A SACRED TRUST: THE FORMATION OF U. S. PUBLIC POLICY ON ATOMIC ENERGY, 1945–1946*

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SUMMARY

The 1946 Acheson-Lilienthal Report, a working paper for official policy makers compiled by a committee headed by Under Secretary of State Dean Acheson, with the assistance of a Board of Consultants chaired by David E. Lilienthal, chairman of the Tennessee Valley Authority, was the first major written attempt at U.S. public policy formation after World War II. It was adopted as the basis for the 1946 U.S. proposals on the control of atomic energy, known as the Baruch Plan, in which Bernard M. Baruch, the U.S. Representative to the United Nations Atomic Energy Commission added a series of measures to the idea of a world atomic energy development authority.

This paper is an attempt to analyze certain institutional and political factors that underlay the U.S. policy formation in the context of U.S. foreign relations, as well as the conceptual and policy framework that characterized the Acheson-Lilienthal Report and the Baruch Plan.

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Prologue

After the defeat of Japan, the world must have wondered and closely watched what proposals the U.S. would make on the future of atomic energy, after its destructive power had been demonstrated in the bombing of Hiroshima and Nagasaki, highlighting the unique position of the U.S. in holding a monopoly of the atomic bomb. Of problems raised among the victorious allied nations by the ending of World War II, atomic energy turned out to be the most salient one as it came on to the world scene all of a sudden, with neither formal overtures nor specific blueprints offered by way of a solution. The way it was handled would have a tremendous politico-military impact on the relations of nations. Following his declaration that the U.S. had to find an answer to this problem "in partnership with all the peoples of the United Nations," President Truman first consulted with Great Britain and Canada in a Washington conference in November 1945. On that basis, the Governments of Great Britain, the U.S. and the U.S.S.R., in a Moscow conference of foreign ministers in December 1945, cleared the way toward the establishment of a United Nations Atomic Energy Commission. [1)]

The Truman administration in January 1946 set about working out a

public policy on the international control of atomic energy, which resulted in the Acheson-Lilienthal Report, a working paper for official policy makers compiled by a committee headed by Under Secretary of State Dean Acheson, with the assistance of a Board of Consultants chaired by David E. Lilienthal, Chairman of the Tennessee Valley Authority, 1941–46. This report was a mixture of novel ideas for a world atomic energy development authority and U.S. national interests. It constituted the basis for the U.S. proposals on the control of atomic energy, which came to be known as the Baruch Plan after Bernard M. Baruch, a Wall Street financier and advisor to Presidents through to Franklin D. Roosevelt. When it was tabled at the United Nations in 1946, however, the Baruch Plan was found to have been discolored by a series of measures that departed from the original novelty of the Acheson-Lilienthal Report, and favored U.S. national interests. [2)]

U.S. atomic energy policy formation seemed to have been underscored primarily by certain key institutional and political factors which, among others, included: First, the wartime Manhattan Project for the development and manufacture of atomic bombs and its culmination in the destruction of the two Japanese cities, and the continued development and production of such bombs. Second, the position the U.S. occupied in the postwar world and the role it bestowed on the atomic bomb in handling its international relations. Third, the domestic controversies that developed in this context over the future of atomic energy.

In this paper, the author addresses the question of how these interrelated factors were involved in the formation of U.S. public policy on atomic energy during the period from the end of World War II, August 1945, to the first meeting of the United Nations Atomic Energy Commission in New York in June 1946.

I. The legacy of the Manhattan Project

In the wake of Hiroshima and just prior to Nagasaki, President Truman in a national address declared: "We must constitute ourselves trustees of this new force," the atomic bomb. [3)] Two months later, Truman asked Congress to take immediate action on both the domestic and international fronts to

ensure that atomic energy, "a new force too revolutionary to consider in the framework of old ideas," would be used not for destruction but for the future welfare of humanity. The President declared that the formation of domestic policy for the development, utilization, and control of atomic energy within the U.S. was most urgent, and announced that he would seek Congressional legislation to establish an Atomic Energy Commission. Discussion of global atomic problems could not safely be delayed until the United Nations Organization would be functioning and in a position adequately to deal with it, Truman declared, and he therefore proposed to initiate substantive discussions with Great Britain and Canada, and then with other nations. He emphasized that the atomic bomb manufacturing process would not be disclosed in these discussions. In a late October foreign policy speech, Truman declared that the U.S. possession of the atomic bomb was "a sacred trust," posing "no threat to any nation." [4]

I. 1 The atomic bomb as a policy instrument

British Prime Minister Clement R. Attlee and Canadian Prime Minister Mackenzie King were scheduled to arrive in Washington in November 1945 for talks on renewing their wartime collaboration in the atomic weapon development, but Secretary of State James Byrnes and his aides were unprepared. Byrnes turned at short notice to Vannevar Bush, Director of the Office of Scientific Research and Development (OSRD) and wartime Chairman of the Military Policy Committee which served as a sort of board of directors for the Manhattan Engineer District. Bush took advantage of this opportunity to outline his plan for international control, a scheme he had formulated during the war and had raised unsuccessfully more than once with Secretary of War Henry L. Stimson. [5]

Bush concentrated on the Roosevelt-Churchill Ouebec Agreement of 19 August 1943 and on approaches to the Soviet Union. He advised that the bilateral Ouebec agreement be superseded by a "simple one" providing only for the sharing of atomic source materials, and that its other arrangements for the exchange of information and for political consultation should be worked out on a more general international basis. It was important for

the U.S. to make an overture to the Soviet Union before a venue was set up in the UN for the subject of atomic energy. Bush argued that agreements with the Soviet Union could be reached if the difficulties arising from the "secretive and suspicious" nature of the Soviets could be overcome. The solution Bush suggested was to make agreements in such a way that it would be "in Russia's interest to keep them." This process involved proceeding on a step by step basis of "partial payments," facing the Soviet Union at each stage with clear alternatives. Either it would genuinely conform, he wrote, or its failure to do so would become known to world public opinion, which would "become arrayed against her." His basic assumption was that the U.S. program should be "realistic at every step." It shoul not involve any premature, dangerous "outlawing of the bomb." Specifically, Bush called for (1) creation by the UN General Assembly of "a scientific body" for the full dissemination of basic information in all fields of science including that of atomic energy. (2) establishment under the UN of an "Inspection Commission," with definite schedules of dates and categories extending from one completed phase to another. (3) international agreement on the supply of fissionable materials only for commercial power production. In this third step the U.S. would "over a period of years" disassemble its stock of atomic bombs and utilize their nuclear fuel in power plants. These steps, Bush concluded, would not "outlaw" the bomb, but rather mitigate their worst threat in practical fashion. Progress meanwhile toward effective agreements and controls should then be possible on conventional weapons as well, and finally on war itself. Bush proposed that the Soviet Union should be informed of U.S. readiness to cover the whole distance but only "in sequence." In advocating these graduated steps, he expressed a hope "genuinely to open up Russia," a process which he conceded would take "[m] any years."[6)]

Asked"what do we do with our bombs in the meantime" if a plan similar to his was actually implemented, Bush set out "one possible answer" to Byrnes in a letter jointly written with General Leslie R. Groves, Commanding General of the Manhattan Engineer District. The U.S. would "continue to manufacture for the present at least the explosive material for bombs" which could be stored "in bar form." When a workable international inspection

system came into operation, its members would be invited to guarantee that the bomb-grade material was stored in this form. Bush later recalled that his paper had become "the American program."[7]

I. 2 Continued atomic bomb development programs

The development and production of atomic bombs continued. The Manhattan District held onto its existing lines of research and production, pending legislation creating a new agency for atomic energy.

There had to be certain postwar reorganizations both in the production facilities and research projects to streamline them and make them more economical than in wartime, when costs for the production of atomic bombs were not questioned. Many of the top scientists and engineers at Los Alamos were leaving the bomb manufacturing laboratory, since they felt that their missions were fulfilled, and a number of them found the isolation, security restrictions, and poor working and living conditions no longer tolerable. But further reduction in overall scientific manpower would still be necessary.

