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September 17, 1953

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ATOMIC ENERGY COMMISSION

REPORT TO JCAE ON THERMONUCLEAR WEAPONS PROGRAM

Note by the Secretary

The attached letter to the Chairman, MLC, is circulated for the information of the Commission.

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ROY B. SNAPP
Secretary

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UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D. C.

September 15, 1953

Honorable Robert LeBaron
Chairman, Military Liaison Committee
to the Atomic Energy Commission

Dear Mr. LeBaron:

The letter* which you recently delivered to me, signed by Mr. Wilson to the Joint Chiefs of Staff, in regard to Mr. Cole's inquiry on the thermonuclear weapon program, prompts me to raise certain questions in relation thereto. You will recall that Mr. Wilson's instructions to the Joint Chiefs were to advise him of the possible requirement for thermonuclear weapons for the period up to January 1, 1957. He then proposed that these requirements be computed in terms of requirements for materials for transmission to the Joint Committee on Atomic Energy rather than in terms of numbers of weapons. It is understood that preliminary numerical requirements for thermonuclear weapons in terms of multi-megaton energy releases can be developed for the purpose of Mr. Cole's inquiry.**DOE ARCHIVES

As you know, design criteria for the emergency capability weapons are still fluid and subject to continuous change as the studies at the Los Alamos Laboratory develop. The requirements for tritium, lithium-6 amounts and concentrations, boron-10 and other critical materials have not yet been established firmly. The accelerated time schedule for development and the limited time allowed to respond to Mr. Cole's inquiry make it impracticable to keep the DOD immediately informed of changes in design criteria as they occur. Therefore, it would seem appropriate for the Commission to translate the Joint Chiefs of Staff requirements for weapons into the material requirements as they may be estimated best at the time and to determine the costs and fund requirements for capital construction on any new facilities necessary to fulfill the numerical requirements of the Joint Chiefs of Staff.

In view of the preliminary nature of both the numerical requirements for thermonuclear weapons and the material require-

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ments resulting therefrom, may I suggest the following procedure. The Secretary of Defense furnish to the Commission weapon requirements based upon alternative assumptions concerning the CASTLE test series and notify Mr. Cole of this action.

The Commission will then translate these requirements into estimated material requirements and report to Mr. Cole the anticipated dollar costs needed to fulfill the Department of Defense requirements.

I shall be happy to discuss this further with you if you desire. In view of the short time remaining to prepare the studies required, may we expect early consideration of this suggestion?

Sincerely yours,

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Lewis L. Strauss
Chairman