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UNITED STATES

ATOMIC ENERGY COMMISSION
WASHINGTON 25, D. C.

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February 14, 1963

MEMORANDUM FOR MR. BUNDY ←

Attached is one copy each of the following papers that are being distributed as part of the current nuclear test ban activities:

- (1) A paper entitled US/USSR Weapons Capabilities as Related to Possible Nuclear Test Ban Situations which is the responsibility of Pete Scoville, Jerry Johnson, and me. It is understood that this paper is a contribution of the three individuals and not their agencies.
- (2) An AEC paper on test readiness.

Leland

Leland J. Haworth
Commissioner

Honorable McGeorge Bundy
Special Assistant to the
President
The White House

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Attachments:

- 1. LII-78-5B
OA-LII-79-23A (att to LII-78)
- 2. Cy 4C S-DI paper on Maintenance of a Condition ...^{AS}

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EO 12356, Sec. 3.4
NLK-93-93-3
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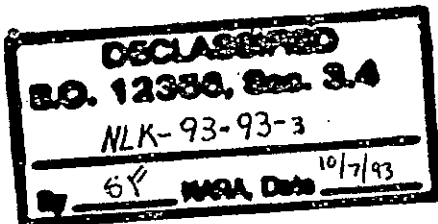
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MAINTENANCE OF A CONDITION OF READINESS UNDER A TEST BAN TREATY

The importance of maintaining a state of readiness, under a test ban treaty, to resume nuclear testing is discussed in the section on "Effect of Treaty Abrogation." The treaty should allow the United States to maintain a state of readiness so that we would not again be caught as unprepared as was the case in the fall of 1961. It would be necessary that the existence of this state of readiness be known, accepted, and perhaps encouraged, by the American public. In fact, the knowledge that we were maintaining such a state of readiness might in itself be one of the factors that would make a test ban treaty more acceptable to the American public. Such a state of readiness might be considered analogous to military training activities, which have always been accepted as a normal peacetime function.

Perhaps the most important means of obtaining test readiness is through the maintenance of strong weapons laboratories. This requires an understanding by the management and the scientists in the laboratories that it is national policy to encourage the work of the laboratories in every way possible. This requires public expression of this attitude at the highest levels in Government, as well as adequate budgetary support. The retention of the best people and recruitment of good young people, in the face of competition from the space program and other programs, will present a serious problem. This problem will be difficult to overcome



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if the work continues to be housed in temporary buildings and to be supported by inadequate equipment. Budgetary support for an adequate staff and adequate buildings and equipment will be essential. This will mean that the operating budgets for the two weapons laboratories, Los Alamos and Livermore, would have to be maintained at something of the order of their present level, and there would have to be some additional building construction and equipment procurement.

The status of the weapons effects work presents a special problem. It would probably be necessary to build up a third weapons laboratory to specialize in readiness for weapons effects testing. Continuous study of the problems of weapons vulnerability, weapons penetration capability and anti-weapons measures could be one of the functions of such a laboratory.

Another important aspect of test readiness would be the authorization for the conduct of experiments up to the explosive level specified by the treaty. A definition, allowing nuclear experiments up to one or more tons of yield, would allow the study of many scientific factors underlying nuclear weapons, would give the laboratories an important outlet for their work and would be within the spirit of a weapons test ban because it is below the threshold of direct weapons application.

Important to readiness would be the maintenance of an underground testing capability at the Nevada Test Site. Thus, a number of tunnels and holes should be available, together with the attendant electrical and other equipment and instrumentation which would be required to resume testing. This would require adequate budgetary support, perhaps of the order of 10 to 15 million dollars per year.

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Also important would be the maintenance of facilities for off-continent atmospheric testing. This would require preparatory work, probably at both Christmas Island and Johnston Island. Required at Christmas Island would be the preparation of a better air strip, improvement of seaport facilities, improvement of roads, the building of missile-launch facilities, etc. Similar improvements at Johnston Island, including possible enlargement of the Island by dredging, might be necessary. An extension of the agreement with the United Kingdom for the use of Christmas Island, perhaps including less restrictive conditions, would be needed. A caretaker, maintenance and readiness force would be required. In addition, it would be necessary to maintain the required aircraft with their diagnostic and other instrumentation. It is difficult to estimate the cost of this phase of a readiness program, but the cost of maintaining a task force at Christmas Island might be of the order of 5 million dollars per year, the cost of upgrading Christmas Island and Johnston Island might be of the order of 25 million dollars for each, and the cost of the aircraft would be additional.

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