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ATOMIC ENERGY COMMISSION

WASHINGTON 25, D.C.

October 19, 1961

PERSONAL AND

Dear Mr. President:

Since I will be away from the city for the next several days -- to visit the Nevada Test Site and to fulfill some long-standing speaking engagements -- I would like to enticipate by a few days my usual biweekly report to you which would normally be submitted to you on Tuesday next.

Meeting with Wespons Laboratory Directors:

On Tuesday, October 17, the Commission spent the full day with its Laboratory Directors from Livermore and Los Alamos, and the President of the Sandia Corporation at Albuquerque, for the purposes of reviewing our test program to date, of discussing the relative advantages and disadvantages of conducting tests in the atmosphere, and to review requirements for preparations for atmospheric testing, should you find it to be in the national interest to authorize them. It was a most useful session. I think that you would be interested in a very brief summary of the impressions we received.

Atmospheric Testing Should be Resumed:

First, there was unanimity among the Laboratory Directors that, in the absence of a test ban treaty with effective controls, and in light of the size and scope of the present Soviet series, and the technical needs for important information, the United States should resume testing in the atmosphere. It is clear that there is no way to accelerate our present weapons testing program substantially without testing in the atmosphere. While techniques for underground testing can be improved -- and should be -- the cost in time and funds to excavate, prepare, maintain, use and decontaminate underground facilities is large in comparison with atmospheric testing. In addition, underground testing is not suitable for tests of certain weapons systems, for many simulated effects tests, and for proof tests of certain stockpile weapons.

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Underground Testing Should Continue:

I should like to stress, however, if atmospheric testing were to be resumed, the Commission and the Laboratory Directors feel, nevertheless, that underground testing should be continued. This is important for several reasons: First, there is always the pessibility -however remote -- that agreement might be reached with the Soviet Union to ban those tests in environments which can be affectively monitored (i.e., atmospheric tests). In such an event we might wish to continue our developmental testing program in the underground. Secondly, underground tests are not affected by adverse weather conditions to the same extent as atmospheric tests and thus certain tests can be conducted with greater schedule reliability than if conducted in the atmosphere. Also, underground tests can be used to contribute seingle and Plowshare data. It is important, therefore, to continue our underground program consurrently with atmospheric testing and to improve our techniques for testing in that medium, despite the limitations, e.g., size of device, etc.

Atmospheric Tests Initially in Pacific:

Another interesting conclusion of our meeting with the Laboratory Directors was that, initially, atmospheric tests should be conducted by air drep in the Facilia. If this is for the reason that weather conditions at the Revada Test Site in the weeks and menths immediately ahead would result in many delays in order to avoid or reduce fallout in populated areas near the Nevada Test Site. I heaten to add, however, that this does not meen that so atmospheric tests would be conducted at Nevada; some (probably balloon shots) would be held there -- particularly next Spring and Summer when weather conditions improve.

Limitation on Total Fission Yields

The Commission believes that it is especial that some limitations attach to the proposed etmospheric testing program. For example, we think that in the interest of reducing the total amount of radioactive fallout that would be introduced into the atmosphere, some limitation — say, for example, — of total fission yield — should be placed on the first

^{1/} Johnston Island and Christmas Island areas are being considered.

atmospheric test series. This would also have the merit, in our judgment, of tending to assure that only essential devices were tested. There would be political advantages as well.

Proof Testing:

Insofar as proof testing is concerned, we believe that, while there may be need to test certain fairly large yield strategic devices, there is a relatively greater need to test tactical nuclear weapons and tactical weapons systems. The reasons are twofold: One, that the need for precision in yield is greater where tactical weapons are involved; and two, the human element of experience and error would appear to be more critical in connection with their use and delivery.

Strategy -- First Atmospheric Test:

Today, October 19, I met with the General Advisory
Counittee to the Atomic Energy Counisation. They raised
an interesting point that I thought I should call to
your attention. They suggest that it might be desirable
for the U.S. to make its first atmospheric test -- in
this case, probably a proof test by the air drop method
in the Pacific -- before the Russians and their test
series. They feel this might be better then starting
atmospheric testing after the Russians had stopped when
the reaction and pressures against it might be much more
severe.

In the event that you should went to consider this possibility, you should know that such a test would require an advence notice of some 8 to 10 days, principally in order to be sure that the eres in the Pacific was cleared of ships before the time of the test.

"Most The Press" -- T.V. Interview -- October 29:

May I now advert to a new subject. I have accepted a long-standing request (first made shortly after I assumed affice) to appear an "Heat The Press." I had postponed acceptance for many mouths -- twice in recent weeks: first, to avoid appearing just prior to and in connection with our resumption of tests in the underground; and secondly, in order not to become involved in the testing issue immediately prior to my arrival in Vienna on a "peaceful uses" mission. I felt

reasonably safe as of September 23 in agreeing to appear on Sunday, October 29. Ironically, then, on Tuesday last came Frenier Khrushchev's amountement of plans to detonate a 50 magaton device on October 21. Accordingly, I enticipate a number of questions in this area. I shall, of course, be guided by the statement released by the White House on Tuesday concerning the 50 magaton test by the Soviets.

Respectfully submitted,

(Signed) Glenn T. Seaborg

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