These changes notwithstanding, the Manhattan District kept its U-235 plants at Oak Ridge, the plutonium piles at Hanford, and supporting facilities, operating in full. In March 1946, two companies, Carbide and Carbon Chemicals (Union Carbide) and Tennessee Eastman, were ready to accept a renewed contract at Oak Ridge beyond June 30, 1946, as requested by the War Department to keep enriched uranium production continuing while Congress was debating atomic energy legislation. General Electric Co. had been approached to take the place of Du Pont at Hanford. President Truman on 10 January 1946 approved plans for Operation Crossroads, a series of A-bomb tests at the Bikini Atoll in the Pacific.

Los Alamos had been assigned for the immediate future the production of Nagasaki-type implosion bombs, development of a more effective model of this type, feasibility experiments for the "super" (hydrogen bomb), and research on the effects of nuclear weapons. The New Mexico laboratory was also investigating the use of atomic energy in domestic power production. The separation of production from weapons assembly had already been carried out in the autumn of 1945, and major efforts in the new year were to be

made by Groves for improved working and living conditions at Los Alamos.

The Scientific Panel of the Secretary of War's Interim Committee in September 1945 had submitted an all-embracing set of suggestions for atomic research and development. An Advisory Committee on Research and Development counseled Groves in March 1946 that the Manhattan District should be expanded to include in its activities a larger number of agencies qualified for the furtherance of research and development in the production of fissionable materials as well as power, of advance training in nuclear studies, and of obtaining basic scientific information. Specific steps recommended for the immediate future included: establishment of national laboratories for basic research (to begin with one at Argonne and another somewhere in the northeastern states), support for two reactor projects (one fast-fission pile and another high-temperature power pile), and distribution of radioisotopes at cost and Government support for a health program.[8)]

II. Atomic energy and foreign relations

It was against this background that the Truman administration held consultations with its British and Canadian allies. An approach to the Soviet Union was made not directly but on the occasion of the Moscow conference of foreign ministers in December 1945.

II. 1 The Atlantic triangle

Before Truman's message to Congress, British Prime Minister Attlee had proposed to Truman that the two hold consultations on the future of the Anglo-American atomic partnership. Truman's reply to Attlee, made after the message to Congress, specified no date for the proposed talks. On October 16, 1945, Attlee informed Truman of his readiness to visit Washington. It was no longer possible to postpone talks indefinitely, said the British Prime Minister, because of strong Parliamentary pressures for a statement on Government policy on "the kind of relationship between nations" which the existence of atomic weapons demanded. With the agreement of Canadian Prime Minister Mackenzie King, Attlee now suggested a tripartite meeting. Truman's Navy Day address for the first time gave the

sign that such a triangular conference was forthcoming and would deal specifically with the atomic bomb.[9]

In Washington, the heads of government of the U.S., U.K., and Canada addressed themselves mainly to international questions related to the atomic bomb. In an agreed declaration of November 15, 1945, they proposed that a commission be set up under the UN to make these specific proposals:

"(a) For extending between all nations the exchange of basic scientific information for peaceful ends.

"(b) For control of atomic energy to the extent necessary to ensure its use only for peaceful purposes.

"(c) For the elimination from national armaments of atomic weapons and of all other major weapons adaptable to mass destruction.

"(d) For effective safeguards by way of inspection and other means to protect complying states against the hazards of violations and evasions."

The U.S., U.K., and Canada agreed, however, that there should be no disclosure of detailed information even concerning the "practical industrial application" of atomic energy until "effective enforceable safeguards" against its destructive use could be devised.

"The work of the [proposed UN Atomic Energy] Commission," they affirmed, "should proceed by separate stages, the successful completion of each one of which will develop the necessary confidence of the world before the next stage is undertaken."[10]

These proposals thus echoed Bush's recommendations to Byrnes, and reflected the activity of Bush himself at the conference, especially on behalf of the step-by-step approach.

Specific treatment of the future of atomic collaboration was left to negotiations at the lower level. In a joint directive to the three-nation Combined Policy Committee (CPC), which had been instituted by the Ouebec Agreement, the three heads of government called for "full and effective cooperation" among the three nations in the field of atomic energy, agreed on the continuation "in a suitable form" of the CPC and the Combined Development Trust (functioning under the CPC for the acquisition of source mate-

rials), and requested the CPC to formulate "appropriate arrangements" for these proposals.[11]

On the administrative level, a memorandum of intent, signed by Sir John Anderson, Chairman of the British Advisory Committee on Atomic Energy, and General Groves, made recommendations to the CPC on the points for consideration in working out a new accord to succeed the Quebec Agreement. The U.S. committed itself to "full and effective cooperation" only in basic scientific research but not in development, design, construction, and operation of nuclear plants. The form of such cooperation would depend upon "ad hoc arrangements" that might be approved from time to time by the CPC. The memorandum was explicit, however, on the need for collaboration in the acquisition and allocation of nuclear source materials, since the U.S. needed continued British cooperation in securing uranium from the Belgium Congo.[12]

II. 2 The U. S. S. R.

An approach to the Soviet Union was the major theme of discussion at the Cabinet meeting on September 21, 1945, the last day of Henry Stimson's public service. While in Potsdam in July, the Secretary of War had counseled Truman that if a necessary condition to "share" America's new discovery with the Soviet Union was the latter's implementation of the 1936 constitution adopting essential elements similar to the Bill of Rights, the U.S. should "go slowly in any disclosures or agreeing to any Russian participation whatsoever." The U.S. should constantly review, Stimson concluded, "how our head-start in X [atomic bomb] and the Russian desire to participate" could be used in removing "the basic difficulties" which he emphasized as being in existence in "a nation . . . systematically controlled from above by Secret Police," without free speech.[13] However, in his letter and memorandum of September 11 to the President, Stimson had summarized his view that America's possession of the atomic bomb could not be used as a lever to directly change the Soviet political regime. The problem of achieving satisfactory relations with the Soviet Union, the retiring Secretary reasoned, was "virtually dominated by the problem of the atomic bomb." Stimson's idea was

that after consultation with the British, the U. S. would be prepared to enter into an arrangement with the Soviets on the control and limitation of "the use of the atomic bomb as an instrument of war," and that it could specifically propose that all states "stop work on the further improvement in, or manufacture of, the bomb as a military weapon." Stimson even said that the U.S. would be willing to "impound" its stock of bombs, provided that the Soviets and the British would agree to non-use of the bomb as an instrument of war "unless all three Governments agree to that use." Stimson's emphasis was that the U.S. take such an initiative toward the Soviets "as a proposal of the United States," backed by the British, "but peculiarly the proposal of the United States," before the plan was debated on the floor of a conference of nations at large.[14)]

James Forrestal, Secretary of the Navy, opposed such an offer by pointing out that the Soviets were "Oriental" in their thinking, just like the Japanese, who failed to observe the 1921 naval agreements. The U.S. could exercise, he added, "a trusteeship" over the atomic bomb on behalf of the United nations and limit its manufacture for use only in a UN role. Also against the Stimson partnership proposal were Fred M. Vinson, Secretary of the Treasury, and Thomas C. Clark, Attorney General, while Henry Wallace, Secretary of Commerce supported Stimson. Invited to the September 21 Cabinet meeting by Stimson, Bush pointed out that the secrets of bomb design and manufacturing should be held closely in U.S. hands, and that only the basic information which could not be kept secret might be offered as a quid pro quo for convincing signs of Soviet trustworthiness.[15)]

At their subsequent meetings, the Secretaries of State, War, and the Navy were opposed to international deliberation on the future of atomic bombs. Secretary of State Byrnes held that the U.S. had to see whether it could work out "a decent peace" prior to any such discussion. He remarked that Truman's October 3 message to Congress calling for control of atomic energy was going to create difficulties, for the Soviets might call for discussion on overall proscription of the bomb. Secretary of the Navy Forrestal warned against the "great danger" he saw in increased pressure for international control "from within this country." Byrnes agreed, and pointed to pressures

"from abroad" too, adding that he would appeal to Truman "not to push the question of consultation" even with the British, whose desire was to have early discussion on the renewal of its wartime atomic partnership with the U.S.[16] The Secretary of State had just returned from the Council of Foreign Ministers' meeting in London where Soviet Foreign Minister Molotov was not tractable, despite the new condition of U.S. monopoly of the atomic bomb.

