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September 9, 1961

AEC 973/56

COPY NO. 8

ATOMIC ENERGY COMMISSION

U.S. PARTICIPATION IN IAEA FIFTH GENERAL CONFERENCE

Note by the Secretary

1. The General Manager has requested that the attached report by the Director of International Affairs be circulated for consideration by the Commission during the week of September 11, 1961.

2. It should be noted that Appendix "E" of this paper is being circulated separately.

W. B. McCool

Secretary

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ATOMIC ENERGY COMMISSION

U.S. PARTICIPATION IN THE IAEA--1961

Report to the General Manager by the
Director, Division of International Affairs

THE PROBLEM

1. To consider some basic issues involved in U.S. participation in the IAEA with particular reference to the forthcoming Fifth General Conference.

SUMMARY

2. The Fifth General Conference of the IAEA convenes in Vienna on September 26 and provides the United States with an important opportunity to make a major policy address on the Agency's program. In preparation for such conferences in past years the U.S. also has used the occasion to reappraise its basic policies regarding the Agency and its programs (See AEC 973/21, 973/23 and 973/35).

3. In the interest of obtaining Commission guidance, Appendix "A" of this paper reviews a number of basic policy issues concerning U.S. policy toward the IAEA and incorporates general recommendations regarding the nature and tone of the presentation that should be made by the U.S. at the Fifth General Conference. Appendix "B" analyzes the informal comments made to the Chairman by Dr. H. D. Smyth in his letter of August 8. Appendix "C" contains a brief factual report on the major activities that have been undertaken by the IAEA, and Appendix "D" includes a comparative table summarizing the relative financial contributions that the U.S., the U.K. and the USSR have made to the Agency's program.

This material contains information affecting the national defense of the United States within the meaning of the espionage laws, Title 18, U.S.C., Sec. 793 and 794, the transmission or revelation of which in any manner to an unauthorized person is prohibited by law.

THIS DOCUMENT HAS BEEN DECLASSIFIED UNDER THE PROVISIONS OF EO 12958, DATED 4/17/95
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4. In his letter of August 8, Dr. Smyth broadly endorsed the Agency and most of its current activities but he also suggested that the U.S. should (a) reassess the degree to which it is prepared to subsidize the development of nuclear power overseas and the role that it wishes the IAEA to play in this area (the Agency has received two proposals from Pakistan and Yugoslavia to assist in the establishment of nuclear power projects), (b) place its major civilian power reactor facilities under IAEA safeguards so as to remove the criticism that the Agency safeguard system is inherently discriminatory against the smaller powers and (c) turn the Plowshare program over, in some fashion, to the IAEA to administer. In general, however, Dr. Smyth opposes any radical and immediate changes or reductions in the Agency's program and on the basis of discussions with the staff it is clear that he believes that the new Director General should be provided with ample time and flexibility to formulate his own judgments as to the direction that the Agency's program should take. In recent informal discussions in Dr. Wiesner's office at the White House (see AEC 973/55) it was suggested that the U.S. must continue to support the IAEA and that consideration should be given to extending activities to scientific areas other than atomic energy (such as geophysics, computers, space, etc.) on a case-by-case basis particularly where there is a likelihood of USSR support. The Department of State, however, has raised serious question as to whether it would be desirable or timely for the Agency to extend its activities into the area of space at this time (see Appendix "F") and believes any amplification of Agency activity should be related to the work of the Agency.

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CONCLUSIONS

5. On the basis of discussions in Appendices "A" and "B", the staff has reached the following principal conclusions as a basis for preparing the U.S. statement to the Fifth General Conference, although not all of the conclusions will necessarily be mentioned specifically in the speech:

a. The U.S. should reaffirm its continued support of the Agency and its objectives.

b. No major changes in the Agency's program should be publicly advocated at this time. Any proposals to expand activities into fields outside atomic energy should be carefully evaluated and reviewed with other members, including the U.S.S.R. if possible, before they are publicly made.

c. A general review of the Statute of the Agency should be deferred. The new Director General should be given opportunity to study the Agency's program, fiscal structure, organization and staffing before significant changes are proposed but a plea should be made for a greater delegation of authority to the Director General and for a reduction in administrative burdens on the Secretariat. The importance of member states increasing and stabilizing their contributions to the voluntary fund should be stressed.

