Michigan Law Review

Volume 55 | Issue 6

1957

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MICHIGAN LAW REVIEW

Vol. 55 APRIL 1957 No. 6

ATOMS FOR PEACE:

THE NEW INTERNATIONAL ATOMIC ENERGY AGENCY†

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ON October 26, 1956 seventy states signed an international agreement described as the Statute of an International Atomic Energy Agency. This signing followed a conference of over a month in which eighty-two states participated.[1] All of the participating states supported the text which resulted from this conference—a truly remarkable result considering that the subject of the conference was atomic energy with its far-reaching international security implications.

The International Atomic Energy Agency itself, when it comes into existence following ratification by the requisite number of states, in several respects will be unique among international organizations. In the first place, it combines two functions. It has the positive function of seeking "to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world."[2] Also, it has the negative function of

† The authors gratefully acknowledge the support of the Stanford Research Institute, Menlo Park, California, in the preparation of this article. The authors are indebted also to the University of Michigan Law School for providing research assistance.

Any views expressed in this article are the personal views of the authors and not necessarily the views of any agency of the United States Government.

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1 See Official Records of the 1956 Conference on the Statute of the International Atomic Energy Agency (hereinafter referred to as the Statute), IAEA/CS/OR.39, p. 2, for the unanimous adoption of the statute. The text of the statute is contained in booklet form in IAEA/CS/13. For the list of the states which signed the statute see IAEA/CS/OR.40, pp. 11-15.

2 Statute, art. II, first sentence.

insuring, "so far as it is able, that assistance provided by it or at its request or under its supervision or control, is not used in such a way as to further any military purpose."[3]

When President Eisenhower first launched the idea of the Agency in the United Nations on December 8, 1953, he indicated that one of its prime objectives should be to "begin to diminish the potential destructive power of the world's atomic stockpiles."[4] This envisioned utilizing the Agency to syphon off fissionable materials from wartime uses to peacetime uses.[5] Thus one function aims at raising standards of living; the other is directly related to the overall problem of disarmament.[6]

Another unusual feature of the Agency is that there will in fact be three different types of relationships between the Agency and its members. This is reflected in the statute, particularly in the provisions on the selection of the Board of Governors.[7] The first type of relationship will apply to those members which now produce substantial quantities of fissionable materials;[8] those states probably will not apply in the foreseeable future for any assistance whatsoever from the Agency.[9] The second type of relationship will involve the states that have substantial quantities

[3] Statute, art. II, second sentence.

[4] U.N. GENERAL ASSEMBLY OFF. REC., 8th Session (1953), Plenary Meetings, A/PV.470, p. 443 at 452, par. 122.

[5] The same thought was repeated by Mr. Lewis Strauss, Chairman of the United States Atomic Energy Commission, in the International Conference on the Statute. He expressed the hope that the creation of an International Atomic Energy Agency ". . . will divert important amounts of fissionable material from atomic bomb arsenals to the uses of benefit to mankind, and those amounts will steadily grow with the maintenance of peace. More tons of these materials will be devoted to welfare, fewer tons to weapons and warfare." IAEA/CO/OR.1, p. 11. However, see the United States note of May 1, 1954 handed by Secretary of State Dulles to Soviet Foreign Minister Molotov [in ATOMS FOR PEACE MANUAL, S. Doc. No. 55, 84th Cong., 1st sess., p. 274 (1954)] to the effect that ". . . this proposal [for an international atomic energy agency] was not intended as a measure for the control of atomic weapons. . . ."

[6] For the position of the Soviet Union on the relation between negotiations for the Agency and disarmament negotiations, see Appendix A, Appendix G and footnotes 63 and 109 infra.

[7] Statute, art. VI, par. A. For further discussion of the Board, see p. 750 et seq.

[8] The statute defines fissionable materials in Art. XX as follows:

"1. The term 'special fissionable material' means plutonium—239; uranium—233; uranium enriched in the isotopes 235 or 233; any material containing one or more of the foregoing; and such other fissionable material as the Board of Governors shall from time to time determine; but the term 'special fissionable material' does not include source material.

"2. The term 'uranium enriched in the isotopes 235 or 233' means uranium containing the isotopes 235 or 233 or both in an amount such that the abundance ratio of the sum of these isotopes to the isotope 238 is greater than the ratio of the isotope 235 to the isotope 238 occurring in nature." Cf. the definition of "special nuclear material" in §2014(t) of the United States Atomic Energy Act of 1954, 68 Stat. 921, 42 U.S.C. (Supp. III, 1956) §2011 et seq. (P.L. No. 703, 83d Cong., 2d sess., August 1954).

[9] This group includes the United States, the United Kingdom, Canada and the U.S.S.R.

of "source material" (uranium and thorium)[10] and therefore will be in a position to make contributions to the Agency as well as to receive benefits from the Agency.[11] This same category would include countries such as Norway, Sweden and the Netherlands which have developed considerable technical skills in the field of atomic energy but lack, at the present time, source materials. The third type of relationship will involve those members that have neither technical skills nor source materials. These states constituting most of the membership will derive benefits from the Agency but their contributions, if any, are likely to be much smaller than the benefits which they will derive.

While the states in this third category received texts of the draft statute as early as August 1955 and made suggestions both in the the U.N. General Assembly and to the negotiating states, they did not participate directly in the negotiations until the convening of the International Conference.[12] Many of the changes in the statute made at the conference resulted from their suggestions.[13]

Three drafts emerged successively during the negotiations:

1. The text of August 22, 1955 prepared by the initial negotiating group of eight states, referred to below as the eight-power draft;[14]

10 Art. XX of the statute defines "source material" in the following manner:

"3. The term 'source material' means uranium containing the mixture of isotopes occurring in nature; uranium depleted in the isotope 235; thorium; any of the foregoing in the form of metal, alloy, chemical compound, or concentrate; any other material containing one or more of the foregoing in such concentration as the Board of Governors shall from time to time determine; and such other material as the Board of Governors shall from time to time determine." Cf. the definition of "source material" in the U.S. Atomic Energy Act of 1954, 42 U.S.C. (Supp. III, 1956) §2014 (s).

11 E.g., France, the Union of South Africa, Belgium, Czechoslovakia, Portugal, Australia.

12 Ambassador Morehead Patterson, U.S. representative in the initial negotiating group, states in his Report to the President:

"Many comments have been received either through communications to the State Department or through statements made in the recent debate on this subject in the Tenth General Assembly. These comments indicate that differences in viewpoints as disclosed to date are mainly concentrated on a few points such as: a) composition and manner of selection of the Board of Governors of the Agency; b) relationship of the Agency to the United Nations; c) procedures for approval of the budget and prorating among States of operating expenses. The United States and the other negotiating States have sought to give full consideration to the viewpoints expressed by all of the States." 34 DEPT. OF STATE BUL. 5 at 6 (1956).

13 The vast majority of the amendments to the statute offered at the International Conference were proposed by these states. Approximately half of the amendments brought to vote at the Conference were adopted. For a list of amendments and their authors see IAEA/CS/INF.4/Rev. 1, dated October 3, 1956.

14 Published in 33 DEPT. OF STATE BUL. 666-672 (1955).

2. The text of April 18, 1956 prepared by the enlarged negotiating group of twelve states, referred to as the twelve-power draft;[15] and

3. The final text approved by the International Conference.[16]

Separate and parallel negotiations were carried on between the United States and the Soviet Union until the Soviet Union joined in the negotiating group of twelve in November 1955.[17]

Membership

The initial membership of the Agency is limited to states which are members of the United Nations or of any of the specialized agencies which sign the statute within the specified period and ratify it.[18] As a practical matter, all states are eligible for initial membership excepting the Chinese Communist regime, North Korea, East Germany, Outer Mongolia and Viet Minh. These regimes are now members neither of the United Nations nor of any of the specialized agencies. States other than the initial members may become members "after their membership has been approved by the General Conference upon the recommendation of the Board of Governors."[19]

Organs of the Agency

The Agency has three organs: the General Conference composed of all members,[20] the Board of Governors[21] and the staff headed by a director general.[22] The negotiators at an early stage concluded that in distributing responsibility among these three organs, the Board of Governors would be given preponderant authority.[23] This conclusion was due to the fact that the great

15 Annex III of the Report of the Working Level Meeting on the Draft Statute of the International Atomic Energy Agency, Doc. 31, Washington, D.C., July 2, 1956; also IAEA/CS/3, September 10, 1956, as corrected by IAEA/CS/3/Corr. 1 and IAEA/CS/3/Corr. 2.

16 See note 1 supra.

17 See Appendix A below.

18 Statute, art. IV, par. A. The statute was opened for signature on October 26, 1956. Statute, art. XXI, par. A.

19 Statute, art. IV, par. B. This provision also applies to members of the United Nations or one of the specialized agencies which have not signed the statute within ninety days after it was opened for signature. See Appendix B.

20 Statute, art. V.

21 Statute, art. VI.

22 Statute, art. VII.

23 See the remarks of Mr. Morehead Patterson in his Report, 34 DEPT. OF STATE BUL. 5 at 6 (1956): "It was clear that the membership as a whole could not deal with the day-to-day technical problems which would confront the Agency. Therefore, we provided in the Statute for a Board of Governors with broad authority to make most of the necessary

bulk of contributions to the Agency would come from the very few states that had fissionable materials or large resources of uranium. These states, which were the only negotiators of the earlier drafts, were sure to play a large role on the Board of Governors. As the group of negotiating states broadened, the powers of the General Conference vis-a-vis the Board of Governors have increased. This was in response to the strong views expressed by many states, particularly in the General Assembly and the International Conference.[24]

From the very outset of the negotiations, the General Conference was given control over the purse strings.[25] The budget of the Agency required the approval of the General Conference.

Among the additional powers granted to the General Conference at the recent International Conference is the authority to make "decisions" (as distinguished from recommendations) on matters referred to it by the Board.[26] If this amounts to a delegation

decisions for the Agency. The membership as a whole — described in the Statute as the General Conference — maintains its control over the Board of Governors through election of a number of its members and through complete control over the purse."

See also the 8-power draft, which already provided (in art. VII, par. H), "The Board of Governors shall be charged with complete authority to carry out the functions of and determine the policies of the Agency in accordance with the present Statute subject to its responsibilities to the General Conference. . . ."

[24] Already in the debates in the Ninth General Assembly (in 1954) some delegations called for increased participation by underdeveloped countries in the drafting of the statute. E.g., Mr. Barrington (Burma) said that "it was to be regretted that Asia and Latin America had not been called upon to take part in the organization of the international agency. . . ." U.N. GENERAL ASSEMBLY OFF. REC., 9th Session (1954), First Committee, A/C.1/SR.723, p. 371 at 372. Similar objections were made by Mr. Menon (India). Id., A/C.1/SR.725, p. 381. Increased representation of the "have-nots" on the proposed board as well as in the negotiations was advocated by a number of countries in the Tenth General Assembly (1955). See particularly *Syria,* U.N. GENERAL ASSEMBLY OFF. REC., 10th Session (1955), First Committee, A/C.1/SR.764, p. 39 at 43; *Indonesia,* id., A/C.1/SR.765, p. 45 at 47; *Israel,* id., A/C.1/SR. 765, p. 45 at 48; *Liberia,* id., A/C.1/SR.766, p. 53 at 55; *India,* id., A/C.1/SR.768, p. 63 at 65. The Indonesian representative said: "I have already cautioned against repeating the inequalities of the earlier industrial revolution, with its sharp division between the 'haves' and the 'have-nots', between the producers of manufactured goods and the suppliers of raw materials. . . . It is our sincere hope that the governing body of the agency will, in the first place, be founded on the principle of equitable geographic distribution. This means, naturally, that the Asian, African and Latin American Continents must be adequately represented on this body." Id., A/C.1/PV.765, pp. 22-23. In regard to the position of the underdeveloped countries see also William R. Frye, "Atoms for Peace: 'Haves' Vs. 'Have-Nots'" in 35 FOREIGN POLICY BUL. 41 (1955).

[25] See art. VI, par. D, subpar. 5, and art. XVI of the eight-power draft; art. V, par. D. subpar. 5, and art. XIV of the twelve-power draft.

[26] Statute, art. V, par. F, subpar. 1. This provision was part of an Indonesian-Pakistanian amendment (IAEA/CS/Art. V/Amend. 8). Mr. Ahmad (Pakistan) stated: "This amendment has been submitted with the idea of giving greater authority to the General Conference within the scope of the present statute. . . . If . . . there is any matter on which the Board of Governors is unable to arrive at a decision or on which it may definitely and explicitly want the opinion or the decision of the General Conference, then we

of decision-making authority it may be of practical importance particularly in the event of the inability of the Board to decide upon a course of action. The General Conference was also given the authority to "discuss any questions or any matters within the scope of this Statute or relating to the powers and functions of any organs provided for in this Statute, and may make recommendations to the membership of the Agency or to the Board of Governors or to both on any such questions or matters."[27] This language follows closely article 10 of the United Nations Charter concerning the powers of the United Nations General Assembly. While the Board of Governors still makes final decisions on most matters and while the powers of the General Conference are confined to those expressly granted to it in the statute, nevertheless, this authority of the General Conference to make recommendations is significant. The Board of Governors is certain to give the greatest weight to the recommendations of the General Conference. The legislative history raises some doubt whether the authority to make "recommendations to the membership" means only general recommendations applicable to all members or whether it includes also specific recommendations directed to an individual member. The authority to make recommendations of the latter type would provide a rather powerful means of pressure on individual members.[28]

think that instead of the present phraseology, the General Conference should be authorized to take decisions on those matters which are specifically referred to it by the Board." IAEA/CS/OR.18, p. 46. Mr. Surjotjondro (Indonesia) remarked that ". . . the insertion . . . will add a very useful constitutional provision for a matter which we are justified in anticipating will come up in the course of the operation of the agency." IAEA/CS/OR.19, p. 9.

This amendment was adopted by 63 votes to 1, with 14 abstentions. IAEA/CS/OR.22, p. 46.

27 Statute, art. V, par. D. This addition also originated in the amendment proposed at the Conference by Indonesia and Pakistan. IAEA/CS/Art. V/Amend. 8. In regard to this amendment Mr. Michaels (United Kingdom) said: ". . . [W]e recognize that perhaps the arrangements in the Agency should be brought a little more closely into line with those which now apply to the United Nations as a whole." IAEA/CS/OR.18, p. 38. The Pakistanian representative remarked: "This paragraph . . . is taken from the Charter of the United Nations where the powers of the General Assembly *vis-a-vis* the special organs of the United Nations are defined. . . . By the introduction of this new paragraph, the powers of the General Conference . . . would be widened." IAEA/CS/OR.18, pp. 44-45. The Czechoslovak representative remarked: "Views that the General Conference should be an organ with decisive authority in matters concerning the Agency's activities have been expressed by many Governments in their comments on the original draft, as well as in the opening statements of many delegations at our Conference." IAEA/CS/OR.18, p. 41. The amendment was adopted by 76 votes to none, with 4 abstentions. IAEA/CS/OR.22, p. 42.

28 The importance of this new wording seems to lie in the power to make recommendations to the *membership* of the Agency, because the former art. V, par. E, subpar. 1, of the 12-power draft had already provided for the power "to make recommendations to

This increase in the powers of the General Conference[29] as the negotiations progressed[30] is reminiscent of the United Nations where the authority of the General Assembly was considerably increased at the San Francisco conference in contrast to the original Dumbarton Oaks proposals worked out by the great powers with emphasis upon the functions of the Security Council.[31]

the *Board of Governors* on any matter relating to the functions of the Agency." Emphasis added. (The phrasing "within the scope of this Statute or relating to the powers and functions of any organs" does not seem to differ substantially from "relating to the functions of the Agency.")