At a meeting six days later, Byrnes said that the question of exchange of information was relevant to U.S. ability to inspect nuclear plants in other countries. It was "childish," he said, to think that the Soviet would let the Americans see what they were doing. Referring to the Soviet violation of the Russo-Japanese non-aggression treaty and the Molotov-Ribbentrop pact, Byrnes added it would be unwise for the U.S. to trust the Soviet word.[17]

At a later meeting, Byrnes referred to a visit he received from J. Robert Oppenheimer, wartime head at Los Alamos, who said that the U.S. should have approached Stalin a month ago with regard to the atomic bomb and that international discussion should no longer be delayed. The scientist was told, Byrnes said, that however great the admiration he had for Oppenheimer's scientific attainments, he did not believe that the scientist was qualified and responsible for international affairs. Asked if full inspection could be carried out in the Soviet Union while U.S. representatives even in Romania and Bulgaria had difficulty to getting around, according to Byrnes, Oppenheimer conceded that that situation was "pretty bad."[18]

One consistent line of thought is traceable, leading up to Bush's November 5 memorandum to Byrnes. This strategy minimized commitments to the partners of the Atlantic triangle, and granted the Soviet Union only a step-by-step control option, while exploiting to the full existing U.S. atomic leverage.

The tripartite Washington declaration did not call specifically on the Soviet Union. Only after pressures for an approach to the Soviet Union had been exerted on the Secretary of State both from his own department and from Capitol Hill did Byrnes, after clearance from the President, ask Molotov for a meeting of tripartite foreign ministers in Moscow, in accordance with

the Yalta understanding.[19]

However, there was a slight chance for a direct approach to the Soviet Union to be put on its track when State Department planners went ahead with preparations for a Moscow Conference of Foreign Ministers. This approach was apparently similar more to the one advocated by Stimson in his September 11 memorandum than to Bush's strategy.

Early in December when Byrnes authorized Benjamin Cohen and Leo Pasvolsky to begin policy planning for the establishment of a United Nations commission on atomic energy, its composition and frame of reference, the two immediately organized an informal inter-departmental working group. The members included Carroll Wilson, executive assistant to Bush in the OSRD, Herbert Marks, special assistant to Acheson, and Joseph E. Johnson, a history professor at Williams College. For scientific and engineering knowledge, the team also depended on Henry Smyth, a Princeton physicist, and J. Robert Oppenheimer. Captain Joseph A. Volpe, Jr., Groves Headquarters, and Captain R. Gordon Arneson, War Department, sat with the group from time to time. The draft worked out by the group by December 7 was examined three days later by a policy committee which included George Harrison for the War Department, Admiral William H. P. Blandy for the Navy, Bush for the OSRD, Charles E. Bohlen, Russian specialist in the State Department, Pasvolsky and Cohen.[20]

The "Draft Proposals on Atomic Energy for Submission to Soviet Government," revised and completed by December 10, emphasized the U.S. desire for collaboration with other nations in preventing the destructive use of atomic energy, and in promoting the use of this energy and other scientific advances for the benefit of mankind. The U.S., Britain, and Canada believed, the draft said, that the UN should set up a commission to study the problems raised by the discovery of atomic energy and make recommendations. The U.S. Government expressed its hope that its Soviet counterpart would "join in the sponsorship of a proposal" to that effect at the first meeting of the UN in January 1946. The draft frankly admitted the existence of "some difficult substantive questions." Such questions included, the draft pointed out, "a number of separate although related segments": (1) ever-widening ex-

change of scientists and scientific information, technique, and materials, (2) development and exchange of knowledge concerning natural resources, (3) exchange of technological and engineering information, and (4) safeguards against and control of methods of mass destruction. Consequently, any agreed international action was likely to be exceedingly complex and had to be based on careful and earnest study, the draft said. It was important, however, that the draft proposals were flexible enough to say that successful international action with respect to any phase of the problem was "not necessarily a prerequisite" for undertaking affirmative action with respect to other phases. Affirmative action should be taken whenever it was likely to be fruitful, the draft said. This method of progress was in marked contrast to the "separate stages" approach adhered to in the Truman-Attlee-King declaration or the Bush strategy. Of the four segments above, the U.S. planners believed that mutually advantageous international action might well be undertaken promptly on the first item, while there was troublesome questions on the other items requiring the devising of effective, reciprocal and enforceable safeguards acceptable to all nations for a solution. In conclusion, the U.S. plan expressed its willingness to consider Soviet proposals on any phase and to discuss them with the Soviet Government "both in the United Nations Commission and separately."[21)]

Military chiefs were critical of the State Department plan. General Groves expressed grave doubts about international exchanges of scientists for fear of possible disclosure of "vital information." Specifically, Groves warned that the American negotiators in Moscow would not discuss "the raw material situation." Secretary of War Patterson withheld his comment on the two issues raised by Groves but he still found it necessary to forward the Groves' memo to Byrnes. Secretary of the Navy Forrestal wrote to Byrnes that the State's proposals went "too far." Opposing any discussion of the specific kinds and types of information until genuine reciprocity in information exchange was guaranteed, Forrestal enclosed an alternative draft in which he recommended that Byrnes would begin U.S. proposals with a desire for collaboration to prevent the destuctive use of atomic energy and then simply present U.S. views on setting up a UN commission to ask if the Soviet

Government would associate itself with a proposal along such lines.[22]

Influential senators resented the way the Secretary of State treated them in matters related to foreign relations over atomic energy. The eleventh hour briefing Byrnes gave on December 10 for Senators Tom Connally, Arthur Vandenberg, and others of the Committee on Foreign Relaions and of the Special Committee on Atomic Energy, reminded them of the distasteful precedent during the Truman-Attlee-King talks a month earlier. When Byrnes first introduced James B. Conant, President of Harvard University to the senators, as accompanying him to Moscow as an advisor, and then briefed them of his trip, the senators took it almost for granted that the chemist would be needed for disclosure of scientific information. When Byrnes read from the December 10 draft proposals, the senators expressed anxiety that the various stages in the U.S. proposals might be discussed independently without effective safeguards and that an exchange of information might be agreed upon before there was absolute, world-wide inspection and control. Byrnes did not dare to divulge all the specifics of the draft proposals and could not convince the senators. With growing concern, the senators unanimously voted for an immediate audience with the President. On December 11 while Byrnes was already en route to the Soviet capital, Truman, in the presence of the senatorial guests, read the full draft proposals of December 10. However, the Presidential "directive," the senators pointed out, had authorized the Secretary of State to "prematurely give away . . . at least half of all our 'trading stock.'" The senators insisted that there should be no disclosures of atomic secrets, and that the order of the four stages be reversed. They even suggested that the "'directive' be immediately changed by radio" accordingly.[23]

In Moscow, meanwhile, Soviet Foreign Minister V. M. Molotov insisted on placing atomic energy at the bottom of the agenda, contrary to what Byrnes had prepared. Byrnes had hoped that it would conveniently have been dealt with first so that a solution to this problem might facilitate negotiations on other matters, thereby at the same time forestalling imminent opposition to his position in Washington.