d. The U.S. should continue its present policy selectively to encourage, but not to require, other nations to go to the Agency for materials.

e. No major changes in U.S. safeguard policies should be made at this time and the U.S. should not make an offer to place all of its major civilian power reactors under Agency safeguards or abandon the safeguards program.

f. The US should continue to urge the Agency to assume a major role in regulatory matters and should press for prompt completion of draft conventions to govern liability for nuclear damage from land-based and ship reactors.

g. While the Agency's technical assistance program should be kept in proper perspective with other programs, the U.S. should endorse the technical assistance program and advocate a modest increase.

h. The potentiality of the Agency for organizing and coordinating joint-projects to be financed by participating governments should be stressed. Specific mention should be made of the possibility of projects of this nature in research on waste disposal.

i. It is premature and undesirable to announce in specific terms that the U.S. is prepared to provide

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special financial incentives (such as preferential price for U-235) to Agency-sponsored power projects.

j. It is premature and undesirable to make any specific remarks advocating Agency involvement in the Plowshare program.

k. The following offers of assistance should be made:

(1) A renewal of past offers of cost-free experts and equipment (to be financed out of MSP funds or other available funds).

(2) Continuation of the joint US-IAEA research program.

(3) An offer to provide free special nuclear material up to $50,000 in value for use in research and medical therapy.

(4) A willingness to receive a limited number of Agency nominated and supported trainees from underdeveloped countries for on-the-job training in the construction and operation of small and medium sized power reactors.

(5) Willingness to develop, in conjunction with the Agency, a program of special assistance to pilot research centers on the processing of food through radiation. Such centers to be located in member states to whom this problem is important.

l. The US should state that it favors the convening in 1963 of a Third General Conference on The Peaceful Uses of Atomic Energy and believes that the IAEA should be charged with the responsibility. The Director General should be asked to develop the necessary plans.

STAFF JUDGMENTS

6. The Divisions of Reactor Development, Research, Biology and Medicine, Isotopes Development, Peaceful Nuclear Explosives, Production, Military Application, concur in this paper. The Office of the General Counsel has no legal objection. The Office of Public Information concurs in the recommendation contained in in paragraph 7c. This paper also has received the concurrence of appropriate staff officers in the Department of State including Mr. Farley. The Office of the Controller does not concur in k(5) of the conclusions and 29(e) of Appendix "A" pertaining to assistance for food irradiation research centers. It questions the scope of the commitment and the use of AEC funds since in its opinion the

program appears to come directly under the Development Grant program of the new Act of International Development.

RECOMMENDATION

7. The General Manager recommends that the Atomic Energy Commission:

a. Approve the recommendations and analyses contained in this paper as a basis for preparing the final draft of the U.S. presentation before the General Conference.

b. Approve the specific offers of assistance by the U.S. to the Agency as contained in paragraph 5 and Appendix "A".

c. Note that a news release on this subject is not desirable at this time.

d. Note that following preparation of the next draft of the major U.S. address, it is suggested that the JCAE be furnished with a copy of the text for its review.

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APPENDIX "A"

BACKGROUND AND DISCUSSION

RECOMMENDED BASIC APPROACH TO BE FOLLOWED IN U.S. PRESENTATION

1. During the General Conference, members consider specific agenda items which require consideration by the Conference as the Agency's over-all policy-making body and also make major policy statements or suggestions relating to the direction the Agency's program should take in future years.

2. In a recent informal meeting in Dr. Wiesner's office at the White House, attended by senior officials of the AEC and the Department of State (see AEC 973/55), it was suggested that: (a) the Agency has a good technical staff without duties commensurate with its capabilities; (b) the U.S. has a responsibility to make the Agency an effective organization, because of the history of U.S. initiative and support, and (c) it may be in the U.S. interest to use the competence of the Agency in other scientific areas than atomic energy, for example, outer space (civilian uses of satellites for communications and weather studies), geophysics, computers and materials research. However, it was suggested that no attempt should be made to change the Agency's Statute at this time and instead it was agreed that the Secretariat should be encouraged on a case-by-case basis to consider broader subjects particularly where there is a likelihood the USSR will support such activities.