The amendment in its original form used the words "to the *members.*" Emphasis added. Mr. Michaels (United Kingdom) argued against this on the ground that a situation should be avoided in which the General Conference would make recommendations to individual member states which were in conflict with arrangements made by the Board, and that therefore the term "membership" rather than "members" should be used. See IAEA/CS/OR.18, p. 38. The Mexican representative said: "As we understand it, the United Kingdom representative proposes that the General Conference should be given authority to address recommendations to the members of the Agency as a whole, and not to an individual member or group of members. If that understanding is correct, the result, in our opinion, would be to restrict the powers and functions of the General Conference. The provision would lose any practical value." IAEA/CS/OR.19, p. 17. The Chairman of the Conference stated before the amendment was brought to vote: "I understand that the sponsors of this amendment will accept the proposed substitution of the words 'to the membership' for the words 'to the members'." IAEA/CS/OR.22, p. 41.

[29] See Appendix C below.

[30] This progress is described by Mr. Michaels (United Kingdom) in the following manner:

"I would point out to the Committee that the original draft of this statute, which was circulated in August 1955, gave the Board of Governors a very large degree of direct responsibility, not only in carrying out, but in initiating and approving the policies to be followed by the Agency. A number of countries criticized this arrangement because they felt that on certain broad matters of policy affecting the actions of the Board they should be more closely subordinated to the over-all direction of the General Conference. The twelve-power negotiating group, at its meeting in March of this year, took these criticisms very seriously, and, although I will not enumerate them here, a number of very substantial changes were made to meet the views expressed. . . . [T]he article as it now stands describes reasonably satisfactorily the relative field of responsibility of the Board and the General Conference. To try to give the General Conference the attributes of the executive organ of the Agency, for which by its very nature it is not fitted, would, in view of my delegation, lead only to inefficiency and misunderstanding. It would leave the Board without effective influence or authority. As was pointed out by the representative of Portugal, the operation of the Agency undoubtedly would require decisions which cannot wait a year between meetings of the General Conference." IAEA/CS/OR.18, pp. 36-37.

[31] Compare chapter V, sec. B, of the proposal for the Establishment of a General International Organization [Dumbarton Oaks, Washington, October 7, 1944, 11 DEPT. OF STATE BUL. 368 (1944)] with arts. 10, 11 and 14 of the Charter of the United Nations. For the history of this development see BENTWICH AND MARTIN, A COMMENTARY ON THE CHARTER OF THE UNITED NATIONS 35 (1950), and Gilchrist, "The United Nations Charter with Explanatory Notes of Its Development at San Francisco. . . ," in 413 INTERNATIONAL CONCILIATION 452-454 (1945).

The most difficult and controversial question which arose in the negotiations prior to the International Conference was the composition and manner of selection of the Board of Governors.[32]

A number of formulae for the composition of the Board were considered and rejected. At one time, a system of weighted voting based on contributions was suggested but was discarded largely because of the technical difficulties of evaluating the contributions in different types of materials. The advisability of granting permanent seats to the most advanced atomic powers was also studied and rejected because of the impossibility of developing long-term criteria for permanent membership.[33] As the number of negotiating powers increased, the proposed number of the Board members increased. The additional seats would be filled mainly by "atomic have-nots" thus diluting the influence of the "atomic powers" in the Board. The debate in the United Nations General Assembly created pressures in this direction.[34]

The twelve-power draft and the final text provide for a Board of 23 of which 10 will be elected by the General Conference.[35] The remaining 13 will be chosen by the outgoing board on the basis of (a) their potential for contributions in materials and skills, and (b) a pattern of geographic representation for the major regions of the world. The top five "atomic powers"[36] may claim what amounts in fact to a permanent membership as long as they retain their leading position in the atomic energy field—regardless of whether they actually contribute to the Agency and regardless of any geographic criteria.[37]

32 Concerning the Board, the original outline of the statute transmitted to the Soviet Union on March 19, 1954 (see Appendix A) provided in art. II, par. C, subpar. 1, for a "limited membership" representing governments in which it "might be desirable to take account of geographic distribution and membership by prospective beneficiaries," and that "the principal contributors would be on the Board of Governors."

33 See Report by Ambassador Morehead Patterson, 34 DEPT. OF STATE BUL. 5 at 6 (1956). Art. II, par. C, subpar. 2 of the first American outline [ATOMS FOR PEACE MANUAL, note 5 supra, at 267] stated that "arrangements could be worked out to give the principal contributing countries special voting privileges on certain matters, such as allocations of fissionable material."

34 See note 24 supra.

35 Art. VI, par. A, subpar. 3 of the 12-power draft and identical article in the statute. The membership of the Board will be twenty-three, on the assumption that "the five members most advanced in the technology of atomic energy" continue to be the United States, United Kingdom, U.S.S.R., Canada, France, or continue to represent three geographic areas. If the five represented more or fewer than three areas, it would change the size of the Board. The 8-power draft in art. VII, par. A provided for a Board of 16. Five of the members would be the most important contributors of technical assistance and fissionable material, five others selected from the principal producers and contributors of source materials, and only six were to be elected by the General Conference.

36 At present the United States, the Soviet Union, the United Kingdom, France and Canada.

37 See Appendix D below.

Despite widespread criticism in the International Conference of the composition of the Board and despite a number of amendments suggested particularly by the Afro-Asian powers to increase their representation on the Board, the provisions of the twelve-power draft were adopted without change by the conference.[38] All the negotiating powers including the Soviet representative urged strongly that no change be made in the formula on the ground that no better formula could be contrived in view of the political realities.[39]

However, two concessions were made to the critics of this formula. First, it was provided that the question of a general review of the provisions of the statute should be placed on the agenda of the fifth annual session of the General Conference.[40] In the debate, it was made clear that the composition of the Board would be included in such review. In particular, the special representation of the producers of source materials would be reconsidered since many additional states during the next five-

38 Seven amendments to art. VI were proposed, five of them dealing with the composition and selection of the members of the Board. These five amendments were sponsored respectively by: *Denmark and Iran,* IAEA/CS/Art. VI/Amend. 2; *Philippines,* IAEA/CS/Art. VI/Amend. 4; *Liberia,* IAEA/CS/Art. VI/Amend. 5; *Egypt, Ethiopia, Indonesia and Syria,* IAEA/CS/Art. VI/Amend. 6; and *Italy,* IAEA/CS/Art. VI/Amend. 7. None of these amendments was adopted. Amendments 2 and 7 were withdrawn. Amendment 4, though not formally withdrawn, was not pressed to a vote. Amendment 5 was rejected by 31 to 15 votes, 20 abstaining. Amendment 6 was rejected by 26 to 26 votes with 18 abstaining. (Amendments 5 and 6 attempted to increase the participation of Africa and the Middle East.) Art. VI as a whole was adopted by 71 votes to 1, with 3 abstentions.

39 The Soviet representative, Mr. Zarubin, said: "The draft article before the Committee seems to be the reasonable compromise. . . . [I]n a spirit of co-operation the delegation of the Soviet Union has decided not to move any amendments to draft article VI. . . . [T]he delegation of the Soviet Union hopes that the same spirit of co-operation will prevail among other delegations, and it appeals to all to accept article VI of the draft statute at it stands." IAEA/CS/OR.20, p. 3.

Mr. Wadsworth, U.S. representative, agreed. "As the representative of the Soviet Union has just said, since the outset of the negotiations on the statute over two years ago, the question of the Board has presented arduous and complicated problems. It was only with considerable difficulty that agreement was reached among the original eight Negotiating States on the formula which was contained in the draft statute of 22 August 1955. . . . [S]ince this formula represents a finely balanced compromise, even one small part cannot be changed without affecting the whole." IAEA/CS/OR.20, pp. 4-6.

Mr. Bhabha, representative from India, remarked: ". . . [W]e recognize that the composition as set up in the present draft has been arrived at by give and take on all sides, and we cannot, therefore, expect to have those particular articles changed that we do not agree with without, naturally, others also asking for a change in articles with which they do not agree. We are, therefore, prepared to accept this article as it now stands and to support it." IAEA/CS/OR.20, p. 12.

40 Statute, art. XVIII, par. B. Interesting to recall is the analogy to the United Nations Charter: The critics of the Great Power veto at the San Francisco conference were placated in part by the inclusion in the Charter of a provision for a review and revision of this instrument (art. 109 of the Charter). See GOODRICH AND HAMBRO, CHARTER OF THE UNITED NATIONS, COMMENTARY AND DOCUMENTS, 2d ed., 539-540 (1949).

year period were likely to become large scale producers of either uranium or thorium.

The second concession was the selection of all six elected representatives on the Preparatory Commission from the Afro-Asian and Latin American group.[41]

Functions of the Agency

A. *Peaceful vs. Military Purposes.* All Agency functions relate solely to the utilization of atomic energy for *peaceful* purposes. The Agency is directed to ensure, "so far as it is able," that its assistance is not used in such a way as to further any "military purpose."[42]

During the International Conference, France introduced an amendment defining "military purpose" as follows: "The only uses of atomic energy which shall be regarded as uses for non-peaceful purposes are military applications of the atomic explosion and of the toxicity of radioactive products."[43] This amendment seems to be based on the conclusion that the greatest menace to the world from the military use of the atom arises as a result of nuclear explosions and from the toxicity of radioactive materials. The concept of "military purpose" thus would be limited to these uses only and would not include for instance the use of nuclear fuel in the propulsion of a submarine, an aeroplane or a missile; the menace from these latter uses is not much greater than that arising from the use of conventional fuels for similar objectives. Under the French amendment the use of power derived from atomic fuel in a munitions plant, for instance, would not constitute a military use.

In urging the adoption of a restrictive definition of "military purposes" the Indian representative suggested that any state having a military program should be ineligible for any Agency assistance since, for instance, material made available to such state, under Agency safeguards, for its non-military program would release corresponding materials for its military program.[44]

During the conference, it became apparent that any attempt to define "military purpose" in the statute would raise more problems than it would solve. France never brought its amend-

41 See Appendix E.
42 Statute, art. II, second sentence.
43 IAEA/CS/Art.XX/Amend. 1.
44 IAEA/CS/OR.28, pp. 66-67.

ment to a vote.[45] It would not have been desirable for the Agency to adopt a definition that by implication would sanction, for example, the use of Agency assistance for an atomic submarine. The present text sets up a broad standard under which the Board of Governors will have to develop criteria applicable to specific situations as they may arise.

B. *Atomic Power.* From the beginning of the negotiations, recognition has been given to the principle that the Agency shall have a broad responsibility for *all* phases of development of the peaceful uses of atomic energy. However, the portion of President Eisenhower's address to the General Assembly of December 8, 1953 that had the greatest effect on public opinion throughout the world was his statement that ". . . peaceful *power* from atomic energy is no dream of the future. That capability, already proved, is here—now—today."[46] Thus, the function of the Agency which has received the greatest public attention is to furnish atomic fuel for the production of electric power. The functions of the Agency, however, extend to many other matters such as research, training, exchange of information and development of standards of health and safety.[47]

C. *Training and Research.* The final text reflects the importance of the function of training—a recognition that the absence of trained technicians and engineers may be the greatest obstacle to early development of worldwide electric power derived from atomic fuels.[48] The Agency may wish to place great emphasis in its early years on the subject of training.[49]

[45] France withdrew its amendment with the understanding that its substance should be considered by the Preparatory Commission. IAEA/CS/OR.36, p. 33. There also was a proposed revision of the French amendment submitted by India. See Conference Room Paper No. 17. This revision read: "Any military purpose shall mean the production, testing or use of nuclear, thermonuclear and radiological weapons." This revision also was withdrawn, the Indian delegate commenting: "We agree that this matter should be noted in the future and we do not wish at this stage to press this particular amendment to a vote." IAEA/CS/OR.36, p. 34.

[46] ATOMS FOR PEACE MANUAL, note 5 supra, at 5.

[47] See Statute, art. III.

[48] Note, e.g., the inclusion of the words "and training" in art. III, par. A, subpar. 4 of the statute, which originated in a Polish amendment. IAEA/CS/Art. III/Amend. 2/Rev. 1. This addition was adopted by 78 votes. IAEA/CS/OR.22, p. 11.

[49] A number of amendments were proposed during the conference which would provide for specific activities of the Agency, such as the amendments submitted by Bolivia and Ecuador to establish a world university of the atom (IAEA/CS/Art. III/Amend. 9), the Haitian amendment to provide for granting scholarships by the Agency (IAEA/CS/Art. III/Amend. 1), and the Polish amendment to publish an international periodical devoted to the peaceful uses of atomic energy (IAEA/CS/Art. III/Amend. 2/Rev. 1). These amendments were all defeated on the ground that the functions of the Agency should be general

It should be noted that the Agency is authorized to encourage and assist research and "to perform any operation or service useful in research."[50] While there is no express provision authorizing Agency research,[51] it is doubtful whether the Agency could successfully carry out its safeguard, and health and safety functions or attract qualified personnel without some research program.

D. *Health and Safety Standards.* The Agency has broad functions in the field of health and safety. It is authorized "to establish or adopt. . . standards of safety for protection of health and minimization of danger to life and property (including such standards for labour conditions). . . ." It may "provide for the application of these standards to its own operations as well as to the operations making use of materials, services, equipment, facilities, and information made available by the Agency or at its request or under its control or supervision. . . ."[52] As in the case of safeguards against diversion of materials, it may also "provide for the application of these standards, at the request of the parties, to operations under any bilateral or multilateral arrangement, or at the request of a State, to any of that State's activities in the field of atomic energy. . . ."[53] States receiving Agency assistance must agree to meet Agency health and safety standards.[54]

The authority of the Agency to prescribe such standards is not confined to the type of hazards peculiar to operations utilizing nuclear materials. Likewise there is nothing to prevent the Agency from applying to operations coming under its jurisdiction far more stringent standards than the country where the operation takes place applies to its operations. In such an event, as a practical matter, the Agency would probably have to rely for enforcement of these higher standards on its own inspectors. It could not readily utilize the local authorities even in policing non-radiological hazards if those authorities applied different and less stringent standards.

and the decision on specific activities should be left to the Board of Governors. (E.g., the argument of Mr. Wadsworth, representative of the United States in IAEA/CS/OR.16, p. 17).

50 Statute, art. III, par. A, subpar. 1.

51 The first United States outline (see Appendix A) mentioned "data developed as a result of its own activities" (art. III, par. C, subpar. 2), which would imply independent research by the Agency. In the later drafts no such clause can be found. However, there is nothing in the statute to prohibit research by the Agency as long as it is for peaceful uses and furthers the purposes of the statute.

52 Statute, art. III, par. A, subpar. 6.

53 Ibid.

54 Statute, art. XI, par. F, subpar. 4(b); and art. XII, par. A, subpars. 1 and 2.

It would seem advisable for the Agency in setting up the standards in this field to cooperate as fully as possible with the state where the facility is located; in general, the Agency should insist on more rigorous standards than those prescribed by local laws only in the interest of preventing hazards affecting more than one state (for example, reactor incidents which would contaminate a considerable area or waste disposal affecting international waterways).[55]

Health and safety standards and practically every function of the Agency, excepting the procurement and disposal of materials and the operation of the safeguard system against diversion, is of some concern to various specialized agencies of the United Nations. This makes it essential that there should be a clear-cut division of functions.

