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### LETTER TO CHAIRMAN, JCAE ON UK GAS CENTRIFUGE

### Note by the Secretary

1. Commissioner Thompson has requested that his attached letter of August 8, 1969, to the Chairman, JCAE, with enclosure, be circulated for the information of the Commission.

2. The attached letter incorporates changes requested by the Commission at Information Meeting 937 on August 8, 1969 during consideration of AEC 610/183 - Discussions with the U.K.

W. B. McCool

Secretary

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UNITED STATES ATOMIC ENERGY COMMISSION WASHINGTON, D.C. 20545

AUG 8 1969

Honorable Chet Holifield Chairman Joint Committee on Atomic Energy Congress of the United States

Dear Mr. Holifield:

This will supplement the oral briefing which Paul Vanstrum, Edwin Babelay, Nelson Sievering and I provided to you and other members of the Joint Committee on August 1, 1969 about our recent firsthand examination of the gas centrifuge machine that the U.K. proposes to utilize in the tripartite European venture.

Our visit confirmed the fact that the British had been completely candid in their earlier written description of the machine, as set forth in their Aide-Memoire (and the accompanying Annex) of July 3, 1969. The actual inspection of the machine again bore out that the U.K. plans to proceed with a machine which, as compared with our own advanced machines, reflects a relatively unadvanced state of the art.

Physical examination of the U.K.'s production model also confirmed their earlier advice that the bottom endcap resembles the cap used on AEC's 6" machine which the U.K. scientists saw during the 1960-65 exchange. The U.K. readily concedes that they benefited from the exchange. They maintain, however, that the end-cap is not so unique that it or some variation of it would not have been developed in due course from the application of generally recognized engineering principles. (Although the British do not know it, the end-cap in question is no longer used in the advanced AEC machines.)

The 1955 Agreement, like all our agreements for cooperation, contains no mutually agreed upon mechanism for disposing of different views. Where a difference of view exists as it does here with respect to whether or not the information incorporated in the end-cap is subject to the Article IX.C. restrictions against disclosure to third parties, the parties may consult and negotiate as they have

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since last December; but the Agreement does not establish which party has the burden of satisfying the other.

Nevertheless the British have taken the initiative to resolve the differences. And, despite the fact that they are not legally obliged to, they have given the United States the opportunity to examine the precise technology in guestion; and the fact that visual access to their production machine confirmed their earlier written description of it, lends credibility to their stated desire to preserve the basis of mutual trust which underlies our several cooperative arrangements. Indicative of this attitude is the fact that during the course of our most recent visit, the British revealed a fail-safe braking device which might be of interest in our own program. In addition, the British have assured us of further opportunity to satisfy ourselves on the question of whether or not U.S. technology is involved in more advanced developments which the U.K. may consider providing to the Dutch and Germans in the future and which could be argued to be subject to Article IX.C.

Notwithstanding these considerations, we could elect to insist on a more restrictive view and formally object to revealing the bottom end-cap design to the Dutch and West Germans on the grounds that, in our view, it contains restricted data. In weighing the merits of such an approach, it is necessary to consider the possible advantages and disadvantages.

The main advantages would be an assertion of the principle that our consent is required for a broader range of information than the U.K. considers is necessary and that we might succeed in preventing the dissemination to the Dutch and the West Germans of what could be considered U.S. classified technology.

On the other hand, there is no assurance that the Dutch and the West Germans may not incorporate in their machines an end-cap of similar or improved design, in which event we would have accomplished little by objecting except to perturb our relations with the U.K. Moreover, if we were to force the U.K. to abandon the present end-cap design and adopt another, it would probably force them to abandon their entire effort on the Mark I machine. Our technical people at Oak Ridge believe strongly that any change from present design would almost certainly be in

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the direction of improved design. In this connection, as noted earlier, the AEC no longer utilizes the bottom endcap design in its current advanced machines. In brief, in view of the unadvanced state of the art represented by the U.K. current production model, it does not appear to be desirable to force them to a more advanced model earlier than their present schedules would seem to call for. Because of the substantial investment which the U.K. has in the Mark I machine they would probably stick with it for at least five years. From the standpoint of proliferation and potential competition with the U.S. in the foreign uranium market, there is some advantage to leaving things as they are.