Byrnes received from Acheson a summary of the meeting between the

President and the senators. The President assured the senators, the Acting Secretary reported, that he had "no intention of agreeing to disclose any information regarding the bomb at this time or unless and until arrangements for inspection and safeguards could be worked out." Truman made it clear, Acheson said, that the Secretary of State was to refer back to Washington before agreement was reached on any proposals advanced. Byrnes' reply of December 17, that he wouuld be sticking to "the framework of the [November 15] three power declaration" reflected a wavering retrogression from the December 10 "directive." Byrnes also sent back an amended version of the "United States Proposals on Atomic Energy." In this plan, however, the U.S. now "suggested," instead of specifically inviting the Soviet Union for joint action, that the five permanent members of the Security Council, together with Canada, in January 1946 should join in the sponsorship of a proposed establishment of a UN atomic energy commission. In addition, the original passage that any of the separate steps could be promoted prior to the accomplishment of the preceding one was deleted. The proposal for a U.S. -U.S.S.R. scientific exchange and for a bilateral discussion even outside of the UN was also deleted. The final plan concluded with some passages quoted from the Truman-Attlee-King declaration which proclaimed that information could be shared reciprocally only after "effective enforceable safeguards" had been devised. In tabling the proposal, however, at the Third Formal Session of the Moscow Conference on December 18, Byrnes omitted the passage on "separate stages" and "enforceable safeguards," the key component of the November 15 tripartite declaration, and the passage in question was circulated as an addition by the U.S. delegation at the Fifth Formal Session on December 20.[24] Byrnes now did not even follow the President's new suggestion made on December 21 to reinstate the original proposal for a bilateral U.S.-U.S.S.R. negotiations separately from the UN forum.[25]

In a December 23 meeting, Ambassador Averell Harriman wired Acting Secretary of State Acheson, Molotov held out for "complete subordination of the [proposed UN] Atomic Energy Commission to the Security Council" rather than to the General Assembly as proposed by the U.S., making it a subordinate agency of the Council. The Soviet Foreign Minister "objected to

any reference to a plan being developed by stages." In this report, however, Harriman conveyed Byrnes' hope to Truman that on the following afternoon the U.S., U.K., and Soviet delegations would be able to reach "some agreement" on the points at issue.[26]

At a Stalin-Byrnes meeting held at Byrnes' request on the evening of December 23, Stalin said that the Soviet Government had "accepted nine-tenths of the American proposal" and had "only proposed one-tenth for their side," referring to the status of the UN Atomic Energy Commission in question. After some discussion, however, Stalin and Byrnes agreed that there was little substantial difference between the two positions, and that Byrnes and Molotov would be in a position to "work out the drafting difficulties."[27]

Yet, on December 24, Molotov said that the passage on "separete stages" was not necessary since the commission would establish its own rules of procedure. In rejoinder to the suggestion made by British Foreign Secretary Ernest Bevin, that in adopting their procedures the commission and the Security Council should make reference to the "separate stages" principle of the Washington declaration, Molotov said that would not be "convenient," as the Soviet Government had not been a party to that declaration. With Bevin's support, Byrnes further asked Molotov to agree to the inclusion of the principle, although not necessarily mentioning the Truman-Attlee-King declaration. The "separate stages" principle, Byrnes said, had been agreed to by the President and two Prime Ministers. For his part, Byrnes said, he would agree to Molotov's amendment regarding the status of the proposed commission. Molotov said he would have to think it over, and that it seemed possible to reach agreement on that matter. After a recess, when the foreign ministers took up the question of atomic energy again, Molotov finally voiced Soviet agreement with the document containing the "separate stages" approach in exchange for U.S. consent for the principle that the UN Atomic Energy Commission "shall be accountable for its work to the Security Council."[28]

The adoption by the wartime "grand alliance" of the major principles of the Truman-Attlee-King declaration cleared the way for the United Nations to serve as a new venue on atomic energy.[29]

Nevertheless, in addition to taking substantive procedural measures on the matter of the organizational framework, this Moscow agreement to commit the UN itself to the "separate stages" approach to the problems of atomic energy seems to have actually consituted an important substance infused into the UN Atomic Energy Commission even before it was formally instituted in January 1946, and began deliberations in June the same year.

III. Policy formation

In January 1946 Byrnes accepted Bush's suggestion for carrying through a policy study before the UN commission convened. Bush's idea stemmed from Carroll Wilson, his former aide at the OSRD, who pointed to three main topics for attention: (1) elaboration of the term "stages" used in the Atlantic declaration and the Moscow communique, (2) the mechanism for controls and inspection, and (3) the strength of the U.S. technological position. As the Secretary of State benefited from an inter-departmental study prior to Moscow, he appointed a policy planning committee a few minutes before leaving for the UN General Assembly session in London. The Senate Special Committee on Atomic Energy was threatening at the time to hold hearings on the international aspects of atomic energy, which might uncover the still classified Quebec Agreement, and such an influential policy study committee would safeguard the administration against Congress. [30]

III. 1 The mandate to a Secretary of State's Committee

The Secretary of State's Committee on Atomic Energy was chaired by Dean Acheson, Under Secretary of State, and its remaining members were : Vannevar Bush, President of the Carnegie Institution and former Director of the OSRD; James B. Conant, President of Harvard University, who had worked under Bush in the Manhattan Project; Leslie R. Groves, Commanding General of the Manhattan Engineer District; and John J. McCloy, former Assistant Secretary of War, who helped Stimson prepare the September 11, 1945 memorandum to Truman.

After the September 21, 1945 Cabinet meeting, Acheson recommended to the President a gradual and conditional process of information exchange

with the Soviets in the field of atomic energy development. Since then, Acheson had said little or nothing publicly about the subject. Byrnes charged the Acheson committee with studying "the subject of controls and safeguards" necessary to protect the U.S. Government. But Byrnes and Acheson had had "no prior discussion" of that assignment or of "the policy decision upon which it was based." The assignment was "contrary to" what Acheson had recommended to Truman in September 1945. Indeed, "what had seemed policy" in the preceding autumn was "a hallucination" now, Acheson writes, since he realized that in the Truman-Attlee-King declaration the U.S. had committed itself to begin the work in a UN commission rather than first consulting with the British and the Russians.[31)]

The Acheson committee first met on January 14, 1946. Bush said that the U.S. should make a vigorous, public effort at international control, although he also pointed out difficulties ahead. Groves said that to be "truly realistic" rather than idealistic the U.S. should not permit any other nations "to make or possess atomic weapons." Should any foreign country start to produce such weapons, the U.S. ought to "destroy its capacity" to manufacture them before it had gone far enough to threaten the U.S. The choice, as Groves put it, was either "a hard-boiled, realistic, enforceable, world-agreement" to ensure that atomic weapons are outlawed, or "an exclusive supremacy in the field" by the U.S. and its dependable allies with "no other nation to have atomic weapons."[32)]

Acheson suggested that the committee entrust the main part of the work on a board of consultants. Groves objected on the grounds that at least Conant, Bush, and himself "knew more about the broad aspects of the problem" that the Secretary wanted them to study than any panel that could be assembled. He had "access to all the scientific assistance" that might be needed on any particular point, the general said. Groves was "outvoted," however, and the committee agreed to Acheson's suggestion after considerable discussion.[33)]

A Board of Consultants to the Acheson committee was set up on January 23 under David E. Lilienthal, Chairman of Tennessee Valley Authority. The Lilienthal panel included also Robert Oppenheimer, who had transferred

from Los Alamos to the University of California at Berkeley; Charles A. Thomas, Vice-President of the Monsanto Chemical Co. and plutonium chemist; Harry A. Winne, Vice-President for Engineering Policy of General Electric, who coordinated the manufacture of components for the electromagnetic and gaseous diffusion enrichment plants; and Chester Barnard, President of the New Jersey Bell Telephone Co.[34)]

The Lilienthal group worked virtually full time for over seven weeks, including a visit to Oak Ridge and Los Alamos. On March 7 and 8 at Dumbarton Oaks, Lilienthal's team reviewed its draft report with the Acheson committee. The committee then entrusted the consultants with the task of setting forth in a revised draft specific steps of transition to atomic control, an addition strongly emphasized by Bush. The board held a second drafting conference with the Acheson committee on March 16 and 17, where its final report was transmitted.[35)]

III. 2 The Lilienthal plan

Section I of the Lilienthal Report outlined the reasons for international control. Their premise was that a covenant to "outlaw" atomic weapons, relying solely on inspection for enforcement, could nullify any confidence in the pledged word of rival countries developing atomic energy so long as the production of fissionable materials by national governments is permitted; the development of atomic energy for peaceful purposes and that for bombs are "interchangeable and interdependent." From this "realistic view," the authors concluded, after consultation with the War Department's Technical Committee on Inspection and Control, that there was "no prospect of security against atomic warfare" in a system of international agreements to outlaw such weapons if controlled by a system exclusively relying on "inspection and similar police-like methods." "[T] he heart of the difficulty" lay in national rivalries over the intrinsically dangerous aspects of atomic energy, which could only with difficulty be distinguished from peaceful applications.