The Secretary General of the United Nations in a study of the question of the relation of the International Agency to the United Nations[56] recognizes this situation and suggests as one of the principles of that relationship "recognition by the United Nations of the International Atomic Energy Agency as the agency, under the aegis of the United Nations. . ., responsible for taking action under its Statute for the accomplishment of the objectives set forth therein."[56a] If this principle is carried out, the present and prospective programs of some of the specialized agencies in the atomic energy field may be considerably curtailed.[57]

E. *Exchange of Information.* The Agency is to disseminate the information obtained from the members and encourage the exchange of information among them. The statute differentiates between information arising from assistance extended by the Agency and other information. With respect to the former "Each member *shall* make available to the Agency" all such information.[58] The obligation in connection with information from other sources is much less sweeping: each member "*should* make available such information as would *in the judgment of the member* be helpful to the Agency."[59] This latter loose undertaking and the obligation

55 For a discussion of analogous problems arising from federal v. state regulations in this field, see STASON, ESTEP AND PIERCE, STATE REGULATION OF ATOMIC ENERGY, published under the auspices of the University of Michigan Law School, Ann Arbor (1956).

56 General Assembly Document A/3122 of April 20, 1956, reproduced in IAEA/CS/5, September 24, 1956.

56a Id. at par. 4.

57 See Appendix F.

58 Statute, art. VIII, par. B (emphasis added).

59 Statute, art. VIII, par. A (emphasis added).

to share in the administrative budget seem to be the duties which a member assumes through signing and ratifying the statute. Other obligations arise only in connection with specific agreements between the member and the Agency concerning the receipt of benefits, contributions to the Agency or the application of safeguards on request.

Under article III, paragraph A, subparagraph 5 of the statute, it would be possible to extend the Agency safeguards system into the field of information. Theoretically, therefore, the United States and other governments could turn over classified data to the Agency.[59a] As a practical matter, this is unlikely to happen since data available to the Agency will generally become available to all of its members.

The Director General and the staff of the Agency are required not to "disclose any industrial secret or other confidential information coming to their knowledge by reason of their official duties for the Agency." This provision was included by the Conference on the initiative of Switzerland.[60]

Agency Facilities

The Agency is authorized "to acquire or establish any facilities, plant and equipment useful in carrying out its authorized functions, whenever the facilities, plant and equipment otherwise available to it in the area concerned are inadequate or available only on terms it deems unsatisfactory."[61] This emphasizes a more gradual acquisition of facilities than another provision that "the Agency shall as soon as practicable establish or acquire" *storage* facilities and certain types of other facilities.[62] These provisions are the end product of discussions which commenced on the day of President Eisenhower's address as to whether the Agency should be "a bank"—should have actual possession of fissionable materials—or a "clearing house" merely arranging as an intermediary for the international distribution of fissionable materials from one country to the other. The statute clearly authorizes the Agency to be a "bank" and contemplates such a result. The Agency may, however, operate also as a "clearing house."

[59a] For the provisions of U.S. law, see 42 U.S.C. (Supp. III, 1956) §§2164, 2153, 2154 (Atomic Energy Act of 1954, P.L. 703, note 8 supra, §§144, 123, 124).

[60] Statute, art. VII, par. F. IAEA/CS/Art. VII/Amend. 5/Rev. 1, adopted in revised form (Conference Room Paper No. 4) by 76 votes to none. IAEA/CS/OR.26, p. 12.

[61] Statute, art. III, par. A, subpar. 7.

[62] Statute, art. IX, par. I.

Agency Safeguards

There were three possible ways of dealing with the problems of safeguards against diversion of fissionable materials to military uses. First, international transfer of fissionable materials for peaceful uses might have taken place without any safeguards. The result of this course would have been that in a short time many states would have been in a position to develop atomic weapons.[63] It certainly would not be in the interest of world peace if a large number of states were in a position to use or threaten to use atomic weapons. There is less danger when three states have atomic weapons than when more than eighty states have them. In this respect, it is possible that the interests of the United States and of the Soviet Union might coincide.

A second possible course would have been to delay the development of the peaceful uses of atomic energy because of the danger to world peace through diversion to military purposes. In view of the rapid worldwide increase in power requirements and imminent shortages of conventional fuels any such course would have inevitably handicapped efforts to improve world standards of living.

The statute follows a third and middle course which permits the development of peaceful uses with safeguards designed to deter the development of new weapons programs. The success of the system of safeguards will depend on a wide variety of factors including technological and political developments.

The statute establishes the basic principle that safeguards will be *imposed* only in connection with agreements between the Agency and states which are beneficiaries of Agency projects.[64]

63 The possible increase of the production of atomic weapons resulting from peaceful uses was used by the Soviet Union as an argument against international cooperation in the field of peaceful uses of atomic energy. See, e.g., the Aide Memoire of September 22, 1954 in the ATOMS FOR PEACE MANUAL, note 5 supra, 278 at 281.

64 Art. XI, par. F of the statute reads (in part): "Upon approving a project, the Agency shall enter into an agreement with the member or group of members submitting the project, which agreement shall: . . . 4. Include undertakings by the member or group of members submitting the project (a) that the assistance provided shall not be used in such a way as to further any military purpose; and (b) that the project shall be subject to the safeguards provided for in art. XII, the relevant safeguards being specified in the agreement. . . ." The Agency could not waive the inclusion of the safeguard provision in the project agreement. See art. XI, par. F, subpar. 4, and art. III, par. D referring to "agreements . . . which *shall* be in accordance with the provisions of the statute." (Emphasis added.) What would be the situation if the safeguards specified in the agreement are for some reason less stringent than the "relevant" safeguards specified in article XII? Could the Agency under article XII nevertheless enforce the "statutory" safeguards? There may be some support for an affirmative answer in the language of the statute and particularly in the fairly detailed enumeration of the safeguards therein. However, such detailed enumeration may well have been due solely to the desire to avoid complaints on the part

States do not submit to the system of safeguards merely by ratifying the statute. A further step is essential.

The Soviet Union during the negotiations has on the surface at least made a complete about-face in its attitude toward safeguards. Pointing to the fact that weapons grade plutonium is a necessary by-product of the operation of every power reactor the Soviet Union initially opposed all safeguards (and for that matter any agency dealing with quantities of fissionable materials) in the absence of a prohibition of atomic weapons. Gradually the Soviet Union altered its position until it accepted the present provisions of the statute with some vague warnings about infringement of sovereignty through operation of the inspection system.[65]

It is possible that the changed attitude was influenced by the discussions on the subject of safeguards which took place in Geneva in August 1955 immediately following the United Nations Scientific Conference. The exchange of notes between the United States and the Soviet Union on this subject indicates the probability of further bilateral discussions with the Soviet Union on the problem of safeguards.[66]

The statute elaborates in considerable detail the Agency safeguards[66a] which include the right of the Agency

1. To approve the design of specialized equipment and facilities, including nuclear reactors;
2. To require the observance of Agency prescribed health and safety measures;

of beneficiary states that the proposed project agreements worked out by the Board bore no relation to the obligations which they thought they assumed when they signed the statute. It was agreed among the eight negotiating states that some provisions specifying the nature of the safeguards should be included in the statute. These provisions were vastly expanded and improved in subsequent drafts.

[65] See Appendix G.

[66] The Soviet Union in its Aide-Memoire of July 3, 1956 (in United States Department of State Press Release No. 527, Oct. 6, 1956, p. 28) stated that "the consideration of this problem [of the extension of the Agency safeguards to bilateral agreements] could be resumed after the statute is adopted by the Conference and after it is ratified by the countries involved." In its answer of August 15, 1956 (id. at 29, 30), the United States pointed to the fact that it will take some time until the Agency safeguards will be operative and that the United States Government is therefore interested in standardizing the already existing safeguards. Mentioning the statement of the Soviet Union that it had already initiated a program for rendering assistance to a number of states and that the same was true with respect to the United Kingdom and Canada (France having similar plans), the Department of State, in the interest of assuring the effectiveness of the Agency proposed an early commencement of staff level talks to explore the possibility of reaching uniform safeguards for bilateral agreements not less comprehensive than the present ones of the Agency. The United States aide-memoire also mentioned that Canada, France and the United Kingdom indicated their interest in participating in such talks.

[66a] Statute, art. XII, par. A, subpars. 1-6.

3. To require the maintenance and production of operating records;

4. To call for and receive progress reports;

5. To exercise stringent controls over the operations connected with production of power where diversion of fissionable materials to weapons can most readily take place;

6. To establish a system of inspection through a staff of international inspectors.[67]

The statute deals in some detail with remedies in the event of non-compliance with the safeguard requirements.[68] Inspectors shall report any non-compliance to the Director General who shall transmit the report to the Board of Governors. The Board shall call upon the recipient state to remedy forthwith any non-compliance which it finds to have occurred. The Board shall report the non-compliance to all members and to the Security Council and General Assembly of the United Nations. If the non-compliance constitutes a potential or actual threat to international peace, the Security Council could exercise its considerable powers under the United Nations Charter assuming, of course, that the five permanent members agree. The General Assembly might also exercise its recommendatory authority on the basis of the report of the Board.[69]

In the event of non-compliance, the Board may direct curtailment or suspension of assistance provided by the Agency and call for return of materials and equipment made available to the recipient member. Obviously, the "recapture" of misused material would depend ultimately on the cooperation of the recipient state. The Agency may also suspend the non-complying member from exercise of the rights and privileges of membership.[70]

[67] For the functions of the inspectors see art. XII, par. A, subpar. 6, par. B and par. C of the statute. The inspectors supervise the compliance with health and safety standards and safeguards against diversion both in the Agency facilities and in the facilities of its members under project and other agreements.

[68] Statute, art. XII, par. C, and par. A, subpar. 7. The purpose of art. XII, par. A, subpar. 7 is not at all clear in view of the almost identical provision in art. XII, par. C.

[69] For full discussion of the powers of the Security Council and the General Assembly in this respect see GOODRICH AND SIMONS, THE U.N. AND THE MAINTENANCE OF INTERNATIONAL PEACE AND SECURITY (1955).

[70] Statute, art. XII, par. C, and art. XIX, par. B. Since the suspension can only take place in accordance with art. XIX, it seems that all the requirements of par. B of art. XIX must be present, namely, *persistent* violation of the statute or agreements, unless art. XII, par. C can be read as providing for an independent basis for suspension in accordance with the *procedure* laid down in art. XIX.

It would seem that the finding of non-compliance by the Board may serve as a basis for immediate withdrawal of any Agency assistance and for other remedial measures. The state affected will no doubt be given full opportunity to present its defense. However, it would appear that under the statute such a state does not have the right to avoid or delay the remedial measures by invoking the procedure for settlement of disputes discussed below.[71]

The provisions for sending inspectors designated by the Agency "after consultation" with the state involved into territories of recipient states permit access of these inspectors "at all times to all places and data and to any person who by reason of his occupation deals with materials, equipment, or facilities. . . to be safeguarded, as necessary to account" for the materials, to check on compliance with health and safety measures and other conditions of the Agency projects agreements.[72] These are truly unprecedented inspection powers which apply regardless of the type or extent of Agency assistance. Yet, these provisions resulted in relatively little controversy during the International Conference.[73] They may, however, cause considerable difficulty when the time comes to apply them. Substantially the same powers of access, however, are given to the United States audit inspectors under the bilateral agreements concluded by the United States.[74] Some countries which are parties to these agreements might prefer to have the inspection performed by an international agency rather than by nationals of the United States.[75]

[71] Pp. 776 and 777.

[72] Statute, art. XII, par. A, subpar. 6.

[73] Switzerland proposed 2 changes in subpar. 6 of art. XII, par. A of the statute. The first of them was to clarify that the persons subject to control by Agency inspectors are only those who because of their occupations deal with materials, equipment and facilities supplied by the Agency. The second envisaged that the inspectors be accompanied by representatives of the state concerned, if the state requested it and the inspectors are not impeded thereby. See IAEA/CS/Art. XII/Amend. 1/Corr. 1 and Corr. 1/Rev. 1. See also Conference Room Papers Nos. 6 and 13 and the Swiss statement in IAEA/CS/OR.37, p. 102, for changes from the original wording of the amendments. Both amendments were accepted by 77 votes to none with no absentions. For rather unenlightening statements on the scope of inspection, see IAEA/CS/OR.29, pp. 17, 62, 87.

[74] See, e.g., art. X of the agreement for cooperation between the United States and France, 102 CONG. REC. 10398 (June 29, 1956).

[75] One of the problems that might confront the Agency in working out its system of inspection, namely the composition of inspection teams, was brought to the attention of the Conference in the proposed Philippines addition to article XII (IAEA/CS/Art. XII/Amend. 4) reading as follows: "Any mission of inspection to determine any diversion to military end contrary to this statute shall consist of at least three members: one from the Union of Soviet Socialist Republics and two others from the five members most advanced in the technology of atomic energy referred to in sub-paragraph A-I of Article VI of this

The principal opposition to the safeguards provisions in the twelve-power draft came from India. Practically the entire debate on safeguards in the conference centered on the three reservations entered by India.[76] The main thrust of the Indian objection was directed against the inclusion of source materials[77] in the accountability system and against the almost unrestricted right of the Agency to dispose of the by-product weapon grade material produced in operation of the power reactors. This latter right was considered essential to the safeguards system for a number of reasons, one of which was to prevent states from stockpiling greater quantities of weapons grade by-product than they could presently use for peaceful purposes.[78] India contended that the statute would give the Agency perpetual and far-reaching power to affect the economic life of states. The ingenious compromise solution reached in the conference retains the accountability of source materials but restricts the right of the Agency with respect to the "special fissionable materials recovered or produced as a by-product"; the states will have the right to retain (under continuing Agency safeguards) such quantities of the by-product materials as they can use "for research or in reactors, existing or under construction."[79]

statute." (UK, US, USSR, Canada, France). This amendment received no substantial support. For an explanation of the motivation of this amendment see the statement of the Philippine representative in IAEA/CS/OR.27, p. 36.

Mr. Virgin, Swedish representative remarked: "The recruitment of the staff of inspectors and the selection of members of a mission will obviously give rise to many problems. . . . My delegation feels that on those questions one should not go into further detail in the statute itself than has been done, but that it should be left to the Agency to find an appropriate course of action and to arrange in each particular case for the inspection under the general rules of the statute and, of course, of any agreement between the Agency and the recipient member country. The consultation envisaged in paragraph A 6 to which I just referred will give ample opportunity to the recipient country to give its views for the consideration and guidance of the Agency. . . . It would mean introducing an entirely new principle if staff members from particular countries or group of countries were to be given the right of being represented in a given function of an international organization." IAEA/CS/OR.27, pp. 67-68. For further statements in opposition to the Philippine amendment see IAEA/CS/OR.24, p. 67 (Australia); IAEA/CS/OR.30, p. 26 (U.S.S.R.). The Philippine delegation did not press the amendment to a vote. IAEA/CS/OR.30, p. 47.

[76] See Appendix H.

[77] See note 10 supra for the definition of this term.

[78] For the United States view see the statement by Mr. Wadsworth, United States representative, in IAEA/CS/OR.29, pp. 59-61.