3. In the Staff's judgment the Agency could usefully diversify and expand its activities in several additional fields related to atomic energy if there is a disposition on the part of the members to support such activities either through an expansion in the Agency's budget or through technical and

financial participation in joint projects that are organized by the Agency. For example, the Agency has not played any major role in the support of reactor development projects or in the coordination and organization of joint projects in several areas - particularly in the more basic areas of physical science. This suggests that if there is a concern about utilizing the talent now available to the Agency more effectively it might be advantageous to explore these possibilities in the nuclear field first before efforts are made to involve the Agency in totally new and possibly dissimilar fields of scientific endeavor. As noted in Appendix "F", the State Department has strong misgivings about involving the IAEA in space activities at this time. Further, as recognized above, the U.S. obviously cannot determine on a unilateral basis that the Agency should extend its activities in other fields of science since any such extension would require the support of other members and may raise questions of Statutory interpretation. This suggests that the proposal to involve the Agency in other areas of science requires that the U.S. should carefully review any such proposals and consult with other members before it makes any proposals along these lines in a public forum.

4. In his letter of August 8 to the Chairman, Dr. Smyth states the following conclusion in which the Staff concurs: "My general conclusion is that the Agency is performing a number of useful functions at present and may well take on additional useful functions in the near future. It is well staffed and capable of enlarged effectiveness. Both for substantive and political reasons, it should receive vigorous support from the Government of the United States."

5. In view of the foregoing considerations, it is believed that the U.S. presentation at the forthcoming General Conference should be moderate in tone; that it should contain several general observations as to the current state of nuclear technology; that the Chairman should reaffirm, on behalf of the new administration, that the U.S. will continue to support the Agency and its objectives; and that he should state that the U.S. does not favor any major changes in the Agency's program or structure until the new Director General has had a thorough opportunity to become oriented and form his own judgments and recommendations. Further, the U.S. should urge the membership to join in reducing the administrative burdens on the Secretariat and providing the new Director General with a greater degree of authority.

REVIEW OF SELECTED KEY ISSUES

6. The following paragraphs review some of the aspects of the Agency's program in greater detail.

7. Distribution of special nuclear material. When the Agency was formed it was expected to assume a prominent role in receiving special nuclear material from the major powers and distributing it to other nations for peaceful uses. The fact that the Agency has not become a significant "distributor" of materials (notwithstanding recent increases in the number of fuel transactions it has handled) has been a primary source of much of the derogation of its program as well as a basis of criticism of the U.S. for maintaining its bilateral program. Specifically, some observers (who attach primary importance to the Agency's responsibility in the area of safeguards) have suggested that the Agency must serve as a major distributor of materials in order to effectively apply its safeguards to

cooperative activities between member states. In the staff's judgment this attitude has stemmed, at least in part, from a failure to differentiate between the Agency's responsibilities for distributing and safeguarding materials, and a lack of appreciation that under its Statute the Agency can (if the countries involved agree) extend in its safeguards responsibilities to bilateral cooperative activities even though it does not serve as a intermediary in the transfer of the special nuclear material which is involved. The staff continues to believe (as noted in AEC 973/21) that it is not essential for the Agency to serve as a distributor for all fissionable materials exchanged internationally, although continued efforts should be made to permit the IAEA to control and safeguard the use of such materials. The Agency can however play a very useful role in supplying material to any nation which, for political and other reasons prefers or needs to deal with an international organization. Accordingly as a matter of principle it is believed that the U.S. should continue to furnish as much of its U-235 distributed for its foreign program through the channels of the IAEA as the IAEA can absorb. Further, to the extent practicable, the Agency should also be enabled to furnish this material on terms that are no less attractive than those offered by the U.S. bilaterally. The U.S. should not, however, refuse to provide material bilaterally if other nations have a preference for dealing directly with the U.S. Further, while the U.S. should encourage other nations to go to the IAEA for their materials, it is believed that such efforts should be handled in a restrained fashion and in a manner that does not jeopardize U.S. efforts to reassure foreign countries that they can rely directly on the U.S. as a stable and long term supplier of special nuclear material. In the staff's view the Agency's supply function is fully justified if it does nothing more than

satisfy the needs of nations that prefer multi-lateral arrangements.