In Section II, dealing with the essential characteristics of a workable plan for security, the Lilienthal Report precluded inspection as the primary safeguards against violations of conventions prohibiting atomic weapons, and

suggested instead "a reasonable and workable system" that might provide security, and even foster the constructive, humanitarian uses of atomic energy.

The authors pointed out that uranium was needed for the production of fissionable materials. Absolute control of this element would therefore provide "adequate safeguard" over source materials, (with provisions governing thorium also incorporated in the system). The authors believed that existing knowledge in the field of atomic energy was adequate for the purpose of a system of control. (Ch. II) From the possibilities for the constructive applications of atomic energy, as pointed out by the Secretary of War's Interim Committee on Atomic Energy, the authors envisioned "developmental functions" of a reasonably successful system of security. (Ch. III) The authors saw the assured removal of international rivalry among nations in the assignment of the intrinsically dangerous phases of the development of atomic energy to "an international organization responsible to all peoples." (Ch. IV) The authors envisioned the division of the activities in the field of atomic energy into "safe" and "dangerous" applications.(Ch. V)

In Section III, setting forth the case for security through international cooperative development, the authors recommended the establishment of an international agency, tentatively named the International Atomic Development Authority (IADA), with exclusive jurisdiction to conduct all intrinsically dangerous operations in the nuclear field. The IADA would have "authority to own and lease property, and to carry on mining, manufacturing, research, licensing, inspecting, selling, or any other necessary operations." Individual nations and their citizens would be free to conduct, under license and with a minimum of inspection from the IADA, all non-dangerous, or safe, operations. In practice, the IADA would be governed by dual objectives of promoting the beneficial use of atomic energy, and the maintenance of security. This "strategic balance" would determine the location of IADA-owned stockpiles and plants.

In their concluding Section IV on the transition to international control, added after the March 7–8 review with the Acheson committee, the authors of the Lilienthal Report admitted that it would take "considerable time" before it could come into operation. They commented on conditions during

the long period of transition, postulating that the U.S. monopoly in atomic weapons could not last. Acting on advice from the Manhattan Engineer District Committee on Declassification, the Lilienthal Report recommended that information be transferred to the IADA in four "stages": general knowledge in the first two stages, and then "technical information and know-how" and "information regarding the construction of the bomb" in the last two stages. The transfer of materials and processes would also progress by stages, beginning with source material production, extending through fuel and power production, and ending with "the control of explosives."[36)]

The Lilienthal board as such did not specify the stage in which the U.S. would be required to discontinue the production of atomic bombs. However, in its letter of transmittal to the Secretary of State, the Acheson committee made clear that the plan did not require that the United States discontinue atomic bomb manufacture "either upon the proposal of the plan or upon the inauguration of the international agency." Although this would be necessary at some stage, Acheson went on, the plan should not be construed as a commitment to do this at the outset or "at any specific time." Unmentioned in the Lilienthal Report and in Acheson's letter of transmittal to Byrnes were procedures for disassembling and non-military disposition of the growing stockpile of bombs in the U.S. arsenal. Nevertheless, this matter, too, like the discontinuance of atomic bomb manufacturing, should have been regarded, it can logically be assumed, as involving "considerations of the highest policy" affecting U.S. national security. Any decisions on these matters, the Acheson committee said, had to be made by the U.S. Government "under its constitutional processes and in the light of all the facts of the world situation."

III. 3 The policy framework

The Lilienthal Report, apart from its concluding section on the staged transition written during the final March review and revision, owed important theses to the scientists of the Manhattan Project and their colleagues in administrative positions.

P. M. S. Blackett observed that the Acheson-Lilienthal Report, as adopted

by Acheson, borrowed from the Franck Report and its elaboration by the Federation of Atomic Scientists founded in November 1945. The two reports agreed that there could be neither monopoly of atomic bombs by one nation, nor effective direct military defense against the use of such bombs; they stressed that control of uranium and thorium was needed under an international agency to which some national sovereignty would be transferred, and that a mere paper agreement would not outlaw atomic weapons.[37]

Alice K. Smith wrote that "important components" of the Acheson-Lilienthal Report were inspired by Niels Bohr, the Danish Nobel Prize Physicist and consultant to the Manhattan Project, who during the war failed to convince Roosevelt and Churchill to join with the Soviet Union to forestall the imminent nuclear arms race. Among consultants of the Lilienthal board, Smith added, Oppenheimer had been in closest touch with all the leading scientists. Thus, she drew attention to the close relationship between Lilienthal's recommendations and the program scientists urged on policy-makers and the public in the months after the war.[38]

The Lilienthal group at its meeting on January 31 recognized two polar opposites: either to hold American atomic technology "as closely as possible," or to give up every attempt at secrecy. The consultants found a solution of international control somewhere between the two extremes. Oppenheimer divided the atomic activities into harmless and dangerous categories and sketched an international authority with important "developmental functions." His vision had "immediate appeal" to the rest of the consultants.[39]

According to Oppenheimer, the prohibition of further work on atomic energy and the separation of its development from that of control were both "unworkable" propositions. It was essential for a future international agency to combine the functions of development and of control. Such an international authority should have "a monopoly" on atomic research and development, and the exploitation of atomic technology, both military and industrial. Potential applications would be developed under some form of license system, but the line dividing safe and dangerous activities could not remain fixed. The international authority should build open, cooperative relationships among scientists, engineers, and industrialists.[40]

An outstanding feature of the Acheson-Lilienthal Report was its demonstration of the technical feasibility of the international control of atomic energy.[41] The nub of the problem, however, was the political conflict involved in the processes of transition. Some members of the Acheson committee insisted on adding to the draft a new section on staged transition as "safeguards" in the event of failure of the plan.[42]

The Report admits that the U.S. monopoly cannot last, but saw "quite different considerations" involved in the transfer of knowledge and of materials and processes, the two constituent elements of the U.S. monopoly. In the material aspects, at all times during the transitional period the U.S. would hold the raw material supplies, the Oak Ridge and Hanford production plants and the Los Alamos laboratory and bomb manufacturing center, the stockpiles of fissionable materials, and the stockpiles of the bombs themselves. (Section IV) Appropriate "safeguards" to be accompanied at each stage during the transition would be solely for the U.S. national interest, and other nations could find "no security against atomic warfare" except the security that resided in the U.S.'s own peaceful purposes, or the attempt at secrecy that was seen in developing secret atomic enterprises of their own. (Section III, Ch. II)

With regard to the U.S. information monopoly, the Report declares it "cannot be, and should not be, lost at once." (Section IV) This was a considerable retreat from the earlier position, stated in the introduction, emphasizing the importance of "facts" in working out any plan on the oppressively difficult problem of international control of atomic energy. Lilienthal and his board, out of "a patient and time-consuming analysis and understanding of the facts," felt "hopefulness" that a plan could be devised with agreed essentials. The Report noted in the introduction, too, that if others were able to go through a period of close study of the alternatives, and an absorption in the salient and determining "facts," they would have a similar experience of not beginning "with a preconceived plan" but with "facts." Yet, the Lilienthal board would deny in the conclusion what it recommended in the introduction for others to follow.[43]

At the final review of the revised draft on March 16 and 17, Bush warned

the Lilienthal board against a policy of disclosing a great amount of data at the beginning of the plan, and advised the subdivision of information into categories, with a schedule of disclosure laid down for each category. This was accomplished with assistance from the Manhattan District Committee on Declassification, which made recommendations aimed at furthering the "long-term national security" of the U.S. "in the absence of international measures."[44]

The main question however was reaching agreements on these very same international measures, and any comprehensive study, let alone decisions on atomic energy, were hardly possible unless the UN Commission was furnished at the beginning with all the "facts" and their ramifications. But the Report accepted the withholding of atomic information for reasons of "national security." The Report concludes that "the United States will at all times be in a favorable position with regard to atomic weapons," even in the worst case, if during the transitional period the entire effort collapsed. Lilienthal and Acheson may have believed that the Report could more readily be accepted by both hawks and doves at home with the inclusion of this sales point, but quite the contrary was the case in the international arena.