[79] Statute, art. XII, par. A, subpar. 5. See Conference Papers Nos. 19 and 21, containing the amendments adopted in the statute. As a practical matter under existing technology very little plutonium or U-233 would come under this exception at the present time, and the states will thus be required to dispose of the bulk of these materials as instructed by the Agency. In addition, states would have the right to require that special fissionable materials produced as a result of such operations and deposited with the Agency, "be re-

The discussion on the safeguards occupied about half of the Conference debates. The compromise solution removed the last obstacle to the unanimous approval of the statute.

While the provisions of the statute concerning safeguards are fairly detailed, the agreements between the Agency and its members will very likely have to go into considerably greater detail. The only restriction on the terms of the agreements is that all their provisions "shall be in accordance with the provisions of the statute. . . ."[80]

The elaboration and establishment of a detailed system of safeguards will pose a great challenge to the Board of Governors; outstanding scientific skill coupled with wise political counsel will be required to meet this challenge.[81] If the Agency grows into an active body, its standards of safeguards for security as well as of health and safety will have direct influence on national standards developed by member states. The Agency may contribute to worldwide uniformity of these vital standards. Unprecedented questions will arise in coordinating the inspection and enforcement functions between the Agency and the member states or groups of states such as EURATOM.

Supplying of Materials

The statute makes a differentiation between fissionable materials and other materials which may be useful to the Agency.[82]

turned promptly to the member or members concerned for use under the same provisions as stated above." Thus economic and political factors could not deprive states of the plutonium and other fissionable by-products produced from their reactors. At the same time, states would not be permitted to accumulate idle stockpiles of plutonium readily usable for atomic weapons.

80 Statute, art. III, par. D.

81 As the representative of Pakistan, Mr. Ahmad, put it, "It will be up to the Board of Governors, as it considers different specific situations and as it attempts to implement agreements which the statute provides for, to consider most carefully where there is a necessity for applying rigidly the rules contained in the statute in this specific case, and I take it that it will, in a realistic way, seek for each project technical solutions which, while upholding the main ideas of control, will burden the recipient country with the minimum of difficulties." IAEA/CS/OR.28, pp. 24-25.

82 The definitions of the various types of materials as defined in art. XX (notes 8 to 10 supra) bear resemblance to those of the United States Atomic Energy Act of 1954, 42 U.S.C. (Supp. III, 1956) §2014(s) and §2014(t). The definitions in the statute are, however, more specific than those of the Act. Definitions similar to those of the Atomic Energy Act of 1954 are contained in the bilateral agreements between the United States and other countries. See, e.g., art. I, pars. H and I, of the Agreement for Co-operation Between the United States and France, 102 CONG. REC. 10398 (June 29, 1956). The Indian amendment (IAEA/CS/Art. XX/Amend. 2), which had proposed that irradiated source material should be excluded from the definition of special fissionable material (art. XX, par. 1), was not adopted by the International Conference.

Theoretically, the Agency is to accept any amounts of special fissionable materials offered to it subject only to reaching agreement on a proper price and matters incidental to the transfer.[83] This would carry out the underlying concept advanced by President Eisenhower in the General Assembly in 1953 that the Agency should syphon off the supplies of fissionable materials from military to peacetime uses.[84]

In contrast, the Agency would accept only such quantities of source materials and other materials as determined by the Board of Governors.[85] Without such a provision, the Agency might be overwhelmed with materials useful in connection with atomic energy programs but in surplus supply.

The statute does not specify whether the contributed material will be sold or leased to the Agency; nor does it fix the legal form of the transaction through which the material will be made available by the Agency to the recipient state.[86] This commendable omission will allow the Board to work out agreements tailored to different types of projects and fitting the requirements of national legislation.[87] As long as the safeguards obligations are effectively imposed, the question of the legal form of the transaction is relatively unimportant.[88]

One of the most difficult problems in connection with the supplying of materials will be the determination of the amount the Agency will pay for the contributed materials. This is intertwined with the problems of financing of the Agency and will be dealt with later in that connection.

No member may require that the materials it makes available to the Agency be kept separately by the Agency or designate the specific project in which they must be used.[89] It seems to be the

[83] Statute, art. IX, par. A. This provision does not have the restriction contained in par. B for source materials, namely, the power of the Board of Governors to "determine the quantities of such materials which the Agency will accept. . . ."

[84] See p. 748 supra. For the proposition that such was the purpose of the language in par. A of art. IX, see Mr. du Plessis (representative of the Union of South Africa), who said: "Article IX . . . does not give the Agency the right to refuse these materials since such a right would be incompatible with the disarmament purposes of the Agency." IAEA/CS/OR.20, p. 28.

[85] Statute, Art. IX, par. B.

[86] The statute uses the inconclusive term "reimbursement" in art. XIII to describe the payment made to contributing members. The terms "withdraw" used in art. XII, par. A, subpar. 7, and "return" in art. XII, par. C of the statute are also inconclusive.

[87] For problems arising under the United States Atomic Energy Act of 1954 in regard to the title to fissionable material and the forms of transaction used, see pp. 782-783 infra.

[88] See Appendix I.

[89] See art. IX, par. J of the statute. This provision refers both to material stored with the Agency and those stored by the member in accordance with art. IX, par. A, second sen-

purpose of this provision to ensure that all contributed materials are available for all approved projects.

Once a member has notified the Agency of its intention to make a contribution, the member must be in a position to make delivery immediately to the recipient state as instructed by the Agency or to the Agency itself to the extent that such materials are "really necessary for operations and scientific research in the facilities of the Agency."[90] However, the member in its discretion may decide whether it will retain possession of the material pending instructions to deliver or make an agreement with the Agency for storage in the Agency's depots.[90a] The latter alternative will be feasible, of course, only when the Agency has established its storage facilities.

One great problem that will confront the Agency is the location of storage facilities when they are established. The headquarters of the Agency in Vienna would not be a particularly suitable location for storage facilities.[91] In storing special fissionable materials in its possession, the Agency is under obligation to insure the geographical distribution of these materials in such a way as not to allow concentration of large amounts of such materials in any one country or region of the world.[92] It will be difficult to find locations where the fissionable materials could be disposed of on short notice in the event of an attempt to seize them. A possible location would be on an island where in an emergency they could be dumped into the sea.

According to the statute, unless the Board decides otherwise, the materials initially made available shall be for the period of one year.[93]

tence, for in either case the materials are "made available." While a member has not the right to demand that its contribution be used for a specific project, the article does not seem to preclude the Agency from agreeing to such a use. To what extent would such agreement bind the Agency? Does the express exclusion of the right to demand the use of a contribution in a specific project exclude any and all conditions, e.g., the condition that the contribution be *not* used in a specified area or for a certain type of project?

90 Statute, art. IX, par. D. This means that a state is obligated to deliver materials to the *Agency* only for the Agency's own immediate needs. Therefore, the Agency acts as a "bank" only for the materials stored at the request of the supplying member. All other material is transferred directly from the contributing to the recipient country. The word "really," which is bad English, was designed to emphasize the immediate character of the Agency's own requirements for operations and research. It was introduced in the twelve-power draft on Soviet insistence.

90a Statute, art. IX, par. A, second sentence.

91 Vienna was tentatively selected by the Conference as the permanent site of the Agency's headquarters on October 23, 1956. IAEA/CS/OR.39, p. 62.

92 Statute, art. IX, par. H, third sentence.

93 Statute, art. IX, par. F, second sentence. The statute does not say specifically

A provision of this nature was probably necessary since the chief contributors would not wish to bind themselves for any longer period until they could determine how well the Agency was functioning. However, it is somewhat unrealistic. The Agency projects will require a continuous supply of fissionable materials. It will be necessary for the Agency, before it approves a project, to have some assurance of a continuing supply of fissionable materials for the life of the project. The bilateral agreements of the United States generally provide for the supply of materials for at least five years.[94] In comparison, an Agency project would not be particularly attractive if it could guarantee materials only for one year. The United States has already indicated its intention to make materials available to the Agency for a longer period. On the final day of the conference, Chairman Lewis Strauss of the United States Atomic Energy Commission delivered a message of the President of the United States:

> "To enable the International Atomic Energy Agency, upon its establishment by appropriate governmental actions, to start atomic research and power programs without delay, the United States will make available to the Agency, on terms to be agreed with that body, 5,000 kilograms of a nuclear fuel uranium 235 from the 20,000 kilograms of such material allocated last February by the United States for peaceful uses by friendly nations. . . . In addition to the above mentioned initial 5,000 kilograms of uranium 235, the United States will continue to make available to the International Atomic Energy Agency nuclear materials that will match in amount the sum of all quantities of such materials made similarly available by all members of the International Agency, and on comparable terms, for the period between the establishment of the Agency and July 1, 1960. The United States will deliver these nuclear materials to the International Agency as they are required for Agency approved projects."[95]

whether the period covered by the contribution must be determined in the agreement with the contributor and whether the Board has discretion to modify such period.

[94] E.g., in art. XI of the Agreement for Co-operation between the United States and Cuba, 102 CONG. REC. 10396 (June 29, 1956), and between the United States and the Dominican Republic (also art. XI), id., 10401 at 10402.

The Atomic Energy Commission on November 18, 1956 announced that it is prepared to furnish fuel requirements beyond the term of ten years. Statement by the Chairman of the Atomic Energy Commission, AEC Press Release, November 18, 1956, p. 3.

[95] IAEA/CS/OR.40, p. 7. The announcement of the Atomic Energy Commission, referred to in the preceding footnote, leaves the door open for arrangements between the United States and the Agency on terms similar to those of the bilateral agreements.

The United Kingdom and the Soviet Union have indicated their intention to contribute fissionable materials with the United Kingdom setting a relatively small quantity.[96]

Project Agreements

The principal obligations of members of the Agency including the obligation to submit to safeguards and to health and safety regulations will arise only when the member signs a project agreement with the Agency. The statute specifies the principal elements which must be included in such agreement.[97]

A majority of members of the Agency will have at the outset little technological skill in the field of atomic energy. For such a state to secure a power reactor through the Agency, it must obtain fissionable materials, technical advice, reactor components and financing.

The applicant state will receive its fissionable materials from the Agency as a result of an agreement with the Agency. On the other hand, technical advice and reactor components are likely to be obtained from sources outside of the Agency. The terms and conditions under which the services and components are obtained must be set forth in the project agreement with the Agency.[98] The Agency has no responsibilities in connection with financing the project but "upon request the Agency may also assist any member or group of members to make arrangements to secure necessary financing from outside sources to carry out such projects. In extending this assistance, the Agency will not be required to provide any guarantees or to assume any financial responsibility for the project."[99]

96 See the statement of Mr. Nutting in the 718th meeting of the First Committee of the 9th General Assembly on November 16, 1954, that the United Kingdom was prepared to hold available 20 kilograms of fissionable material as initial contribution to the Agency. U.N. GENERAL ASSEMBLY OFF. REC., 9th Session (1954), First Committee, A/C.1/SR.718, p. 347 at 348. The Soviet Union on July 18, 1955 stated that it is ready "to deposit into an international fund for atomic materials under an international agency for atomic energy 50 kilograms of fissionable materials, as soon as agreement has been reached on the creation of such an agency." Note of the Soviet Ministry of Foreign Affairs to the American Embassy, in United States Department of State Press Release No. 527, October 6, 1956, p. 11.

97 See art. XI, par. F of the statute.

98 Statute, art. XI, par. F, subpar. 3. It is interesting to note that no specific provision is made in this subparagraph with reference to supply of information, unless the term "services" is meant to include supplying of information. Furthermore, subpar. 3 seems to be limited to situations where a project is assisted by the Agency or by the Agency and a "member." What if assistance is given by a non-member?

99 Statute, art. XI, par. B. This wording originated in amendment IAEA/CS/Art. XI/Amend. 1, contained in revised form in Conference Room Paper No. 5, sponsored by

Relation to Bilateral, Multilateral and National Programs

An important aspect of the functions of the Agency revolves around its relation to the bilateral agreements for developing peaceful uses of atomic energy (such as the bilateral agreements for cooperation between the United States and thirty-seven other states) and multilateral arrangements (such as the proposed EURATOM plan under negotiation by the six members of the European Coal and Steel Community[100] and the proposed scheme of the Organization for European Economic Cooperation).[101] To what extent will the Agency replace bilateral and multilateral arrangements for international cooperation in the atomic energy field? To what extent will the parties to these arrangements utilize the Agency system of safeguards against diversion for military uses?

During the United Nations General Assembly discussions of the Agency in the fall of 1954, in response to a question by Mr. Vishinsky, Ambassador Lodge indicated that the United States did not contemplate that the Agency would have exclusive authority for international transfers of fissionable materials for peaceful uses of atomic energy.[102] During the negotiations on the Agency statute it became apparent that one of the prime objectives of the Agency—prevention of the diversion of fissionable

all 20 Latin American countries, which was adopted by 57 votes to none. IAEA/CS/OR.28, pp. 2-5.

100 For a description of the proposed EURATOM plan see "Report of the Intergovernmental Committee on European Integration" (Brussels, 1956), reprinted in Univ. of Mich. Law School Summer Institute, WORKSHOPS ON LEGAL PROBLEMS OF ATOMIC ENERGY (1956) at 201-215. See also KNORR, EURATOM AND AMERICAN POLICY (Princeton) (1956).

101 For a description of this scheme see "Report of the Special Committee for Nuclear Energy to the Council," with annexes and decisions adopted by the Council on July 18, 1956, in JOINT ACTION BY O.E.E.C. COUNTRIES IN THE FIELD OF NUCLEAR ENERGY (1956). For an earlier report, see POSSIBILITIES OF ACTION IN THE FIELD OF NUCLEAR ENERGY (O.E.E.C.) (1956). On both EURATOM and O.E.E.C. plans, see KNORR, NUCLEAR ENERGY IN WESTERN EUROPE AND UNITED STATES POLICY (Princeton) (1956).

102 In the 715th meeting of the First Committee Mr. Vyshinsky said that the meaning of the term "clearing-house" used for the activities of the Agency was not clear to him. He interpreted it to mean that if projects for the use of fissionable material transferred through the International Agency from one state to another were made contingent upon approval by the International Agency, the Agency would have the right to approve or reject the plans established by states for the use of fissionable materials for peaceful ends. This would constitute a violation of international law, if the decisions of the Agency should be unacceptable to the states concerned. U.N. GENERAL ASSEMBLY OFF. REC., 9th Session (1954), First Committee, A/C.1/SR.715, p. 329 at 333.

In the 717th meeting Mr. Lodge answered that in practice the Agency would have no control over the use of fissionable material except when such material was specifically earmarked for Agency projects. Thus any state would be free to transfer fissionable materials to another state without having to secure the consent of the Agency. A/C.1/SR.717, p. 341 at 343.

materials to military uses—could be totally defeated if the United States, the United Kingdom or the Soviet Union in their bilateral agreements should make fissionable materials available to other countries under less onerous safeguards than those provided in the Agency statute.[103] Obviously if safeguards are to be effective the systems of safeguards under bilateral and multilateral agreements must in general conform to the Agency safeguard system.

A step in this direction was made by the United States in providing in its more recent bilateral agreements for safeguards substantially identical to those in the statute.[104] Furthermore, states which are parties to these agreements undertook upon the establishment of the Agency to consult with a view to transferring the administration of the safeguards to the Agency; either party was given the right to terminate a bilateral agreement if such consultations do not lead to an understanding.[105] It remains to be

[103] A meeting of experts was held in Geneva immediately following the scientific conference in August 1955 to discuss the question of uniform safeguards. See generally United States Department of State Press Release No. 527, Oct. 6, 1956, and Appendix A below.