There is the question of precedent, that is whether our failure to insist that the bottom end-cap involving data subject to Article IX.C. would be regarded by the U.K. as a precedent that would permit exchanging with third parties information received from the U.S. on nuclear weapons and nuclear submarine design. First, the U.K. has given flat assurance orally and in writing that there is no intention of exchanging such U.S. information with third parties and that, in any event, our consent would be an absolute condition precedent. Such an assurance is contained in the U.K. Aide Memoire of July 3, 1969, a copy of which has been furnished your committee. Secondly, since we have withheld a favorable response to the U.K. for nearly a year now and have been in almost continuous negotiations, the need for early and complete consultation has been unmistakably established. The U.K. is abundantly aware that the Commission and the Joint Committee will insist that all appropriate measures be taken to live up to agreements, to protect restricted data, and to avoid proliferation of nuclear weapons capability. In order, however, to ensure that there would be no doubt about our position we have reiterated it in our draft response to the U.K. Aide Memoire, copy enclosed,

A final consideration has to do with the Non-Proliferation Treaty. We should not wish to take a course of action which would be contrary to U.S. policy. U.S. policy attaches great importance to West German adherence to the NPT. The West Germans have been skittish about the question of whether or not the NPT would permit the development of an enriching capability for civilian nuclear power programs. Similar concerns have been raised by the Japanese and Australians. If it came to the attention of the West Germans that the U.S., while giving assurances to the West Germans

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on this point, was at the same time impeding the tripartite enriching venture, the effect on the German attitude toward the NPT could be deleterious. On the other hand, the United Kingdom was one of the three sponsors of the NPT and the first to sign and ratify the treaty. The U.K. considers adherence to the NPT by West Germans to be of utmost importance. We can therefore expect strong efforts by the U.K. to cause Germany to sign and honor the NPT. Meanwhile, pending the coming into effect of the NPT, it is the intention of the tripartite partners to adopt appropriate international safeguards.

For all of the foregoing reasons, the Commission believes that U.S. interests would best be served in this instance by not raising formal objection to the U.K.'s view that the information to be transmitted to the tripartite venture is not U.S. Restricted Data. The kind of sanctions that might be invoked to force the British to abandon their plans would seem more drastic than would seem to be warranted, bearing in mind the unadvanced state of the art of the British machine, the fact that the U.K. has given us access to its machine and has provided us with new information on its program beyond what the agreement originally provided for. Technically and politically we see little to be gained by such a tack, indeed we might not be able to prevent it anyway, and we stand to lose in terms of our overall relationships with the U.K. and could possibly complicate negotiations with the West Germans on the Non-Proliferation Treaty.

Attached is the U.S. proposed response to the U.K. Aide Memoire which expresses our concern and reservations but does not raise formal objections to the U.K. proceeding with the tripartite venture. If the Committee should have any questions, we should be glad to discuss the matter further.

Sincerely,

Theos J Thompson

Commissioner

Enclosure: Reply Aide-Memoire DOB ARCHIVES

#### REPLY AIDE-MEMOIRE

The U.S. has given extensive consideration to the British Embassy's Aide-Memoire of July 3, 1969 (and accompanying Annex) regarding the U.K.'s plans for collaboration with Germany and the Netherlands in the gas centrifuge area.

The U.S. appreciates having received the U.K. views as to the considerations that the U.K. feels warrants its participation in such a collaborative effort. The U.S. has taken particular note of the U.K. intentions regarding continuation of classification, imposition of security controls, restrictions against transfer to other countries, and multinational safeguards with a view to the early application of safeguards pursuant to the NPT. The U.S. recognizes that such U.K. participation would be in furtherance of policies and objectives supported by both countries.

The U.S. also appreciated the opportunity to have visual access to the present U.K. centrifuge machine thereby assuring that there is no room for misunderstandings as to the particulars of the technology involved. The U.S. likewise welcomed the U.K. assurance regarding access to possible U.K. contributions of certain advanced research and development data. Such efforts to resolve possible

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differences under the agreement demonstrate the kind of spirit which necessarily must underlie such cooperative arrangements to assure their continuing vitality.

The U.S. recognizes the difficulties that can arise " in attempting to determine the applicability of a provision like Article IX.C. of the Agreement to information in a program which is the outgrowth of an exchange concerned only with research and development efforts in a particular area. It does not, therefore, propose to raise an objection in this instance to the conclusion reached by the U.K. It, nevertheless, believes it is in the long-range mutual interest of the U.S. and the U.K. to take all possible steps to preclude the possibility of any further differences from arising in the future, particularly in connection with such special and sensitive exchange programs as those which involve nuclear weapons and submarines.

The U.S. has, therefore, taken special note of the assurances of the U.K. to the effect that its approach here resulting in the conclusion that certain centrifuge data is not subject to the retransfer restriction is in no sense a precedent to support a similar conclusion about any information conveyed in the exchanges on nuclear weapons and submarine programs which is subject to the Article VII restriction in the 1958 agreement as amended.

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