In the technical analysis and planning from the Introduction through Section III, the Lilienthal document tried carefully to distinguish the U.S., as a constituent member of the proposed new international agency, from that agency itself. Yet the Report seems to assume the U.S. would act as the agency's trustee for all nuclear scientific and material assets during the period of transition and even beyond. The trusteeship concept, as explicityly formulated in Truman's public statements, that the U.S. possession of the atomic bomb was "a sacred trust," at times appears as a major premise even in the technical planning. Thus, in a set of criteria for an adequate international security plan (Introduction, Section II), the Report says: "The plan must be . . . such that if it fails or the whole international situation collapses, any nation such as the United States will still be in a relatively secure position, compared to any other nation." This premise might well have been assumed by the authors because of the monopoly position of the U.S., but trusteeship would allow privileges to only one constituent nation of an international

agency, and prove damaging to the constitution of the international organization.

Clearly involved in the creation of IADA was the transfer of some national sovereignty to this international agency, as suggested already by the Franck Report. Such a partial transfer of sovereignty had no precedent in history, and would be possible only if nations felt they could gain security by doing so. With the U.S. retaining its monopoly in nuclear weapons even after the inauguration of the international body, the Soviet Union could hardly find itself in a secure position through a multi-staged and conceivably lengthy transitional period. Indeed, the security of the nations could only be enhanced if they stood on an equitable footing in the new agency, a fact acknowledged in the technical planning of the Lilienthal board.[45)]

III. 4 The Baruch plan

While the Acheson committee was applying the final touches to the Lilienthal board's report, Truman nominated Bernard M. Baruch as the U.S. Representative to the UN Atomic Energy Commission. The decision was highly political, to win the fight for the McMahon Act and to exploit what Truman thought Baruch's name meant internationally.[46)]

Baruch had no expertise on atomic energy, but was unhappy with the Acheson-Lilienthal Report, both because he opposed public ownership and because he felt that he might be used as a mere "messenger boy" to deliver a prepared document in which he had no hand. Toward the end of May, however, after two months' intensive studies of the problem and consultations with scientists, State Department aides, military advisors, and specialists of every kind, Baruch finally decided to support the basic principle of international control as laid down in the Report.[47)] As Baruch saw it, "the question of enforcement" was central to all problems of effective international jurisdiction. Sanctions were essential, which in turn brought him up against "the issue of veto in the Security Council." Baruch regarded "penalization as being the sine qua non" of U.S. policy. He was quite sure that it might bring the U.S. "athwart of the veto power." Even so, Baruch believed, either the penalty must be dropped or the structure of the United Nations

changed, or the international atomic energy authority be a separate body functioning outside of the United Nations.[48]

On June 7, in the presence of Baruch, Truman initialed paragraph by paragraph a "Statement of United States Policy." It stressed that "a treaty merely outlawing possession or use of the atomic bomb" would not be an effective fulfillment of the directions under which the UN Atomic Energy Commission was to proceed, and that there should be clear difinition of the acts which would constitute such violations of the control system and "the penalties and concerted action which would follow such violations."[49]

On June 14, 1946, when Baruch proposed at the United Nations the creation of an International Atomic Development Authority, he deviated even from the Presidential mandate by propounding "a program . . . of enforceable sanctions—an international law with teeth in it." The matter of "punishment" resided "at the very heart" of the U.S. security system. Baruch's formulation of the U.S. position was contrary to the existing principles of Security Council equanimity and his reiteration of the sanctions concepts colored all developmental features of the Lilienthal plan.[50] Whereas Truman sounded an ambitious search for a brand-new approach when he said in his October 1945 message to Congress that atomic energy was "a new force too revolutionary to consider in the framework of old ideas," what he authorized Baruch to submit to the UN eight months later turned out to be a plan tailored to national interests, too conventional to consider the "new force."

Epilogue

The Acheson-Lilienthal plan foresaw, from a technological perspective inherent in nuclear physics, the need for international control of atomic energy. It successfully showed the technical possibility of the international control of atomic energy, but failed to provide a "manageable" political plan that could be accepted by the main prospective partners.

All U.S. attempts at the time fostered the idea of "control" over the status quo in the development of atomic energy, but none sought the elimination of nuclear weapons by a covenant to outlaw such weapons. Such an agreement might effectively have been combined with rational technical

planning for international security. Under these circumstances, controls might have helped build up the confidence necessary to overcome the national rivalries which the Lilienthal group perceived as "the heart of difficulties." However, such a course was outside the conceptual and policy framework of the Acheson-Lilienthal Report.

The U.S. choice to place the problem of atomic energy on the agenda of the UN seemed logical and constructive for a leading founding member of this world forum, in the light of President Truman's declared willingness to find the answer to the problem "in partnership with all the peoples of the United Nations." This choice would also have meant that the U.S. would not necessarily have to make formal negotiations on this specific issue individually, either with the Soviet Union or even with Britain and Canada, if it did not desire to do so, and that the U.S. would be in a position to go ahead with its own atomic bomb program while its representatives in the UN were engaged in time-consuming debates with representatives of other countries, without ever finding any solution whatsoever.

The Baruch group used the Acheson-Lilienthal Report to gain diplomatic leverage in the world arena for a policy of retaining the U.S. monopoly in nuclear weapons over as long a period as possible. The provisions for veto and sanctions in the Baruch plan were incompatible with the founding principles of the United Nations, which were part of the evolving principles of international organization that began to function in the wake of World War II. The fact that the Truman administration made no substantial overtures to the Soviet Union prior to the presentation of the Baruch plan to the UN was evidence that it did not expect the proposal to be accepted. By the agreement at the Moscow Conference of Foreign Ministers in December 1945, the Soviet Union had committed itself to the "separate stages" approach.

The Baruch plan turned out to be a strategy similar to what Bush had recommended in his November 5, 1945 memorandum to Byrnes. The Soviet Union was faced with the alternatives either of conforming to stringent U.S. controls before the prohibition of atomic weapons, or of a world public opinion "arrayed against her." The first postwar chance for a world free of nuclear weapons was tragically lost.

Footnotes

1. Quoted from Truman's Address on Foreign Policy at the Navy Day Celebration in New York City, October 27, 1945 in *Public Papers of the Presidents: Harry S. Truman* [hereafter *PPOP: HST*], *1945* (Washington, D.C.: U.S. Government Printing Office [hereafter USGPO], 1961, p. 437.
2. Acheson-Lilienthal Report, formally *A Report on the International Control of Atomic Energy* prepared for the Secretary of State's Committee on Atomic Energy by a Board of Consultants, Department of State Publication 2498 (Washington, D.C.: USGPO, 1946), and the Baruch Plan, formally "The United States Proposals for the International Control of Atomic Energy" in U.S. Department of State, *The International Control of Atomic Energy; Growth of a Policy* [hereafter *Growth of a Policy*] (Washington, D.C.: USGPO, 1946), appendix 13, pp. 138–147.
3. President Truman, Radio Report to the American People on the Potsdam Conference, August 9, 1945 in *PPOP: HST, 1945*, p. 213.
4. President Truman, Special Message to the Congress on Atomic Energy, October 3, 1945, *PPOP: HST, 1945*, pp. 362–366; *idem.*, Address on Foreign Policy at the Navy Day Celebration, October 27, 1945, *ibid.*, pp. 431–438. The months that followed Truman's October 3, 1945 message to Congress saw legislative battles over the May-Johnson bill, drafted by the Secretary of War's Committee prior to the atomic bombing, and a more civilian-control-oriented McMahon bill. The latter finally prevailed but only with the addition of certain components of the former to satisfy the military and their supporters, and a compromise bill was signed by Truman as the Atomic Energy Act in August 1946. For an account of the legislative battles resulting in the 1946 Atomic Energy Act, see Richard G. Hewlett and Oscar E. Anderson, Jr., *A History of the United States Atomic Energy Commission*, Vol. I, *The New World, 1939/1946* [hereafter *The New World*] (University Park, Pennsylvania: Pennsylvania State University Press, 1962), Chapters 13 and 14.
5. For the first attempt, see Vannevar Bush and James B. Conant to the Secretary of War (Henry L. Stimson), September 30, 1944, "Salient Points concerning Future International Handling of Subject of Atomic Bombs," Record Group 77, Manhattan Engineer District, Top Secret file, folder 26L, National Archives, Washington, D.C.
6. Memorandum by the Director of the Office of Scientific Research and Development (Bush) to the Secretary of State (Byrnes), November 5, 1945, U.S. Department of State, *Foreign Relations of the United States; Diplomatic Papers* [hereafter *FRUS*], 1945, Vol. II (Washington, D.C.: USGPO, 1967), pp. 69–73.
7. V. Bush and L. R. Groves, Supplementing Memorandum of November 5, November