[104] In regard to the standardization of safeguards, see the United States Aide-Memoire of August 15, 1956, in United States Department of State Press Release No. 527, Oct. 6, 1956, pp. 29-30, and the model article, id. at 31. For actual safeguards provisions in a "power-bilateral," see arts. XIII and XIV of the agreement between the United States and Australia, 102 CONG. REC. 10412 at 10414 (June 29, 1956).

[105] Up to this date the United States has negotiated 41 bilateral agreements for cooperation with 39 countries. For a list of these countries, see "Records of Agreements for Cooperation," Division of International Affairs of the Atomic Energy Commission, dated October, 1956. (For earlier figures see the "Twentieth Semiannual Report of the Atomic Energy Commission," July 1956, p. 12). Of these, 34 are agreements for cooperation in the research reactor field, 7 are "power-bilaterals." A number of other agreements for cooperation are under negotiation. [On U.S. bilateral agreements, see FISCHER, L'ENERGIE ATOMIQUE ET LES ÉTATS-UNIS, 241-296 (1957)].

Before the middle of 1956 the agreements did not refer to the International Agency. Agreements concluded after that time took into consideration the future establishment of the Agency in the following manner:

"The Government of ———— and the Government of the United States of America affirm their common interest in the establishment of an international atomic energy agency to foster the peaceful uses of atomic energy. In the event such on international agency is created:

"1. The parties will consult with each other to determine in what respects, if any, they desire to modify the provisions of this agreement for cooperation. In particular, the parties will consult with each other to determine in what respects and to what extent they desire to arrange for the administration by the international agency of those conditions, controls, and safeguards, including those relating to health and safety standards, required by the international agency in connection with similar assistance rendered to a cooperating nation under the aegis of the international agency.

"2. In the event the parties do not reach a mutually satisfactory agreement following the consultation provided in paragraph A of this article, either party may by notification terminate this agreement. In the event this agreement is so terminated, the Government of ———— shall return to the United States Commission all source and special nuclear materials received pursuant to this agreement and in its possession or in the possession of persons under its jurisdiction." See United States Department of State Press Release No. 527, Oct. 6, 1956, p. 33, and, for a practical example, art. XII, par. A, of the Agreement for Cooperation with France, 102 CONG. REC. 10400 (June 29, 1956).

seen whether the Soviet Union would be willing to take a similar step with respect to the arrangements to which it is a party.[106] The scheme proposed by the Organization for European Economic Cooperation for the control of its activities in the nuclear field calls for arrangements with the Agency "with regard to the exercise of the control on the territory of countries participating both in the Organization and in the Agency."[106a] The Agency statute now specifically provides that the Agency safeguard system (including inspection by Agency inspectors) may be extended "at the request of the parties, to operations under any bilateral or multilateral arrangement."[107] During the International Conference, at the suggestion of Thailand, this provision was further broadened to permit the safeguard system and the health and safety system to be extended "at the request of a state to any of that state's activities in the field of atomic energy."[108] This obviously is a further step in the direction of making possible a uniform international system of safeguards.

The remaining steps necessary to transfer the concept of uniform safeguards from the realm of ideas have not yet been taken: first, an agreement among states disposing of fissionable materials outside the Agency that they will require in each instance the acceptance of the Agency system of safeguards as a condition of turning over the materials; and second, the ultimate establishment of a system of safeguarded disarmament which would apply the system of safeguards universally to the entire atomic establishment of all states including those possessing atomic weapons. In view of the present Soviet attitudes, the outlook for the attainment of this last goal in the foreseeable future is unpromising.

The United States, the United Kingdom and the Soviet Union supported the Thai suggestion but gave no indication that their own programs would be subjected to Agency safeguards. The

106 See note 66 supra.

106a Sec. III, par. 12, subpar. a of the decisions adopted by the Council of the European Organization for Economic Cooperation on 18th July, 1956, JOINT ACTION BY O.E.E.C. COUNTRIES IN THE FIELD OF NUCLEAR ENERGY pp. 132-133 (1956). For the type of security controls and safeguards contemplated, see id. at 57-73. For the controls and safeguards contemplated by EURATOM, see "Report of the Intergovernmental Committee," note 100 supra, at 211 et seq.

107 Art. III, par. A, subpar. 5 of the statute. This provision was first included in the twelve-power draft.

108 Statute, Art. III, par. A, subpar. 5, Mr. Khoman, representative from Thailand, remarked in the Conference: ". . . [I]f for no other reasons than those of equality and equity, as well as the reason that the *eventual establishment of world-wide security from atomic danger is possible,* these safeguards shall not be restricted to the present boundaries but extended to all the countries of the world." Emphasis added. IAEA/CS/OR.15, p. 65.

Soviet Union has on a number of occasions stated that it will supply fissionable materials to other countries without any safeguards excepting an agreement by those countries to devote the materials only to peaceful purposes.[109] However, to date the Soviet Union has apparently not offered sufficiently significant quantities of fissionable materials to countries other than those which it fully controls to create any substantial danger of their diversion to purposes of war.

Thus the functions of the Agency have been expanded to permit full assumption of responsibility for universal safeguards if and when the Great Powers agree.

Most of the inter-governmental discussions of the relationship of the Agency to bilateral or multilateral programs of cooperation have concentrated on the systems of safeguards. However, the success or failure of the Agency will depend equally upon working out a proper relationship on other phases of the program. It is apparent that the United States, the United Kingdom and the Soviet Union can, through bilateral or multilateral agreements, make available all types of assistance which the Agency might provide. If the terms offered by one of these states are more favorable than those offered by the Agency or if the procedures are less cumbersome, then there would be little incentive for a state to request assistance from the Agency.

If the Agency is to play a meaningful role in the development of the peaceful uses of the atom, it will be necessary to work out some form of relationship between the Agency program and bilateral and multilateral programs. Three possible types of relationship immediately suggest themselves.

1. The United States (and also the United Kingdom and the Soviet Union) might gradually arrange for the Agency to take over the bilateral and multilateral programs in their entirety. Some of the recent bilateral agreements of the United States

[109] Mr. Zarubin, representative of the Soviet Union, stated at the Conference: "The Agency should impose upon no country control that might infringe upon its sovereign rights. . . . It is . . . necessary to note that the agreement on the peaceful utilization of atomic energy concluded between the Soviet Union and other countries does not contain any conditions which might infringe upon the sovereign rights of countries participating therein. The Soviet Union considers that a sufficient guarantee is to provide in the draft statute that countries must be obligated not to make use of the assistance which they receive from the Agency for the production of atomic weapons, and must submit reports with respect to the assistance received. The system of guarantees contemplated under the draft statute would have meaning if it had been connected with the prohibition of the atomic weapon and if it had been made applicable to both the recipient countries and the countries giving assistance." IAEA/CS/OR.3, pp. 31-35. For the position taken by the Soviet Union in regard to safeguards, see also Appendix G below.

provide for consultations between the parties after the establishment of the Agency with a view to possible modifications of the agreements.[110] However, any change in the agreements would require the consent of both parties.

2. The bilateral and multilateral arrangements might continue with the parties requesting the Agency to assume the responsibility for the administraion of safeguards. The statute contemplates this possibility which was discussed above.[111]

3. The bilateral and multilateral arrangements might continue to cover the same broad fields where the Agency furnishes assistance. In this event, in order to avoid unnecessary duplication of activities, it might be advisable for the three Great Powers to agree that certain specific types or sizes of reactors would be furnished with the assistance of the Agency while countries in their separate programs would concentrate on other types or sizes. EURATOM and the Organization for European Economic Cooperation have under study the establishment of "common installations" (or "joint undertakings") such as isotope separation and chemical processing plants.[112] Coordination of Agency activities with these multilateral arrangements will also be necessary.

In the absence of some arrangement to correlate the various programs, the Agency might find that practically all feasible projects were being undertaken outside the Agency.

Privileges and Immunities

The statute grants the Agency such legal capacity and privileges and immunities in the territory of each member "as are necessary for the exercise of its functions."[113] The delegates of the members and Governors (members of the Board) with their staff as well as the Director General and the staff of the Agency are accorded privileges and immunities "necessary in the independent exercise of their functions. . . ."[114] Separate agreements to be negotiated between the Agency and the members are to define the legal capacity, privileges, and immunities so conferred.[115] These limited "functional" privileges follow generally the provisions in the Charter of

110 See note 105 supra.

111 Statute, art. III, par. A, subpars. 5 and 6.

112 On EURATOM "common installations," see "Report of the Intergovernmental Committee," note 100 supra, at 209-210. On O.E.E.C. "joint undertakings," see JOINT ACTION BY O.E.E.C. COUNTRIES IN THE FIELD OF NUCLEAR ENERGY 23-52 (1956).

113 Statute, art. XV, par. A.

114 Statute, art. XV, par. B.

115 Statute, art. XV, par. C.

the United Nations and the statutes of some specialized agencies of the United Nations.[116]

The question arises whether or not the grant of the legal capacity, privileges, and immunities was intended to become effective from the date of the ratification of the statute in the absence of separate agreements. It is pertinent to note that the final draft omits the eight-power draft provision to the effect that the requirement of separate agreements is "without prejudice to the immediate effectiveness"[117] of the grant of the legal capacity, privileges, and immunities.

Settlement of Disputes

"Any question or dispute concerning the interpretation or application" of the statute, not settled by negotiation, "shall be referred to the International Court of Justice in conformity with the Statute of the Court unless the parties concerned agree on another mode of settlement."[118] In order to bring a matter before the Court under this provision, it will apparently be necessary for the parties to conclude a special agreement unless both parties had previously accepted the compulsory jurisdiction of the Court. The provision in the eight-power draft which would have conferred unequivocally upon the Court compulsory jurisdiction in this matter has been abandoned.[119] This is clearly a concession to the opposition on the part of the Soviet Union to the compulsory jurisdiction of the International Court in any form or shape.

Both the General Conference and the Board of Governors "are separately empowered, subject to authorization from the General Assembly of the United Nations to request the International Court to give an advisory opinion on any legal question arising within the scope of the Agency's activities."[120]

116 See, e.g., art. 105 of the United Nations Charter, which, contrary to the Covenant of the League of Nations, does not provide for diplomatic immunities but only (as in the case of the Agency) for limited privileges. The provisions in the constitutions of other specialized agencies are similar. See, e.g., art. 67 of the Constitution of the World Health Organization; art. 40 of the Constitution of the International Labor Organization.

117 Art. XVII, par. C of the eight-power draft.

118 Statute, art. XVII, par. A.

119 Art. XIX, par. E, the relevant provision of the eight-power draft, read: "The Parties to the present Statute *accept* the jurisdiction of the International Court of Justice with respect to any dispute concerning the interpretation or application of the Statute. Any such dispute may be referred by any Party concerned to the International Court of Justice for decision unless the Parties concerned agree on some other mode of settlement. . . ." Emphasis added.

120 Statute, art. XVII, par. B. This provision is based on art. 96, par. 2 of the United Nations Charter which provides that "other organs of the United Nations and specialized agencies, which may at any time be so authorized by the General Assembly, may also

The language of this article is broad enough to cover not only disputes among member states but also disputes between the Agency on one hand and a member on the other. The latter type of disputes would include differences arising between the Agency and a recipient state over the interpretation of a project agreement. Under the statute, any such project agreement is to "make appropriate provision regarding settlement of disputes."[121] It is hoped that the Board will develop a formula to be included in all project agreements—for a speedy and binding solution of such disputes in the event the efforts at a settlement by the Director General and the Board should fail. A possible formula would be to refer the dispute to the International Court of Justice for an advisory opinion which the parties would undertake to accept in advance.[122] Another possible formula would be to provide for arbitration by a special commission which could develop into an expert judicial body on matters relating to atomic energy.[123]

Financing of the Agency

One of the most difficult problems confronting the Agency will be that of financing its operations. The reason, of course, is that most activities in the field of atomic energy involve vast expenditures.

It is clear that the International Agency, at the outset, will have the financial resources to carry on only a small fraction of the total activities associated with the peaceful development of atomic energy.

request advisory opinions of the Court on legal questions arising within the scope of their activities." It is of somewhat academic interest to speculate whether under this article, the Agency would be considered a "specialized agency." The Agency cannot be a party to a contentious proceeding before the International Court since the Statute of the International Court of Justice provides in art. 34, par. 1, that only *states* can be parties in cases before it.

121 Statute, art. XI, par. F, subpar. 6. This provision originated in an amendment submitted by the Netherlands. IAEA/CS/Art. XI/Amend. 3. In view of its adoption, a Swiss amendment (IAEA/CS/Art. XVII/Amend. 1/Corr. 1) designed to provide for the settlement of disputes of any kind and including disputes with the Agency was withdrawn.

122 Although this formula by itself would of course not establish compulsory jurisdiction of the Court over the Soviet Union, the Russians nevertheless may be expected to oppose it. They may oppose it perhaps somewhat less vigorously and—it is hoped—less successfully than the original text of the disputes article in the eight-power draft. For a possible procedure utilizing the advisory opinion of the International Court of Justice in an arbitration procedure see sec. 21 of the Headquarters Agreement between the United States and the United Nations, signed June 26, 1947. U. N. GENERAL ASSEMBLY OFF. DOC., Second Session (1947), Resolutions, 169 (II), p. 91.

123 As pointed out above, a beneficiary state cannot avoid or delay the measures imposed by the Board for noncompliance with the safeguards provisions by invoking the dispute settlement provisions contained in art. XVII or in the project agreement. Any

The statute recognizes four methods of financing Agency activities. First, administrative expenses[124] will be included in a separate budget and apportioned among the members in accordance with a scale to be fixed by the General Conference. The General Conference, in fixing this scale, shall be guided by the principles adopted by the United Nations in assessing contributions of member states to the regular budget of the United Nations.[125] In the early years of the Agency, only a small fraction of the eighty-seven states eligible for initial membership will be the beneficiaries of power projects. Most of the remaining members will be unwilling to accept large assessments which would be utilized for the general administration of the Agency without any direct benefit to them, thus limiting the funds assessed in this manner.

A second method of financing the Agency would be through borrowing. Under rules and limitations to be approved by the General Conference the Board of Governors has the authority to exercise borrowing powers on behalf of the Agency without, however, imposing on the individual members of the Agency any liability in respect of the loans.[126] While the language of the statute is most ambiguous, presumably loans would be utilized chiefly for the construction of Agency facilities and not for the day-to-day operations of the Agency.[127]

A third method of financing is through voluntary contributions. The Board of Governors is authorized to accept voluntary monetary

effort to provide for such avoidance or delay in the project agreement would seem to be contrary to the safeguards provisions of the statute, and particularly to art. XII, par. C.

124 Administrative expenses are defined in art. XIV, par. B, subpar. 1 of the statute to include (a) costs of the staff of the Agency (other than the staff employed in connection with materials, services, equipment and facilities required in carrying out the Agency's functions or necessary for Agency projects); cost of meetings, expenditures required for the preparation of Agency projects and for the distribution of information, as well as (b) costs of implementing safeguards and expenses incurred in the "syphoning off" of special fissionable material not used for any project. The expenses under (a) are apportioned to the full extent. According to par. C of art. XIV, the expenses under (b) are apportioned only to the extent that they are not recoverable under agreements regarding the application of safeguards between the agency and parties to bilateral and multilateral arrangements.