8. Safeguards and Controls of Special Nuclear Material. The widespread acceptance of Agency safeguards is still felt to be desirable as an objective of U.S. policy, although the practicality and success of this policy only will be proven with time and experience.

9. The primary objective of the U.S. safeguards program since its inception have been to: (a) secure international acceptance of an appropriate safeguards system for the peaceful uses of nuclear energy, (b) bring about the administration of safeguards, to the extent possible, by international organizations - preferably by the International Atomic Energy Agency, (c) encourage further international agreements on arms control by demonstrating the political and technical feasibility of an international safeguards system, and (d) permit the United States to fulfill its commitments under the Atoms-for-Peace Program without jeopardizing national security or increasing world tension.

10. Pursuant to these objectives, the U.S. played the leading role in developing and obtaining acceptance of the Agency safeguard principles and procedures that were adopted by the Board of Governors last January. In its continual review of the safeguards program, the staff previously has considered some of the possible adverse developments that might occur if its efforts to develop a strong IAEA safeguards program and common safeguard position among supplying nations should fail (see AEC 997/38). To date serious adverse developments have not materialized although there have been a few minor deviations on the part of some Western suppliers from desired safeguards

practices. Rather, the IAEA has adopted adequate safeguards, the common front among the Western suppliers remains tenously intact (see AEC 997/56), and the Soviet Union appears, if anything, to have tempered or reduced its offers of unsafeguarded assistance. Further, negotiations are now underway to place several U.S. bilateral agreements under IAEA safeguards.

11. Accordingly, in view of the foregoing considerations, the staff does not recommend any major change in U.S. safeguard policies regarding the IAEA at this time, and it is believed that the principal task of the U.S. and the Agency in the year ahead is to secure successful implementation of existing policies. As noted in Appendix "B", the Staff does not agree with the suggestion that the U.S. should place all of its major U.S. civilian power reactors under IAEA safeguards or else abandon its safeguard program. It is recognized, however, that the Agency's safeguard system may be continually criticized as discriminatory by certain "have not" countries. Further it may be difficult to achieve the application of IAEA safeguards to many projects due to a hesitancy of some countries to place themselves under multilateral controls given the current political climate. This suggests that the objectives of the U.S. in this area should be reassessed periodically.

12. Advice on Regulatory Matters. The original assumption that the Agency had an important role to play in the area of advising member states on health, safety and regulatory problems and in contributing to the solution of international problems in this area has proven to be entirely sound. Agency efforts have included formulating standards for international and domestic transportation of nuclear materials; preparing general health and safety standards for isotope uses and reactor operations,

supporting research and studies dealing with international aspects of waste disposal, and furnishing advice and assistance to members on reactor hazards evaluation. It is suggested that the U.S. should continue to urge the Agency to assume a major role in this area.

13. Considerable progress under IAEA auspices also has been made on the formulation of international conventions to govern liability for possible nuclear damage from both land-based reactors and nuclear powered ships. In view of the increasing need for international regulations in this field, it is suggested that the U.S. continue to press for prompt completion of draft conventions to which the U.S. could become a signatory.

14. Technical Assistance. Experience so far has demonstrated an increasing demand among the less developed countries for the Agency to take an active role in extending technical assistance through advisory missions, furnishing experts and equipment grants, and sponsoring training programs. Despite the continued validity of the concept that the Agency should not be a supplier of large scale economic aid, a role for the Agency in assisting its less developed members (through advice, equipment grants, etc.) appears both desirable and necessary from a technical and political standpoint. While some observers have questioned whether the Agency should maintain an active technical assistance program, the staff believes that it is important for the Agency to be able to demonstrate to the lesser developed countries that it is sponsoring programs of real interest and value to them. Accordingly, while serious study needs to be given to precisely how active the Agency should be in this area, and while efforts should be made to keep the Agency's technical assistance program in proper balance with its other activities, it is suggested that

the U.S. should continue to endorse the Agency's technical assistance program and should even go so far as to advocate some modest increases in the level of its activity. These increases could be achieved if the members made more strenuous efforts to increase their contributions to the Agency's voluntary fund which supports such activities and habitually has been under-subscribed.

15. Joint Projects. At the Fifth General Conference, it is proposed to emphasize the Agency's potential for organizing and coordinating projects of common interest to be financed by the participating members. In this way, by making use of some of the experience of the European Nuclear Energy Agency, the Agency need not be strictly limited by its budget in organizing worthwhile programs and it is possible that a fuller use can be made of well-qualified staff members that the Agency has assembled.

