Murray*
Mr. G. W. Flack
File ✓

ANSWERING LETTER DATE

SUBJECT Request for Research Issuance
of SF Material

Reference is made to my memoranda to you on the subject of the issuance and accountability of uranium used in the cooperative study with Massachusetts General Hospital dated December 7, 1953 and December 21, 1953 and our private communications on the same subject. The purpose of this memo is to inform you more fully of the facts concerning this project and to request your services and advice concerning a proposed change in the method of handling this material.

I propose that I be granted a research issuance of normal uranium, product level uranium, and uranium 233 and that I be held accountable for its disposition within the limits imposed by standard accountability procedures in amounts necessary to complete the Boston study. I make this proposal for a number of reasons:

1. Dr. William H. Sweet and his associates, never having handled fissionable materials before, are not familiar with the requirements and are ill equipped to comply with these requirements. I have Dr. Sweet's acknowledgement of this fact and he has agreed that it would improve the situation if I were set up as the responsible accountant.

2. Dr. Sweet and associates are unable to specify the given amounts of uranium required to complete the study at this time. He is certain that less than 500 mg of total uranium will be required, but, how much less, he is unable to determine beforehand. To a large extent, this will be determined by the success or failure of results obtained in the first few injections. This being the case, it is impossible to specify the exact quantities to be requested for issuance to him. It turns out that the amounts authorized as a result of Mr. Emler's letter to the Atomic Energy Commission on October 5, 1953 are not realistic.

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Human Studies Project

REPOSITORY MMES / X-7c

COLLECTION Health Sci Research Div

BOX No 1000 Commerce Park

FILE NO 1000-253

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3. Dr. Sweet and associates are planning a few uranium 235 injections for reasons of the real objective of this work, viz., the possible use of enriched uranium in the treatment of brain tumors. These few injections will be carried out while the patient is in the operating room so that serial biopsy of normal brain and tumorous brain will permit them to determine the differential uptake in these tissues, which is important in the proposed treatment. They are relying on this department to aid them in this phase of the study. Again, it is impossible for Dr. Sweet to specify the required amounts of product level uranium.

If this proposal is accepted and a research issuance to me is authorized, I should like to have the following materials included:

100 mg of normal uranium. Include in this the 0.050 grams of normal uranium transferred to me by letter from L. A. Stephens to C. L. Pigott dated November 27, 1953.

50 mg of uranium 233. Include in this the 0.025 grams of U^{233} transferred to me by letter from L. A. Stephens to C. L. Pigott dated November 27, 1953.

500 mg of product level uranium.

The specifications for preparation of the solutions containing this uranium will be submitted to Mr. F. E. Clark. These amounts are calculated to more than satisfy the demands of Dr. Sweet. It is felt that we need to maintain a surplus of stock solutions here in this department for reference purposes in connection with the analytical work. If more information is required to evaluate this proposal, please feel free to call on me. Thanks,


Edw. G. Strunness
Health Physics Department

EGS:as

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