125 Statute, art. XIV, par. D.

126 Statute, art. XIV, par. G. The provision that the members shall not be liable for loans was included on British initiative following a suggestion made by Yugoslavia. IAEA/CS/OR.31, p. 42. See also IAEA/CS/OR.32, p. 17 and pp. 60-61 for the British and U.S.S.R. positions in this matter. The amendment is contained in Conference Room Paper No. 12/Rev. 1. The Soviet Union opposed any borrowing power for the Agency. The amendment proposed by the Soviet Union to delete par. G (IAEA/CS/Art. XIV/Amend. 4) was rejected by 49 votes to 9, with 14 abstentions. IAEA/CS/OR.36, p. 22.

127 See appendix J.

contributions made to the Agency.[128] There are a number of parallels for financing international bodies in this manner, for example, the United Nations agency supporting the Palestine refugees. However, the amount of voluntary contributions which states might be willing to make is likely to be limited.

The fourth method of financing the Agency is through charges imposed in project agreements between the Agency and states recipients of materials and services. Such charges will include costs of special fissionable materials and of their handling and storage and probably a large proportion of the cost of administering the system of safeguards.[129] Here again there are practical limitations upon the funds that can be raised through such charges. The greater the charges the greater the cost of production of electric power utilizing atomic fuel. If the charges imposed under Agency agreements are onerous, the result will be to delay substantially the time when atomic power will be competitive with conventional power. Furthermore, if the charges are greater under the Agency program than under bilateral programs, states will be discouraged in utilizing the Agency. On the other hand, there may be no other practical way to finance the safeguards system. One possible solution for this dilemma would be for states contributing fissionable and other materials to contribute those materials to the Agency at less than cost. There is nothing in the statute which would prevent such an indirect subsidy of the Agency.[130]

128 Statute, art. XIV, par. G, last clause. This provision was included in the statute as a result of an amendment submitted by Egypt, Indonesia, and Syria. IAEA/CS/Art. XIV/Amend. 2, as revised by Conference Room Paper No. 10. The Soviet Union proposed an amendment to add a new par. E to art. XIV providing for financing of expenses under par. B, subpar. 2, to the extent that they concern the acquisition of Agency-owned materials, facilities and equipment, by voluntary contributions. IAEA/CS/Art. XIV/Amend. 4. This amendment was rejected by 52 votes to 10, with 10 abstentions. IAEA/CS/OR.36. pp. 24-25.

129 Statute, art. XIV, par. B, subpars. 1 (b) and 2.

130 As stated previously, contributions of fissionable and other materials to the Agency will be made on terms agreed upon between the Agency and each individual state making the contribution. Statute, art. IX, pars. A and B. The agreement between the contributing state and the Agency might provide for furnishing the material at cost, at less than cost or at more than cost. There is nothing in the statute to require the Agency to pay uniform sums to the states making the contributions. Chairman Strauss of the U.S. Atomic Energy Commission, in his statement to the International Conference on October 26, 1956 (IAEA/CS/OR.40, p. 2 et seq.), indicated that the United States contributions would be "on comparable terms" to the contributions made by other members. Id. at 7. It thus would be possible for the United States and other contributors to adjust the amount they charge to the Agency in such a manner that the cost of fissionable materials to recipient states including surcharges for operation of the safeguard system would be comparable to the cost of fissionable materials furnished under the bilateral programs. It should be noted that under the bilateral programs of the United States the net cost of fissionable materials to cooperating states is reduced through the amounts which the United States pays to such states for the plutonium by-product recovered when the fuel elements

Amendment Procedures

Amendments to the statute come into effect when approved by the General Conference by a two-thirds majority and "by two-thirds of all the Members in accordance with their respective constitutional processes."[131]

A member unwilling to accept an amendment to the statute may withdraw from the Agency at any time but must fulfill its contractual obligations to the Agency.[132] In theory, at least, this right to withdraw from the Agency protects a member against unacceptable amendments which would make basic changes in the rights and obligations of membership. In practice, however, if the Agency becomes a truly important source of assistance it might not be feasible for a state to withdraw. In all probability, agreements between the Agency and its members for the supply of special fissionable materials will result in obligations extending over a number of years.[133] It might be wise for a state furnishing fissionable materials to provide specifically in its agreement with the Agency for the termination of its obligation to furnish the materials in the event of its withdrawal from the Agency because of an amendment to which it was unwilling to agree. Likewise, the obligations of a state receiving assistance from the Agency will presumably extend for the life of the project and would make a withdrawal difficult. This raises the problem of the status of a power reactor constructed with assistance of the Agency if the state where the reactor is located withdraws from the Agency. Presumably the agreement between the Agency and the recipient state would cover this contingency. The statute provides that withdrawal by a member from the Agency shall not affect its contractual obligations entered into pursuant to the provisions governing Agency projects.

United States Cooperation With the Agency

The statute appears to conform to the concept of "an international arrangement" for an "international atomic pool" into which the President was "authorized" by the Congress to enter

are chemically reprocessed in the United States. The Agency would not be in a position to make similar payments until the technology of utilizing plutonium for peaceful purposes is further advanced so as to allow the Agency to make profitable use of it.

131 Statute, art. XVIII, par. C.

132 Statute, art. XVIII, pars. D and E.

133 For considerations concerning the duration of obligations of member states contributing materials, see pp. 768-769 supra.

by the Atomic Energy Act of 1954.[134] The adherence of the United States to such an "arrangement" under the act may become effective either upon approval by the Congress or upon advice and consent by the Senate (as a treaty).[135]

To meet the other conditions of the Act of 1954 for the United States cooperation with the Agency, it would be necessary—unless the act is modified—for the Atomic Energy Commission to negotiate with the Agency periodic "agreements for cooperation" specifying the amounts and terms of the United States contribution of fissionable materials for a given period.[136] The safeguards provisions of the Agency statute might be considered sufficient to enable the Agency to undertake in the agreement for cooperation the guarantees against diversion of materials to military purposes required in the act. Upon completion of the negotiations, the Commission will have to recommend approval of the agreement to the President. Before approving it, the President will have to make "a determination in writing" that it "will *promote* and will not constitute an unreasonable risk to the common defense and security." If it can be assumed that the participation of the Soviet Union and its satellites in the "international atomic pool" was contemplated by the Congress, such determination

134 Atomic Energy Act of 1954, 42 U.S.C. (Supp. III, 1956) §2154 (P.L. 703, §124).

135 Id., §§2154 and 2014 (k) (P.L. 703, §124, §11 k). The statute provides for "ratification or acceptance" in accordance with "respective constitutional processes." Art. XXI, par. D. For discussion of §2154 (P.L. 703, §124) and generally of subchapter X (P.L. 703, ch. 11) of the Atomic Energy Act of 1954 on International Activities, see Cole, "The Meaning of the New Atomic Law," NUCLEONICS, p. 12 (March 1955); Wit, "Some International Aspects of Atomic Power Development," 21 LAW AND CONTEM. PROB. 167-169 (1956). For a discussion of the provisions of the act concerning international activities generally see Ruebhausen, "New Atomic Problems," 9 N.Y. CITY BAR ASSN. REC., 368 (1954). See also University of Michigan Law School, Summer Institute, WORKSHOPS ON LEGAL PROBLEMS OF ATOMIC ENERGY 63-84 (1956).

136 Sec. 2154 (P.L. 703, §124) of the Atomic Energy Act of 1954, 42 U.S.C. (Supp. III, 1956), contemplates that the United States' cooperation with the "pool" will be "pursuant to an agreement for cooperation entered into in accordance with section 2153 of this title." Sec. 2153 (P.L. 703, §123) provides for such an agreement with "any nation or regional defense organization." Since the Agency is not a "regional defense organization," the question may be asked whether under §2153 (P.L. 703, §123) an agreement with the Agency is possible. This question clearly must be answered in the affirmative since in the absence of new legislation any other arrangement in the general context of the act and the Agency's statute would seem to be impracticable. It could perhaps be said that the giving of advice and consent by the Senate to the Statute (or the approval by Congress of the Statute), since the statute provides for agreement between individual contributors (such as the United States) and the Agency, supersedes §§ 2153 and 2154 (P.L. 703, §123, 124) to the extent that they are interpreted as precluding a bilateral agreement between the United States and the "international atomic pool." Cf. in House of Representatives Report No. 2181 on amending the Atomic Energy Act of 1946, "Separate Views on International Activities" and "Separate Views of Representative Holifield and Representative Price on H.R. 9757," reprinted in ATOMS FOR PEACE MANUAL, note 5 supra, at 156-160 and 161 at 190-193.

would be possible. Finally, before it could come into effect the proposed agreement—after approval by the President—would have to lie before the Joint Committee on Atomic Energy of the Congress for thirty days while the Congress is in session. The provisions of the Agency statute do not seem incompatible with the procedure required by the Atomic Energy Act interpreted in the above fashion. In fact, as pointed out earlier, the Agency statute itself envisages notification by the member of contributions made available "in conformity with its laws" and periodic agreements with contributors determining the terms of the contributions.[137] However, the cumbersome nature of this procedure and the legal problems involved suggest the desirability for a firmer legal basis for the United States cooperation with the Agency. This may have been in the mind of the President when he declared his intention to present the Agency statute "for official ratification by our Senate, . . . and to request *appropriate Congressional authority* to transfer special nuclear materials" to the Agency.[138] If this indicates the President's intention to propose an amendment to the Act of 1954 it is hoped that such amendment would provide a procedure for cooperation not only with the Agency but also with certain regional arrangements such as EURATOM, to which the United States has given strong encouragement.

Among the guarantees which the Agency would be required to give to the United States under the present Atomic Energy Act is the undertaking that any material supplied by the United States will not be transferred "beyond the jurisdiction" of the Agency except as specified in the agreement itself.[139] The Atomic Energy Act does not specify the form of the legal transaction (sale, lease, etc.) through which the United States fissionable material may be made available under an agreement for cooperation.[139a] It does provide that the title to all such material "within or under the jurisdiction of the United States" shall be vested in the United States Government[140] but it is silent with respect to the title to such materials distributed abroad. The United States bilateral agreements provide for either a lease or a sale of such materials to the cooperating government with the further provision in the case of sale that the title must remain vested in that government

137 Statute, art. IX, par. C.

138 See President Eisenhower's message read by the Chairman of the Atomic Energy Commission to the International Conference on October 26, 1956. IAEA/CS/OR.40, p 6.

139 Par. a (4) of §2153 (P.L. 703, §123) of the Atomic Energy Act of 1954, 42 U.S.C. (Supp. III, 1956).

139a See id., §2074.

140 Id., §2072 and §2012 (h).

(and not passed to a private party under its jurisdiction) as long as private ownership of fissionable materials is not recognized in the United States.[141]

It is hoped that within the framework of the Atomic Energy Act and the Agency statute the Board of Governors will be able to work out with the Atomic Energy Commission a formula which would allow the Agency to make use of the United States contribution in the form most suitable to a given transaction keeping in mind, of course, that under the statute no member "shall have the right to require" that its contribution be "kept separately" or used for a designated purpose.[142] Neither the concept of a lease nor that of a sale may necessarily fit the actual arrangements desired.

Conclusions

The Agency as originally conceived had the twofold objective of making available the benefits of the peaceful uses of atomic energy on a worldwide basis and at the same time making a beginning in the direction of worldwide limitation of armaments through syphoning off to peaceful uses a portion of the materials available for nuclear weapons. For long periods of time during the negotiations the outlook for any tangible achievement toward either of these objectives was clouded. During the year immediately following the President's address to the United Nations, it appeared that the Soviet Union might not be a member and that the Agency might have limited membership largely confined to Western Europe and Latin America.

The statute in its present form looks forward to a substantial contribution by the Agency to the peaceful development of atomic energy on a worldwide basis. However, largely because of the vast cost of the necessary facilities, for some years, its role is likely to be less significant than the role of national, bilateral and multilateral regional programs.[143] The safeguards system developed in the statute should play a major role in delaying and perhaps preventing the development of nuclear weapons programs

141 The sale arrangement is used in "power bilaterals," e.g., art. VII of the Agreement with Australia, 102 CONG. REC. 10412 at 10413 (June 29, 1956). The lease arrangement is used in "research bilaterals," e.g., art. IV of the Agreement with New Zealand. Id. at 10403.

The EURATOM plan contemplates that with certain qualifications the EURATOM will have the option to purchase uncommitted quantities of source and fissionable material of the member states and will be the exclusive source of supply of such material for the members. "Report of Intergovernmental Committee," note 100 supra, at 210-213.

142 Statute, art. IX, par. J.

143 E.g., an Agency gaseous diffusion plant is an unlikely development for many years.

in countries other than the three now possessing such weapons, but will play little if any role in reducing the existing nuclear weapons potential of the United States, the United Kingdom, and the Soviet Union. It could immediately assume a much greater significance in the disarmament picture if the Great Powers could agree on the United States' suggestion made in the disarmament negotiations that all future production of fissionable material be utilized for peaceful purposes under adequate controls.[144]

In the eyes of the world, the success of the Agency is likely to be gauged by its progress toward establishment of power plants utilizing atomic fuel in the various areas of the world. The provisions in the statute regarding the powers, composition and manner of selection of the Board of Governors can be justified to the world only if the Agency in the near future disposes of substantial quantities of fissionable materials for this purpose. There are many hurdles in the path of rapid progress toward atomic power on a worldwide basis. The power plants cannot be established until the safeguards system is ready to operate. Yet the safeguards system cannot be worked out until a program for power production is well along in the planning stage since the details of the safeguards system will depend upon the size and type of power reactors that are visualized. Similarly, the standards of health and safety must be established prior to the power plants going critical.

Assuming as we may on the basis of the assurances given by the United States and the United Kingdom that the Agency will have a sufficient amount of fissionable materials to start operating, progress toward the goals of the Agency will, nevertheless, be slowed down by a shortage of trained technical personnel and a shortage of finances. The lack of available capital will affect not only the budget of the Agency but also national programs. Much skillful planning and action lie ahead to surmount these obstacles. The success of the undertaking depends also in large measure on securing for both the Agency staff and the Board of Governors individuals with the highest technical competence and the creative imagination necessary to visualize the Agency program and carry it out successfully.[145]

144 E.g., par. 3 of United Nations Disarmament Commission Document DC/87, of July 3, 1956, draft resolution submitted by Canada, France, the United Kingdom and the United States in the Disarmament Commission.

145 The experience in negotiating the statute of the Agency has created a useful precedent for preparing drafting international legislation under U.N. auspices. Rather than trying to draft a treaty in a committee of the General Assembly, it is preferable to organize a small but representative group such as the twelve-power group including those most

APPENDIX A
(footnote 17)

BRIEF SUMMARY OF NEGOTIATIONS FOR THE INTERNATIONAL ATOMIC ENERGY AGENCY

1. First Phase of Diplomatic Correspondence Between the United States and the Soviet Union

The first outline of a statute for an agency of the kind envisaged in President Eisenhower's proposal of December 8, 1953, was contained in a United States Department of State memorandum handed to Soviet Ambassador Zarubin on March 19, 1954. This memorandum is the first in a series of six documents representing the first phase of the correspondence between the United States and the Soviet Union, covering the period from March 19 to September 23, 1954. For the text of these documents see ATOMS FOR PEACE MANUAL, note 5 supra, at 266-283; also U.N. GENERAL ASSEMBLY OFF. REC., 9th Session (1954), Annexes, Agenda Item 67, p. 4 (Doc. A/2738). The outline already contained many features of the Agency in its present form. In its reply the Soviet Union claimed that the United States memorandum evaded the problem of nuclear weapons and would tend to intensify the atomic armament race. Soviet Union Aide Memoire of April 27, 1954, in ATOMS FOR PEACE MANUAL, note 5 supra, 269 at 271-272. Later on, however, the Soviet Union indicated its willingness to separate the issues of disarmament and peaceful uses of atomic energy. Soviet Union Aide Memoire of September 22, 1954, id. at 278 et seq.

