

Letter to President Harry S Truman
Lewis Strauss, Chairman of the Atomic Energy Commission
November 25, 1949

Dear Mr. President,

As you know, the thermonuclear (super) bomb was suggested by scientists working at Los Alamos during the war. The current consideration of the super bomb was precipitated, I believe, by a memorandum which I addressed to my fellow Commissioners following your announcement on September 23rd of an atomic explosion in Russia. I participated in the discussions which were antecedent to the letter to you from the Commission on November 9th, but did not join in the preparation of the letter as I was then on the Pacific Coast. It was my belief that a comprehensive recommendation should be provided for you, embodying the judgement of the Commission (in the areas where it is competent), together with the views of the Departments of State and Defense. My colleagues, however, felt that you would prefer to obtain these views separately.

Difference on the broad question of policy between my associates as individuals were included in the Commission's letter to you, and it was correctly stated that the views of Commissioner Dean and mine were in substantial accord on the main issue. It is proper, I believe, that I should state them on my own responsibility, and in my own words.

I believe that the United States must be as completely armed as any possible enemy. From this, it follows that I believe it unwise to renounce, unilaterally, any weapon which an enemy can reasonably be expected to possess. I recommend that the President direct the Atomic Energy Commission to proceed with the development of the thermonuclear bomb, at highest priority subject only to the judgement of the Department of Defense as to its value as a weapon, and of the advice of the Department of State as to the diplomatic consequences of its unilateral renunciation or its possession. In the event that you may be interested, my reasoning is appended in a memorandum.

Lewis L. Strauss

25 November 1949

This is a memorandum to accompany a letter of even date to the President to supply the reasoning for my recommendation that he should direct the Atomic Energy Commission to proceed at highest priority with the development of the thermonuclear weapon.

PREMISES

(1) The production of such a weapon appears to be feasible (i.e., better than a 50-50 chance).

(2) Recent accomplishments by the Russians indicate that the production of a thermonuclear weapon is within their technical competence.

(3) A government of atheists is not likely to be dissuaded from producing the weapon on "moral" grounds. ("Reason and experience both forbid us to expect that national morality can prevail in exclusion of religious principle" G. Washington, September 17, 1796).

(4) The possibility of producing the thermonuclear weapon was suggested more than six years ago, and considerable theoretical work which may be known to the Soviets -- the principle has certainly been known to them.

(5) The time in which the development of this weapon can be perfected is perhaps of the order of two years, so that a Russian enterprise started some years ago may be well along to completion.

(6) It is the historic policy of the United States not to have its forces less well armed than those of any other country (viz., the 5:3:3 naval ratio, etc., etc.)

(7) Unlike the atomic bomb which has certain limitations, the proposed weapon may be tactically employed against a mobilized army over an area of the size ordinarily occupied by such a force.

(8) The Commission's letter of November 9th to the President mentioned the "possibility that the radioactivity released by a small number (perhaps ten) of these bombs would pollute the earth's atmosphere to a dangerous extent." Studies requested by the Commission have since indicated that the number of such weapons necessary to pollute the earth's atmosphere would run into many hundreds. Atmospheric pollution is a consequence of present atomic bombs if used in quantity.

CONCLUSIONS

(1) The danger in the weapon does not reside in its physical nature but in human behavior. Its unilateral renunciation by the United States could very easily result in its unilateral possession by the Soviet Government. I am unable to see any satisfaction in that prospect.

(2) The Atomic Energy Commission is competent to advise the President with respect to the feasibility of making the weapon; its economy in fissionable material as compared with atomic bombs; the possible time factor involved; and a description of its characteristics as compared with atomic bombs. Judgment, however, as to its strategic or tactical for the armed forces should be furnished by the Department of Defense, and views as to the effects on friendly nations or on unilateral renunciation of the weapon is a subject for the Department of State. My opinion as an individual, however, based upon discussion with military experts is to the effect that the weapon may be critically useful against a large enemy force both as a weapon of offense and as a defensive measure to prevent landings on our own shores.

(3) I am impressed with the arguments which have been made to the effect that this is a weapon of mass destruction on an unprecedented scale. So, however, was the atomic bomb when it was first envisaged and when the National Academy of Sciences in its report of November 6, 1941, referred to it as "of superlatively destructive power." Also, on June 16, 1945, the Scientific Panel of the Interim Committee on Nuclear Power, comprising some of the present members of the General Advisory Committee, reported to the Secretary of War, "We believe that the subject of thermonuclear reactions among light nuclei is one of the most important that needs study. There is a reasonable presumption that with skillful research and development, fission bombs can be used to initiate the reactions of deuterium, tritium, and possibly other light nuclei. If this can be accomplished, the energy release of explosive units can be increased by a factor of 1000 or more over that of presently contemplated fission bombs." This statement was preceded by the recommendation, "Certainly we would wish to see work carried out on the problems mentioned below."

(4) Obviously the current atomic bomb as well as the proposed thermonuclear weapon are horrible to contemplate. All war is horrible. Until, however, some means is found of eliminating war, I cannot agree with those of my colleagues who feel that an announcement should be made by the President to the effect that the development of the thermonuclear weapon will not be undertaken by the United States at this time. This is because: (a) I do not think the statement will be credited in the Kremlin; (b) that when and if it should be decided subsequent to such a statement to proceed with the production of the thermonuclear bomb, it might in a delicate situation, be regarded as an affirmative statement of hostile intent; and (c) because primarily until disarmament is universal, our arsenal must not be less well equipped than with the most potent weapons that our technology can devise.

RECOMMENDATION

In sum, I believe that the President should direct the Atomic Energy Commission to proceed with all possible expedition to develop the thermonuclear weapon.