MEMORANDUM FOR CONTEXOLJE /M/J.

SUBJECT: Minuteman Warhead and Re-entry Vehicles

1. Since its initiation it has been our intention to provide two re-entry vehicles and two warheads in support of the requirements of the Minuteman System. These are differentiated as follows:

a. One vehicle with a total weight of 7,900 pounds including a 600 pound warhead for a range of 5,500 miles. The other vehicle weighing 3,000 pounds including a 300 pound warhead capable of a range up to 6,200 miles. As we understand the operational plan, the system will utilize complete target coverage in the southwest portion of the Country. Design of these vehicles will be optimized for maximum range without regard to possible employment at least range less than this and is the basis for the difference between the heavier vehicle weight in combination with the smaller warhead. During discussions in your office about the last of March, we were authorized to proceed on this basis in the establishment of warhead requirements and plans for re-entry vehicle selection.

2. Both the Phase I and II warhead feasibility studies have been completed. These have included consideration of the two different types of warheads. The Phase I study was authorized by DOD and particularly by letter from your hands to the AEC. The request for Phase III development of both warheads is now waiting your signature. RFQ's have been issued to a total of 10 contractors to cover the re-entry vehicle development program. These contractors are being asked to submit proposals covering either or both of the re-entry vehicles with the additional provision that their proposals shall be in such form that it would provide the basis for a contract for either or both.

3. There are several reasons which in our opinion make it imperative that we continue with the development of both vehicles. These relate principally to the warhead development itself. At the present time this Country is seriously concerned with the direction of this ongoing, the duration of this being somewhat indeterminate. For this reason, the AEC laboratories are endeavoring to carry out during the next several months tests which appear to them of importance in development of weapons for which requirements have been stated. At the same time the AEC is attempting to get acceptance by DOD of the concept of multi-use warheads. Under this concept which has been given favorable reception a weapon system requiring a warhead of particular weight will be forced to use an already available or planned weapon which in some instances will have as a developed for quite different requirements. In our case for example the smaller
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Warhead will be that now under development for Nike Zeus. Provided the Minuteman requirements are incorporated in the weapon design initially which can be done if we establish our need for this weapon, there will be no difficulty in obtaining maximum performance of the system (the same is not true in the case of the 600 pound Polaris warhead which must be modified to a considerable degree to meet the Minuteman requirements.) If on the other hand we do not today establish a firm requirement for the second, lighter warhead it will be designed on the basis of Nike Zeus requirements and will be completely incompatible with the Minuteman system in the event that we choose to use the second re-entry vehicle at some later date.

4. We feel emphatically that development must continue now on both warheads and hence both re-entry vehicles since a requirement for one cannot be established without the other. Until recently we had assumed that this was consistent with the requirements of WS-153A. It is our understanding however that there is under discussion now in the interest of reducing the budget a plan to delay one of the re-entry vehicles by some period such as two years. Since our primary responsibility is to support the system requirements we request immediate clarification of this.

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