2. Negotiations of Eight States

Ambassador Morehead Patterson, U. S. representative in the original negotiating group consisting of Australia, Belgium, Canada, France, Portugal, the Union of South Africa, the United States and the United Kingdom, describes the development that followed the discussion in the 9th General Assembly in the fall of 1954: "The United States prepared a first draft of the Statute taking into consideration suggestions received from other negotiating States and also from the United Nations General Assembly debates. This draft was then submitted to the negotiating States on March 29, 1955. During April and May the United States discussed this draft with all the negotiating States and also received further comments from interested agencies of the United States Government which had not participated in the original drafting.

"After a thorough discussion, it developed that there was sufficient unanimity among all negotiating states so that substantially all of the

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vitally interested in the project. This group would then prepare the draft treaty and submit it to an international conference of all members with the understanding that it should not be changed except as a result of a demand by two-thirds of the members. During the negotiations, intermediate reports could well be made to the General Assembly which might discuss the progress and the chief issues without entering, however, into the drafting process.

suggested changes could be reconciled and incorporated into a new draft of the Statute. This new draft was transmitted to the Soviet Union on a confidential basis on July 29, 1955, and its comments were requested. It was distributed by the United States on behalf of the negotiating States also on a confidential basis to all eighty-four States Members of the United Nations or of the specialized agencies on August 22, 1955. Comments on the Statute were requested from all States." Report of Ambassador Morehead Patterson, 34 DEPT. OF STATE BUL. 5 at 6 (1956).

3. Discussion in the Ninth General Assembly

The question of the Agency came up for the first time for general international discussion in the 9th General Assembly. (See U. N. GENERAL ASSEMBLY OFF. REC., 9th Session (1954), Plenary Meetings, A/PV. 475, p. 17 at 25, A/PV. 478, p. 63 at 66, A/PV. 503, p. 339 at 339-349; First Committee, A/C.1/SR. 707-725, pp. 289-387, Annexes, Agenda Item 67.) The debates there led to the unanimous adoption of a draft resolution which referred to ". . . negotiations. . . in progress. . . for the establishment of an International Atomic Energy Agency . . .," expressed the hope that ". . . the International Agency will be established without delay . . .," and suggested that ". . . once the Agency is established, it negotiate an appropriate form of agreement with the United Nations . . .," and that ". . . Members of the United Nations be informed as progress is achieved in the establishment of the Agency and that the views of members which have manifested their interest be fully considered. . . ." Resolution 810 (IX), Document A/Resolution/230, in U. N. GENERAL ASSEMBLY OFF. REC., 9th Session (1954), Annexes, Agenda Item 67, pp. 24-25. For the report of the First Committee, see id. at 22-23.

4. Second Phase of Diplomatic Correspondence Between the United States and the Soviet Union

In the second series of notes (Department of State Press Release No. 527, Oct. 6, 1956, containing fifteen notes exchanged between Nov. 3, 1954 and Jan. 27, 1956) the Soviet Union demanded that the Agency be closely connected with the United Nations (in particular the Security Council) and that no member should have a "privileged position" within the Agency.

The United States, in a note of April 14, 1955 (id. at 8, 9), expressed its willingness to consider these comments and made clear that it kept the door open for the Soviet Union to join the negotiating group. It stated, however, its intention in the meantime to carry on the negotiations regardless of Soviet participation. The United States furthermore submitted an agenda for a joint discussion by experts of both countries on safeguards against diversion of fissionable materials.

The U.S.S.R., on July 18, 1955 (id. at 11-13), declared its readiness to participate in the negotiations and agreed to deposit 50 kilograms of

fissionable materials with the Agency as soon as agreement on the creation of the Agency has been reached. Again it referred to principles which it considered basic, among them the participation of *all* nations (obviously designed to bring in Red China) in the Agency with no privileged position for any state. The joint study of safeguards should take place after the completion of the scientific conference in Geneva scheduled for the summer of 1955.

In its answer of July 29, 1955 (id. at 14-15), the United States transmitted the draft statute worked out by the 8-power negotiating group (note 14 supra), which was identical with the draft distributed on August 22, 1955 to all members of the United Nations and of the Specialized Agencies, except for two minor changes. Later on the U. S. and U.S.S.R. agreed on the conference of experts on the safeguards to include also experts from Canada, Czechoslovakia, France and the United Kingdom. On Oct. 1, 1955 the Ministry of Foreign Affairs of the Soviet Union wrote to the American Embassy (id. at 22-24) that the 8-power draft could, with certain amendments, serve as a basis for drawing up the charter of an atomic energy agency. The permanent members of the Security Council should become permanent members of the Agency's Board of Governors. There should be a strong control mechanism, with inspectors investigating atomic installations of countries receiving aid under provisions which should give "due regard to the sovereign rights of the states." India, Indonesia, Egypt and Rumania should be added to an increased first Board of Governors. A 3/4 majority in the Board and the General Conference should be necessary for financial decisions. In conformity with the 8-power draft, these Soviet proposals now envisaged the Agency acting not only as a clearing house but also as a "bank" for fissionable materials. The International Court of Justice should not have compulsory jurisdiction over disputes arising from the application of the statute. After the discussion of the Agency in the 10th General Assembly (see infra), the exchange was continued in a United States note of Jan. 27, 1956 (id. at 25) suggesting further discussions at a twelve nation working group meeting scheduled for Feb. 27, 1956.

The remaining portion of the exchange between the United States and the U.S.S.R. is concerned with the problem of safeguards, in particular the possible extension of safeguards to existing international arrangements (see note 66 supra).

5. Discussion in the Tenth General Assembly

The main points of discussion in the 10th General Assembly of the United Nations were the relationship between the Agency on one hand and the United Nations and its specialized agencies on the other; fair representation of states, both in regard to the negotiations on the Statute and in the mode of selection and voting of the Board of Governors; universality of membership; and the relationship of the Agency to regional

or bilateral programs outside the Agency. See U. N. GENERAL ASSEMBLY OFF. REC., 10th Session (1955), First Committee, A/C.1/SR. 757-772, pp. 5-93. A resolution was adopted unanimously [Resolution 912 (X) Document A/3116, in U. N. GENERAL ASSEMBLY OFF. REC., 10th Session, Supp. 19 (A/3116), pp 4-5,] welcoming the intention of the nations sponsoring the draft statute of the Agency to invite all members of the United Nations and its specialized agencies to a conference on the final text of the statute; welcoming the invitations extended to Brazil, Czechoslovakia, India and the U.S.S.R. to join the sponsors; recommending that the sponsors take into account the views expressed by the Agency during the debates in the United Nations and the comments made directly to the sponsors; recommending that measures be taken to establish the Agency without delay; and requesting that the Secretary General in consultation with his Advisory Committee study the question of the Agency's relationship to the United Nations and transmit the results of this study to the sponsors before the conference.

6. Negotiations of the Twelve States

A working group consisting of representatives of the original eight negotiating powers and of the representatives of Brazil, Czechoslovakia, India and the U.S.S.R. met in Washington from Feb. 27 to April 18, 1956 for further discussion of the draft statute. The report of the working level meeting dated July 2, 1956 reads (in part): ". . . [T]he Group reviewed each article of the Statute, together with the proposed amendments, taking into account the comments advanced during the proceedings of the tenth regular session of the United Nations General Assembly as well as those of the thirty-nine States which submitted observations on the Statute in response to a request made by the initial Negotiating Group in August 1955 to all States Members of the United Nations and its Specialized Agencies. . . .At the final plenary session on April 18, 1956, the Negotiating Group approved, *ad referendum,* the revised text of the draft Statute. . . . While the Australian, Czechoslovak, Indian and Soviet Delegations reserved their positions on certain provisions of the Statute, . . . all delegations voted in favor of the Statute as a whole. . . . At the same session, the Group agreed that a conference should be convened at the United Nations Headquarters in New York in the latter part of September 1956 to discuss, approve and open for signature the Statute of the International Atomic Energy Agency. . . . The Group also unanimously approved the Agenda and Rules of Procedure for the Conference." Report of the Working Level Meeting on the Draft Statute of the International Atomic Energy Agency, Doc. 31, Washington, D.C., July 2, 1956, pp. 1, 2.

APPENDIX B
(footnote 19)

Art. V, par. D, subpar. 2 of the twelve-power draft mentioned as one of the functions of the General Conference "to *admit* new Members in

accordance with Article IV." This was changed in art. V, par. E, subpar. 2 of the final text to read "to *approve* states for membership in accordance with Article IV." (Emphasis added.) The change was perhaps motivated by the desire to make it clear beyond any doubt that a *favorable* recommendation by the Board is necessary for the admission of a new member. The drafters may have had in mind the advisory proceedings before the International Court of Justice on the question whether a favorable recommendation from the Security Council is required for admission of a state to the United Nations by the General Assembly. The Court answered this question in the affirmative. Advisory Opinion of the International Court of Justice of March 3, 1950, in I.C.J. Reports of Judgments, Advisory Opinions and Orders, 1950, p. 4 at 10.

In approving states for membership under this paragraph the Board of Governors and the General Conference make the determination "that the State is able and willing to carry out the obligations of membership in the agency." Statute, art. IV, par. B. In making this determination "due consideration" is to be given to the state's ability and willingness to act in accordance with the purposes and principles of the Charter of the United Nations. The eight power draft would have had the Board of Governors and the General Conference each make two determinations: first, that the state was in a position to carry out the obligations of the Agency, and second, that the state was able and willing to carry out the obligations contained in the Charter of the United Nations. This would have excluded Switzerland which considers that it is not in a position to undertake the obligations required by the Charter of the United Nations.

APPENDIX C
(footnote 29)

The powers of the General Conference were a much debated item in the International Conference on the statute of the Agency. Apart from the additional powers already mentioned, the International Conference provided for the authority of the General Conference to approve the appointment by the Board of the Agency's chief executive, the Director General. See art. V, par. E, subpar. 10 and art. VII, par. A. This originated in an Indonesian-Pakistan amendment. IAEA/CS/Art. V/Amend. 8. The amendment was adopted by 77 votes to 1, with 1 abstention. IAEA/CS/OR. 22, p. 43.

Already before the discussions in the International Conference, the powers of the General Conference had been controversial matter. The smaller nations, not being represented on the Board of Governors, wanted to accord more authority to the General Conference. In response to the suggestions made to the negotiating parties, the 12-power draft added a provision in art. V, par. E, subpar. 3 giving the General Conference the power to "propose matters for consideration by the Board and request from the Board reports on any matter relating to the functions of the

Agency" (now art. V, par. F, subpar. 2 of the statute). Furthermore, the reference to the policy making power of the Board in art. VII, par. H of the eight-power draft no longer appears in the twelve-power draft and the statute. The powers of the General Conference other than those mentioned earlier are:

To elect the ten members of the Board mentioned in art. VI, par. A, subpar. 3 of the Statute (art. V, par. E, subpar. 1);

To determine the place of its sessions (art. V, par. A);

To elect a President and other officers (art. V, par. C);

To adopt its rules of procedure (art. V, par. C);

To request the Director General to convene special sessions (art. V, par. A);

To approve States for membership upon recommendation by the Board (art. IV, par. B);

To suspend members (art. XIX);

To consider the Board's annual report (art. V, par. E, subpar. 4);

To approve or return to the Board reports to the United Nations (art. V, par. E, subpar. 6; art. III, par. B, subpars. 4 and 5);

To approve or return to the Board agreements between the Agency and the United Nations or other international agencies (art. V, par. E, subpar. 7; art. XVI, par. A);

To approve rules regarding (a) the exercise of borrowing powers by the Board (art. V, par. E, subpar. 8; art XIV, par. G); (b) the acceptance of voluntary contributions to the Agency (art. V, par. E, subpar. 8; art XIV, par. E); (c) the use of the general fund (art. V, par. E, subpar. 8; art. XIV, par. F);

To approve amendments of the Statute (art. V, par. E, subpar. 9; art. XVIII, par. C (i)).

It seems that the enumeration in art. V is exclusive, i.e., the Conference has no other powers besides the ones specifically mentioned. A Polish amendment (IAEA/CS/Art.V/Amend.1) to art. V proposed to insert at the beginning of the functions of the Conference a sentence reading "to determine the general policy of the Agency." This amendment, in effect a general clause granting additional powers to the Conference, was rejected by 37 votes to 24, with 18 abstentions. IAEA/CS/OR.22, p. 42.

The voting procedures of the Conference are laid down in art. V, par. C. Every member of the Agency has one vote. Except for decisions on financial questions (art. XIV, par. H), approval of amendments (art. XVIII, par. C (i)), and the suspension of privileges (art. XIX, par. B), which requires a 2/3 majority, decisions are made by the majority of members present and voting, the majority of members constituting a quorum. Simple majority suffices for the determination of what additional questions are to be decided by a 2/3 majority.

APPENDIX D
(footnote 37)

The eight-power draft, art. VII, par. A, subpars. 1 and 2, as well as the first outline of the statute, art. II, par. C, subpar. 1, third sentence [ATOMS FOR PEACE MANUAL, note 5 supra, 266 et seq.], envisaged actual contributions as a prerequisite for selection to the non-elective seats on the Board. This prerequisite was dropped in the twelve-power draft. In the International Conference on the Statute, Denmark and Iran jointly submitted an amendment to art. VI, par. A, subpar. 1, which provided that in designating members of the Board under this sub-paragraph the contributions to the Agency should be taken into consideration. IAEA/CS/Art.VI/Amend. 2. In explaining this amendment the Danish representative said: "The main idea behind the Agency is that countries which are advanced and which are producing source material should give to other countries . . . their aid and their help. . . . [S]tress should be laid also on the contributions . . . because that is really the main point in the building up of this idea. . . . [N]o one in this room will suggest that any member elected on the basis of advanced technology and of production of source materials should be allowed to sit if that member were not willing to make contributions and was not actually making contributions." IAEA/CS/OR.19, p. 27. The Philippine representative remarked: "[T]hat paragraph [i.e., art. VI, par. A, subpar. 2] mentions 'producers. . . .' However, what good would that do as far as the Agency is concerned unless they make a contribution?" IAEA/CS/OR.19, pp. 29-30. In arguing against the amendment, Mr. du Plessis (Union of South Africa) pointed to the difficulty of evaluating contributions and deciding what transactions were to be regarded as contributions. IAEA/CS/OR.20, p. 26 et seq. Subsequently, this amendment was withdrawn. See IAEA/CS/OR.23, p. 3.

The composition of the Board in its present form is somewhat comparable to that of the Council of the Intergovernmental Maritime Consultative Organization. Art. 17, Convention of the IMCO. For the text of this convention, which is not yet in force, see 18 DEPT. OF STATE BUL. 499 et seq. (1948). There six members with the largest interest in the international seaborne trade and six with the largest interest in providing international shipping services are represented in this Council, together with 4 members elected by the Assembly of the IMCO. Other international organizations such as the International Bank for Reconstruction and Development and the International Monetary Fund have a system of weighted voting, based on actual contributions. See art. V, sec. 3 of the Articles of Agreement of the IBRD, and art. XII, sec. 5, of the Articles of Agreement of the IMF. Certain other organizations have all-elected executive bodies with one vote for each member, e.g., the United Nations Food and Agricultural Organization; the United Nations Educational, Scientific and Cultural Organization; the World Health Organization and the World Meteorological Organization.