16. Further at its meeting last May, the IAEA Scientific Advisory Committee called attention to some of the potentialities open to the Agency to contribute to the formulation of joint projects or studies by member states. The initiative in these discussions was taken by Professor Emelyanov of the USSR.

17. The U.S. has urged at previous General Conferences the desirability of the Agency's developing an expanded research program in waste disposal, and it has indicated a willingness to participate in joint studies designed to solve some of the more immediate international problems in this area. At the Fifth General Conference, the staff proposes that the U.S. again urge the Agency to consider a series of joint waste disposal studies including (a) field river studies, (b) physiochemical reaction studies between waste and national earth materials, (c) geohydralogic studies for international land burial purposes,

(d) diffusion and transport of radioactive gases, and (e) improved methods for treatment and disposal of all types of waste. Agency sponsorship of such coordinated research programs may be more immediately attainable than larger more complex and expensive joint-projects such as the new and novel accelerator, and possibly could lay the ground work for some larger projects.

18. Development of Nuclear Power. There is a continued belief in certain quarters that the Agency must assume a more aggressive role in the development of nuclear power (particularly in the less developed countries) if it is to assume a really significant role in the field of nuclear energy. One of the functions of the Agency as set forth in its Statute, is to promote the development of nuclear power with special reference to the needs of underdeveloped countries. To date the Agency has undertaken a number of modest yet worthwhile activities in the field of power and reactor development. It has convened several conferences, conducted panel meetings on nuclear power costing, and studied the possible application of nuclear power in several Member States (Finland and the Philippines). The Agency however, has not provided important material and financial assistance to any nuclear power projects and probably will continue unable to do so if it must rely on its own limited financial resources. Rather, its ability to play any significant role will be dependent on (a) the willingness of the major atomic powers to supply special benefits to projects that are sponsored in some fashion under Agency auspices and (b) the vigor and imagination that the IAEA shows in functioning as an organizer in getting members to jointly support projects.

19. Prior to the Third General Conference in 1959, thought was given (see AEC 973/21) to having the U.S. announce its

willingness to sponsor, together with the Agency, a program of special assistance in support of a medium or small power reactor which would be located overseas. It was felt that there might be some benefit to the AEC in locating a proven type small reactor to a lesser developed country inasmuch as the conditions encountered in such countries are substantially different from those gained in more advanced countries and the experience acquired would be of interest to the U.S., reactor manufacturers and certain lesser advanced countries. The Commission concluded at Meeting 1538 on August 18, 1959, that it would not be desirable to make such an offer, inasmuch as it was generally felt that the U.S. was already supporting several projects that would provide useful experience to all countries interested in such applications.

20. Recently (see AEC 1032/16) Mr. Cole advised Dr. Seaborg of the current interest of Yugoslavia and Pakistan in developing small nuclear power demonstration reactor projects with the assistance of the IAEA. He suggested that the USAEC, in view of the delays and difficulties experienced in its small power reactor program (an obvious reference to the Jamestown experience) might now be interested in jointly sponsoring a small power reactor project in Yugoslavia. Yugoslavia has offered to furnish the site, the construction work and all components which could be produced in the country and to put at the disposal of the project certain of its research facilities and staff. These contributions are valued at approximately 50% of the total cost of the project. Yugoslavia proposes that the project be organized to permit the participation of experts from any IAEA member state in all phases of development from design stage to operation of the plant. It believes that one of the existing types of reactors should be used but that it should be

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adapted to the needs of industrially less developed countries. The Yugoslav delegation is likely to raise this matter with the Chairman at the General Conference.

21. Pakistan also has discussed with the IAEA the establishment of a nuclear power project along similar lines and reportedly is prepared to consider financing this project to the extent of the cost of a conventional thermal station of identical generating capacity. Pakistan proposes that the additional capital would be financed by the USAEC, and possibly the U.S. nuclear industry, in the interest of developing nuclear power in the underdeveloped countries and in order to gain experience in the operation and maintenance of reactors in such locations. The U.S. and IAEA would determine the type of reactor to be used.