9, 1945, *FRUS*, 1945, II, p. 74, and Bush, *Pieces of the Action* (New York: William Morrow, 1970), pp. 296–297. For a detailed account, see *The New World*, p. 461.

8. *Ibid.*, pp. 624–637.
9. *Ibid.*, pp. 456–458; Letter of Prime Minister Attlee to President Truman, September 25, 1945 in Margaret Gowing, *Independance and Deterrence; Britain and Atomic Energy, 1945–1952*, Vol. 1, *Policy* Making (London: Macmillan, 1974), appendix 3, pp. 78–81; Attlee to Truman, October 16, 1945, *FRUS*, 1945, II, pp. 58–59.
10. The Three-Nation Agreed Declaration on Atomic Energy, Washington, D.C., November 15, 1945 in *Growth of a Policy*, appendix 13, pp. 138–147. The declaration made no reference to the 1943 Quebec Agreement, which was declassified only in 1954. The text, "Articles of Agreement Governing Collaboration Between the Authorities of the U.S.A. and the U.K. in the Matter of Tube Alloys", was printed by the U.S. Department of State in *United States Treaties and Other International Agreements*, Vol. 5, Part 1 (Washington, D.C.: USGPO, 1954), pp. 1115–1116. However, some senators, at least, Arthur Vandenberg, chairman of the Senate Foreign Relations Committee, and Bourke B. Hickenlooper, discovered for the first time in the late spring or early summer of 1947 the existence of a Roosevelt-Churchill agreement. See Arthur H. Vandenberg, Jr., ed., *The Private Papers of Senator Vandenberg* (Cambridge, Mass.: Riverside Press, 1952), pp. 359–361.
11. Memorandum by President Truman, Prime Minister Attlee (Britain), and Prime Minister King (Canada), Washington, D.C., November 16, 1945, *FRUS*, 1945, II, p. 75.
12. Memorandum by the Commanding General, Manhattan Engineer District (Groves), and the Chairman, British Advisory Committee on Atomic Energy (Anderson), to the Chairman of the Combined Policy Committee (Patterson), Washington, D.C., November 16, 1945, *FRUS*, 1945, II, pp. 75–76.
13. Secretary of War Henry Stimson, "Reflections on the Basic Problems Which Confront Us," Babelsberg, Germany, July 19, 1945, *FRUS: The Conference of Berlin (Potsdom Conference)*, 1945, Vol. II (Washington, D.C.: USGPO, 1960), pp. 1155–1157, also cited in Henry L. Stimson and McGeorge Bundy, *On Active Service in Peace and War* (New York: Harper & Brothers, 1948), pp. 638–641.
14. Secretary of War (Stimson) to President Truman with the attached memorandum, "proposed Action for Control of Atomic Bombs," Washington, D.C., 11 September, *FRUS*, 1945, II, pp. 40–44. Concerning "sharing the atomic bomb with Russia," referred to in Stimson's September 11 letter to Truman, Dean Acheson, in *Present at the Creation: My Years in the State Department* (New York: W. W. Norton, 1969), p. 113, writes that it was "misunderstood at the time and has been since,"

and remarks that the Secretary of War in fact addressed "the much narrower question of how to approach discussion with the Russians" on the problems arising from U.S. development in atomic weapons.

15. By "Oriental," Forrestal seemed to have given expression to a slight, for he added: ". . . until we have a longer record of experience with them [the Russians] on the validity of engagements . . . it seems doubtful that we should endeavour to buy their understanding and sympathy. We tried that once with Hitler." Walter Millis, ed., *The Forrestal Diaries* (London: Cassell 1952), pp. 105–106. Millis, p. 106, observes that Forrestal's idea of "a sole trusteeship" seems to have received no support. Instead, he writes, both the idea of submitting the matter for adjustment under the UN machinery and another idea of reciprocal exchange of data with adequate regulatory measures became basic to subsequent U.S. policy. For narratives and accounts of the Cabinet debate on the Stimson proposal, see *The New World*, pp. 420–421, Millis, *op. cit.*, pp. 104–106, John Morton Blum, ed., *The Price of Vision: The Diary of Henry A. Wallace, 1942–1946* (Boston: Houghton Mifflin, 1973), pp. 482–487, and Gregg Herken, *The Winning Weapon: The Atomic Bomb in the Cold War, 1945–1950* [hereafter *The Winning Weapon*] (New York: Alfred A. Knopf, 1980), pp. 27–33.
16. Minutes of a Meeting of the Secretaries of State, War, and Navy, October 10, 1945 (extracts), *FRUS*, 1945, II, pp. 55–57.
17. Minutes of a Meeting of the Secretaries of State, War, and Navy, October 16, 1945 (extracts), *ibid.* 1945, II, pp. 59–61; also see *The Forrestal Diaries*, pp. 110–112.
18. Minutes of a Meeting of the Secretaries of State, War, and Navy, October 23, 1945 (extracts), *FRUS*, 1945, II, pp. 61–62.
19. In the Department of State, Benjamin Cohen, Byrnes' legal advisor, and Leo Pasvolsky, chief architect of the United Nations prompted the Secretary on November 24 to initiate work on formulating the U.S. position by consulting with Britain and Canada and then with the Soviet Union. On Capitol Hill, Representative Helen Gahagan Douglas of California on November 23 introduced a resolution calling on the President to invite British and Soviet leaders to sponsor a joint proposal to the UN. On November 29, at the request of John W. Trischka and Richard Lyon, representatives of the Federation of Atomic Scientists, Senators Alexander Smith, Tobey, Taylor, Saltonstall, and Kilgore made representations at the White House to find out if the Soviet Union was invited to the Truman-Attlee-King conference. If the answer was negative, the senators planned to introduce Mrs. Douglas' resolution in the Senate. *The New World*, pp. 469–471; Alice Kimball Smith, *A Peril and A Hope; The Scientisits' Movement in America, 1945–47* [hereafter *A Peril and A Hope*] (Chicago: University of Chicago Press, 1965), pp. 222–225.