APPENDIX E
(footnote 41)

See IAEA/CS/OR.39, p. 61. The six states elected were Egypt, Indonesia, Pakistan, Japan, Argentina and Peru. Apart from these six elected members, the Preparatory Commission is composed of representatives of Australia, Belgium, Brazil, Canada, Czechoslovakia, France, India, Portugal, Union of South Africa, the U.S.S.R., the United Kingdom and the United States. The Commission comes into existence with the opening of the statute for signature and continues till the first General Conference has convened and the first Board of Governors has been selected. Statute, Annex I, par. A. The functions of this Commission are of a provisional nature. Apart from organizing itself and appointing its staff it is to make arrangements for the first session of the General Conference. This includes the preparation of a provisional agenda and draft rules of procedure. The Commission is to designate members of the first Board in accordance with art. VI, pars. A and B; to make studies, reports and recommendations on various important problems for the first meetings of the Board and the Conference; and, finally, to enter into negotiations with the United Nations for a draft agreement on the relationship of the Agency to the United Nations and to make recommendations to the first sessions of the Conference and of the Board in regard to the relationship to other international organizations. Annex I, par. C, subpars. 1-7.

APPENDIX F
(footnote 57)

The specific question of the Agency's relation to the specialized agencies for which the Statute provides in art. XVI, par. A is dealt with in a memorandum by the executive heads of the specialized agencies presented to the International Conference (IAEA/CS/6, Sept. 24, 1956). In this memorandum attention was called to par. 9 of the United Nations, Doc. A/3122 (reproduced in IAEA/CS/5, Sept. 24, 1956), which calls for effective coordination between the activities of the Agency and those of the specialized agencies, with the aim of avoiding overlapping and duplication of activities. The annex to the memorandum contains comments by the International Labor Organization (ILO) and the World Health Organization (WHO), which seem to indicate a tendency not to relinquish much of the jurisdiction of these bodies to the Agency. Thus it was the opinion of the ILO that the protection of the health and safety of the workers cannot be the responsibility of an agency dealing solely with atomic energy. ILO felt that the present position, whereby the draft statute fails to make any explicit provision for cooperation with the ILO, but specifically authorizes the Agency "to establish or adopt standards of safety for protection of health and minimization of danger to life and property (including standards for labor conditions)," called for further consideration at the Conference. IAEA/CS/6/Annex. See also the statements of the representatives of various

specialized agencies in the International Conference on October 4, 1956. IAEA/CS/OR.16, p. 31 et seq.

Under art. III, par. A, subpar. 1, the Agency is given responsibilities in connection with "research on, and development and practical application of, atomic energy for peaceful uses throughout the world. . . ." The Food and Agricultural Organization includes among its functions "to stimulate and coordinate the use of radiation and radioisotopes in agricultural research and development, and to promote necessary investigations of the possible effects of radioactive materials on agriculture and food production." FAO is organizing an information service on the applications of atomic energy in agriculture and related fields. United Nations, Economic and Social Council, Doc. E/2931, Annex II, October 18, 1956, p. 7.

UNESCO authorized its Director General "to study and, if necessary, to propose measures of an international scope to facilitate the use of radioisotopes in research and industry." Id. at 9.

The International Bank for Reconstruction and Development states: "In carrying out its responsibilities, both to itself and to its members, in respect of the foregoing the IBRD will, from time to time, undertake studies of general and specific power needs, and the relationship of atomic fuels to conventional energy resources." Id. at 19.

Under art. III, par. A, subpar. 3 the Agency is authorized "to foster the exchange of scientific and technical information on peaceful uses of atomic energy." Under par. A, subpar. 4 of this article the Agency is authorized "to encourage the exchange and training of scientists and experts in the fields of peaceful uses of atomic energy." UNESCO'S program of work includes an item entitled "Training of Specialists." UNESCO proposes to convene an international conference "to organize a far-reaching exchange of information on the methods at present in use in various countries for training engineers, technicians, laboratory research workers and, in general, all the different scientific specialists who are concerned with the peaceful uses of atomic energy." Id. at 11. The conference will also recommend to UNESCO "action at the international level to secure the most efficient cooperation possible among the various countries; in particular, problems relating to exchange of teachers and students will have to be considered." Id. at 12.

Under art. III, par. A, subpar. 6 the Agency is given certain functions in developing standards of safety for protection of health and minimization of danger to life and property (including such standards for labor conditions), and to provide for the application of these standards to its own operations as well as to other operations coming under the jurisdiction of the Agency. The International Labor Organization states "the most immediate problems of concern to ILO is the protection of workers against ionizing radiations." Id. at 3. It is also planned to issue codes of practice dealing with the technical protective measures required in industrial and other undertakings. In addition, ILO will be able to provide advice and assistance to governments and industry in the training of specialized safety

personnel and inspectors." Id. at 5. The World Health Organization has adopted a provisional program of work which includes training of specialists for health protection in atomic energy laboratories or plants, public health administrators and medical users of radioisotopes. The WHO also includes in its program the entire subject of the "health problems involved in the control of the location of reactors and in radioactive waste disposal from factories, laboratories and hospitals." Id. at 16 (emphasis omitted).

The World Meteorological Organization has an extensive program concerning collection and analysis of atmospheric radioactivity and its relation to health and safety. Id. at 22.

APPENDIX G
(footnote 65)

The history of the Soviet attitude toward the safeguards provisions is of considerable interest. The first outline of an International Atomic Energy Agency (see Appendix A above) in art. III, par. B, subpar. 3 included provisions for both health and safety standards and safeguards against diversion of fissionable materials. Mr. Molotov, in his reply of April 27, 1954 (in ATOMS FOR PEACE MANUAL, note 5 supra, 269 at 271) described very vividly the situation which makes safeguards a necessity in connection with any program for the peaceful uses of atomic energy. He said: "[T]he level of science and technique which has been reached at the present time makes it possible for the very application of atomic energy for peaceful purposes to be utilized for increasing the production of atomic weapons." Mr. Molotov's solution to that problem was the restatement of the Soviet line calling for the prohibition of atomic weapons without safeguards. In a memorandum handed to Ambassador Zarubin by Assistant Secretary of State Merchant on July 9, 1954, (id., 274 at 276) the United States pointed out: "In reality, however, ways can be devised to safeguard against diversion of materials from power producing reactors. And there are forms of peaceful utilization in which no question of weapon grade material arises." On Sept. 22, 1954, the day before the opening of the General Assembly, Mr. Gromyko handed an aide-memoire to Ambassador Bohlen in Moscow (id., 278 at 281) stating: "The Soviet Government is ready to examine in course of further negotiations the United States Government's views on this question (safeguards)."

In the 716th Session of the 9th General Assembly's First Committee on Nov. 15, 1954, Mr. Vyshinski emphasized the necessity of control provisions by referring to President Eisenhower's plan contained in his speech before the General Assembly of Dec. 8, 1953: ". . . *[A]lthough the plan had contained no safeguards* to ensure that atomic energy would be used only for peaceful purposes . . . that did not mean that the Soviet Union considered it a bad one." (Emphasis added.) A/C.1/SR 716, p. 335 at 339.

The note of the Soviet Union of Oct. 1, 1955 to the American Embassy in Moscow called for an appropriate staff of inspectors to investigate atomic installations of the beneficiary states and to verify the use of materials and

equipment received from the Agency, such observations and control to be accomplished "with due observation of sovereign rights of the above-mentioned states and within the framework of an agreement between a given state and the Agency." United States Dept. of State Press Release No. 527, Oct. 6, 1956, p. 23. See statement of the Soviet representative in the First Committee of the 10th General Assembly, Oct. 11, 1955, U.N. GENERAL ASSEMBLY OFF. REC., 10th Session (1955), First Committee, A/C.1/SR.759, p. 13 at 14.

In its opening statement at the International Conference the Soviet Union representative, Mr. Zarubin, stated that ". . . the conditions for control and inspection, which are contemplated in the agreements between the United States and other countries and in the draft statute, do, in our opinion, infringe upon the sovereign rights of the recipient countries, and do therefore give rise to justified criticism on their part." IAEA/CS/OR.3, p. 31. In the following discussion on Agency safeguards, Mr. Zarubin said: "The delegation of the Soviet Union had already declared that it considered that a sufficient safeguard would be to abide by the provision of the statute which makes recipient states assume their obligation not to use the assistance received for the production of nuclear weapons and to submit reports on the use to which the assistance given by the Agency has been put. The safeguards and controls which the draft statute provides would be significant only if these provisions found their place within the framework of a general prohibition of nuclear weapons and if these guarantees and safeguards extended to all States, both the States receiving the assistance of the Agency and those supplying it. The application of safeguards to recipient countries alone—that is, in the first place, to under-developed countries—falls short of the mark and imposes upon the recipient countries such conditions of control and inspection as violate their sovereignty and which would no doubt slow down the utilization of atomic energy for peaceful purposes in these countries." IAEA/CS/OR.36, pp. 6,7.

APPENDIX H
(footnote 76)

India made three reservations to art. XII of the twelve-power draft. REPORT OF THE WORKING LEVEL MEETINGS, Annex IV, p. 3. First, the provisions of the twelve-power draft and also of the final statute require the agreement between the Agency and states receiving fissionable materials from the Agency to provide for certain Agency rights and responsibilities "to the extent relevant to the project or arrangement." The Indians would have added to this that the safeguards should be required only as specifically provided for in individual agreements between the Agency and the members thereof, thus permitting agreements with less safeguards than those prescribed in the statute. While there was considerable discussion on this subject India never submitted a specific amendment to the International Conference.

The second reservation concerned art. XII, par. A, subpar. 3 requiring the maintenance and production of operating records to assist in ensuring accountability for *source* and special fissionable materials used *or produced* in the project or arrangement. The Indians would have amended the article to restrict accountability to *fissionable materials supplied.* This would have eliminated from accountability all of the source materials as well as plutonium or U-233, produced as by-products of the operation of the reactor. IAEA/CS/OR.7, p. 48 et seq. France joined India in advocating the removal of source materials from accountability. IAEA/CS/OR.24, p. 46 et seq. The third reservation (both the second and the third reservations are contained in amendment IAEA/CS/Art. XII/Amend. 5 sponsored by Ceylon, Egypt, India and Indonesia) related to art. XII, par. A, subpar. 5, dealing with the chemical processing of fissionable materials and the disposition of plutonium and U-233 produced as a result of the reactor operations. The statute provided for complete Agency control over both the chemical processing of fuel elements and of the disposition of the fissionable materials produced in the reactor. This is one of the crucial points in reactor operations where diversion to war uses can most readily take place. India called for considerably less stringent control in connection with the by-product materials that would be produced from a reactor. Under this suggestion, states would be able to stockpile the plutonium and U-233 produced in reactors for use within the state for peaceful purposes and under Agency safeguards. Under present technology there are few peaceful uses for plutonium and for U-233. The result of the Indian suggestions would be that substantial stockpiles of materials unusable for peacetime purposes would accumulate in many parts of the world. The United States regarded this as a serious potential threat to the peace. India insisted that under the original wording of the statute, the Agency would be in a position to dictate in perpetuity what fissionable materials would be allotted to all states; it was entirely possible that the Board of Governors of the Agency on the basis of political or economic considerations unrelated to international safety would prevent states from acquiring the fissionable materials necessary for development of their economic welfare. IAEA/CS/OR.28, p. 55 et seq.

APPENDIX I
(footnote 88)

"Report of the Intergovernmental Committee on European Integration," Brussels, 1956, reprinted in University of Michigan Law School, Summer Institute, WORKSHOPS ON LEGAL PROBLEMS OF ATOMIC ENERGY (1956) 201 at 212, sets forth the procedure for the proposed EURATOM organization:

"*Regulations on (Restrictive) Allocation.*

(a) In all circumstances, fuels are placed at the disposal of users without discrimination.

(b) If the Organization declares itself unable to deliver within a reasonable period because of a shortage of supplies, it is obliged by that token to

recognize that a shortage exists and to carry out (restrictive) allocation. The allocation is made on the basis of current needs and not past reference periods.

(c) Fissile materials produced in installations that are not common installations are reserved even in case of allocation for the enterprise producing them or those for which they are destined under the programs binding these enterprises. Available surpluses can be ceded only to the Organization.

(d) In order to encourage the search for resources, the users to whom the Organization declares that it cannot deliver because of insufficient supply have the right to make use of the offers that they have received from third countries; this right may be exercised under conditions to be defined, which preserve in any case the exercise of a strict control by the Organization. In fact, this hypothesis has small chance to be realized under the actual supply conditions.

These fundamental rules must in every case be respected in the operations by which the Organization places nuclear ores and fuels at the disposal of the user.

These conditions may normally be satisfied even if the Organization buys, resells and repurchases after transformation or at the end of the process. However, it would make a practice of establishing a lease contract:

—for materials it has itself obtained by lease;

—for materials sold to it under conditions of non-resale;

—if the user chooses to lease rather than to buy;

—lastly, by decision of the Commission in the case of products such as fuels that are highly enriched or particularly dangerous for any other reason; this decision taken for reasons of security with the agreement of the Council and subject to appeal before the Court applies to all users without discrimination. In fact, the security rules and the conditions for allocation described above will in the last analysis make the distribution of materials to users the subject of truly *sui generis* contracts."

APPENDIX J
(footnote 127)

Art. XIV in pars. B and E in effect reduces to a minimum the occasions when the Agency would be justified in utilizing its borrowing powers under art. XIV, par. G. Theoretically, all of the expenditures coming under the administrative budget (par. B, subpar. 1) will be apportioned among the members pursuant to par. D of art. XIV. All other expenditures will be met through a combination of revenue from a scale of charges (art. XIV, par. E) and voluntary contributions (donations). The Board of Governors is required to fix a scale of charges at least adequate (together with donations) to cover the operational expenditures described in par. B, subpar. 2. Indeed, it is contemplated that there might be an excess of revenue which would go into the general fund (see par. F of art. XIV) and thus be

available, for example, to meet a part of the cost of the safeguards system. On the other hand, the administrative expenses are likely to exceed the amounts that could be raised through apportionment among the members, especially if the administrative budget includes substantial sums for items such as the construction of safeguards facilities and storage costs for the "syphoned off" fissionable material not used for Agency projects. Statute, art. XIV, par. B, subpar. 1 (b), last clause. Could the words "the costs of handling and storage of special fissionable material" in that clause be interpreted to include also the costs of *building* storage facilities for this material? Similarly, Agency facilities to be included in the operational budget under par. B, subpar. 2 may prove too expensive to be charged to the beneficiary members in accordance with art. XIV, par. E. It is these deficits which might be covered through borrowing. It seems probable that Agency borrowing would be directed primarily to that objective. Repayment of loans would come from the General Fund of the Agency resulting from an excess of revenues arising from the scale of charges and from donations. If loans are used for administrative expenses they could presumably be repaid by apportionment among members. Presumably, loans to construct facilities would be repaid over a period of years bearing some relationship to the life of the facilities.

The financing provisions were the subject of a lively discussion in the International Conference. The main point raised was the question as to who should be burdened with the financing of Agency facilities. See Mr. Zarubin (U.S.S.R.), IAEA/CS/OR.31, p. 11; Mr. Wershof (Canada), id. at 16; Mr. Wadsworth (United States), id. at 26, and other statements in IAEA/CS/OR.31 and 32.