20. *The New World*, pp. 471–472.
21. Memorandum by an Informal Interdepartmental Committee, "Draft Proposals on Atomic Energy for Submission to Soviet Government," Washington, D.C., December 10, with annexed "Proposed Recommendation for the Establishment by the United Nations of a Commission to Deal With the Problems raised by the Discovery of Atomic Energy and Other Related Matters" and sub-annexed "Draft of U.S. Proposals on Exchange of Scientists and Scientific Data," *FRUS*, 1945, II, pp. 96.
22. Groves, Memorandum for the Secretary of War, Washington, D.C., 11 December 1945, enclosed with Patterson to Byrnes, same date, and Forrestal to Byrnes, same date, *FRUS*, 1945, II, pp. 96–98.
23. *The New World*, pp. 473–474, and quotation from *The Private Papers of Senator Vandenberg*, pp. 227–230.
24. Acheson to Byrnes, Washington, D.C., December 15, and Byrnes to Acheson, Moscow, December 17, 1945, *FRUS*, 1945, II, pp. 609–610; revised, final "United States Proposals on Atomic Energy," Moscow, December 18, 1945, *ibid.*, pp. 663–666; and the addition of the "separate stages" passage, *ibid.*, p. 692.
25. The Acting Secretary of State (Acheson) to the Ambassador in the Soviet Union (Harriman) [Truman to Byrnes], Washington, D.C., December 21, 1945, *FRUS*, 1945, II, pp. 709–710. For a detailed account, see *The Winning Weapon*, pp. 82–83.
26. Harriman to Acheson [Byrnes to Truman], Moscow, December 24, 1945, *FRUS*, 1945, II, p. 760.
27. Memorandum of Conversation [between Stalin and Byrnes], by the United States Delegation at the Moscow Conference of Foreign Ministers, Moscow, December 23, 1945, *ibid.*, p. 756.
28. United States Delegation Minutes of an Informal Meeting, Moscow, December 24, 1945, *ibid.*, pp. 762–763, 769.
29. Communique on the Moscow Conference of the Three Foreign Ministers, December 27, 1945, Washington, D.C., simultaneously released in Moscow and London, *ibid.*, pp. 815–825; Resolution of the General Assembly of the United Nations Establishing a Commission on Atomic Energy, London, January 24, 1946, in *Growth of a Policy*, appendix 10, pp. 132–133.
30. *The New World*, pp. 531–532.
31. Dean Acheson, "U.S. Policy Regarding Secrecy of Scientific Knowledge About Atomic Bomb and Atomic Energy," a memorandum to President Truman, September 25, 1945, *FRUS*, 1945, II, pp. 48–50, and quotation from *Present at the Creation*, p. 151.

32. *The New World*, p. 533; and quotation from Leslie R. Groves, "Our Army of the Future–As Influenced by Atomic Weapons," 2 January 1946, *FRUS*, 1946, I, (Washington, D.C.: 1972), pp. 1197–1203.
33. Leslie R. Groves, *Now It Can Be Told: The Story of the Manhattan Project* (London: Andre Deutsch, 1963), p. 411.
34. Of Lilienthal and Barnard, Groves, *ibid.*, p. 411, writes, they "had little or no knowledge of the subject whatsoever."
35. *A Report on the International Control of Atomic Energy*, 1946. Regarding the drafting, review and redrafting, see *The New World*, pp. 534–554.
36. In examining the transition period, the authors took into account how long the U.S. monopoly could last, and the U.S. position anticipated during the transition. Although there were "valid differences of opinion," it was generally admitted in the report that "during the next five to twenty years" the situation would have changed profoundly. The authors of the report could not specify the time needed for the period of transition even after the inauguration of the IADA. The plan would have reached "a reasonably full degree of operation in a period of years," the report said, if it was adopted and executed in good faith. One clue to the length of time that might have been estimated by individual members as needed for the execution of various steps in stages is a statement by Bush, who said that the control system was going to develop over a period of 10–15 years. Quoted in *The New World*, p. 546.
37. P. M. S. Blackett, *Fear, War, and the Bomb; Military and Political Consequences of Atomic Energy* [hereafter *Fear, War, and the Bomb*] (New York: Whittlesey House, McGraw-Hill, 1949), pp. 119–120. "The Franck Report," June 11, 1945, in *A Peril and A Hope*, appendix B, pp. 560–572.
38. *Ibid.*, pp. 457–458.
39. *The New World*, p. 536.
40. Memorandum by J. Robert Oppenheimer, Washington, D.C., February 2, *FURS*, 1946, I, pp. 749–754.
41. *Fear, War, and the Bomb*, p. 120.
42. *The New World*, pp. 545–546. David E. Lilienthal, *The Journals of David E. Lilienthal*, Vol. II, *The Atomic Energy Years, 1945–1950* [hereafter *The Atomic Energy Years*] (New York: Harper & Row, 1964), p. 27, notes that the board of consultants presented a scheme quite different from the Truman-Attlee-King declaration, and that most of the Acheson Committee were committed to a "step-by-step" program, while the Lilienthal scheme was "integral." (Entry for March 9, 1946).
43. Lilienthal, *The Atomic Energy Years*, p. 12, notes that the Truman-Attlee-King

declaration, and Byrnes' statement in London, prior to the UN resolution setting up the Atomic Energy Commission, that no international body could compel the U.S. to release atomic bomb information, implied that the U.S. would not supply facts until international safeguards had been established. "And yet," he rightly questions, "without supplying facts to other countries how could they know enough to discuss safeguards?" His belief was that "the facts are the beginning place for the development of any intelligent public policy." (Entry for January 22, 1946.) After the initial meeting with the Acheson committee, Lilienthal, p. 15, notes that he is trying to "emphasize the fundamental importance of the *facts*" [original emphasis]. Social progress, he writes, lies not in "dogma or abstract propositions" but in ascertaining "the facts" and evolving policies and action from them. (Entry for January 24, 1946.)

44. For an account of the second Dumbarton Oaks meeting between the Acheson committee and the Lilienthal board, March 16–17, see *The New World*, pp. 551–554.

45. There were other, unofficial plans on the control of atomic energy. One was a "Draft for a Convention on Atomic Energy," prepared by Quincy Wright in cooperation with members of the Atomic Scientists of Chicago and the Office of Inquiry into the Social Aspects of Atomic Energy of the University of Chicago. In this convention, the manufacture and use of atomic weapons was permitted "in pursuance of an explicit authorization by the [UN] Security Council or in reprisal because of manufacture of atomic weapons" or "if the Security Council fails to take appropriate measures, in reprisal because of use, or immediate danger of use, by another State," all in violation of the convention. (Article 42.) This provision represented a serious loophole, since the nations in a position to manufacture and use atomic weapons would be only those that are capable of doing so and the security of the rest of the family of nations could not be guaranteed unless all atomic weapons were renounced forever. Another draft convention was prepared by the Carnegie Endowment Committee on Atomic Energy. Its recommendations were considered by natural scientists as "more conservative" than the Lilienthal Report (*A Peril and A Hope*, p. 452), since it sanctioned the manufacture and actual use of atomic weapons by authority of the UN Security Council. For texts of "Draft for a Convention on Development and Control of Atomic Energy by the University of Chicago Committee" and "Draft Convention of the Carnegie Endowment Committee on Atomic Energy," see *International Conciliation*, No. 423, September 1946, pp. 397–407 and 408–435 respectively.

46. Harry S. Truman, *Memoirs*, II, *Years of Trial and Hope* (Garden City, New York: Doubleday, 1956), pp. 7–8; *The New World*, pp. 555–556.

47. *Ibid.*, p. 567; Bernard M. Baruch, *The Public Years* (New York: Holt, Rinehard

and Winston, 1960), p. 366.

48. *Ibid.*, p. 367; and the quotation from Baruch to Truman, June 6, 1946, *FRUS*, 1946, I, p. 839.
49. "Statement of United States Policy," June 7, 1946, annexed to "Memorandum by President Truman to the United States Representative on the Atomic Energy Commission (Baruch)", Washington, D.C., June 7, 1946, *FRUS*, 1946, I, pp. 846–851.
50. In the light of what Baruch emphasized in the U.S. proposals, it is instructive to note a few questions which on February 2, 1946 Openheimer regarded as "not profitable" to discuss at the time. The questions included the problem of sanctions that might be applied to serious violation of agreements. Related to these questions was the provision of "an adequate physical security" for installations operated by the internationsl authority and susceptible to diversion for military purposes, and also whether "stockpiling atomic weapons to facilitate the application of sanction" can achieve any useful purpose. Oppenheimer concluded that the discussion of these problems could not constructively contribute to the solution of the primary problems the Lilienthal board was asked to consider.