22. In the staff's judgment, it would be premature for the U.S. to do more than state at the General Conference that it has reviewed with interest the information that has been received to date from Pakistan and Yugoslavia and that it will look forward, with interest to reviewing the Secretariat's report and analysis of these proposals in detail. Further, while the U.S. delegation may wish to reiterate the willingness of the U.S. to provide the IAEA and its members with full information and training opportunities on its own small and medium reactor program, it is suggested that it should defer making any suggestions that the U.S. would be willing to make financial contributions to one or more "IAEA sponsored" nuclear power projects until this matter has been studied in further detail.

23. Specifically, substantially more thought has to be given to such questions as whether the U.S. has a technical interest in financially supporting, in conjunction with the IAEA, such projects overseas; what types of incentives might be provided; and

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what the relative responsibilities of the U.S., IAEA and other countries might be. Consideration also will have to be given to whether it is desirable from an economic standpoint (given the other demands that countries like Yugoslavia and Pakistan have for outside assistance) for the U.S. to actively encourage such lesser developed countries to build nuclear power plants at this time.

24. The extent to which substantial participation in an overseas project might benefit the U.S. reactor development program would depend upon the technical and administrative character of the project. For example, a project which merely duplicated an existing reactor or closely paralleled one already under construction would appear to do little to advance reactor technology although it might contribute to the general experience and benefit the companies involved in its establishment.

25. On the other hand, a project which incorporated some novel features, or which was a prototype of a reactor concept, could be of interest if based upon sound technical foundations. Although it probably would be unwise from a technical standpoint to build a very advanced concept in a lesser developed country, it is believed that a prototype power reactor overseas could serve just as well as a domestic project if it were built abroad by a competent organization and under arrangements assuring that the U.S. Government and U.S. industry would obtain the resulting information. If, at the same time, U.S. industrial firms were likely to play principal roles in designing, fabricating and constructing the reactor, virtually nothing would be lost by having the USAEC provide assistance to an overseas project in the same manner and degree to which assistance is offered to a U.S. utility in carrying out the project.

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26. The IAEA might serve a useful purpose in sponsoring such projects in conjunction with the U.S. by acting as the channel through which foreign proposals might be solicited, by participating in the solicitation and review of certain aspects of proposals, by advising the states involved on health and safety matters, by sponsoring the training of personnel, and by furnishing the fuel.

27. The Division of Reactor Development is now studying this question and would be prepared to indicate at an appropriate stage those reactor projects which would be suitable for prototype construction abroad (in conjunction or not in conjunction with the IAEA) and would support a request for legislative authority for participation in such projects if a meaningful program of providing such assistance overseas could be developed.

28. If the U.S. decided to extend any special benefits to nuclear projects overseas, it probably would be desirable to put some type of quantitative ceiling on the number of projects that might qualify for such incentives. Further it probably would wish to receive proposals on a competitive basis. Any alternative approach (namely, extending special benefits to one country such as Yugoslavia but not another) undoubtedly would make the U.S. vulnerable to requests for assistance. If the USAEC decides that it does not wish to develop a program of special assistance in support of IAEA sponsored projects, it seems very unlikely that funds for such purposes would be made available from the foreign aid appropriation. Both the Department of State and the ICA generally have taken the position in recent months that the support of experimental (non-economic) nuclear power plants cannot now be justified under the economic assistance program since most lesser developed countries have more urgent requirements for other forms of assistance.

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SPECIFIC OFFERS OF ASSISTANCE TO BE MADE AT THE FIFTH GENERAL CONFERENCE

29. As in past years it is recommended that the U.S. should use the occasion of its major address before the conference to announce any specific offers of assistance it wishes to make in support of various IAEA programs. The following offers are recommended for incorporation in the speech.

a. Cost-free experts. In 1958, the U.S. offered to furnish to the Agency, on a cost-free or partially cost-free basis, 20 to 30 expert consultants to advise the Agency on its programs or to serve as short-term advisers to member countries. To date 28 such experts have been provided. It is believed that this program is of real benefit to both the U.S. and the Agency. It gives the U.S. the opportunity to guide and formulate Agency programs through panels and consultants and to send U.S. people to various areas of the world with benefit to the U.S. The Agency, on the other hand, obtains a source of qualified people for short-term assignments for which it otherwise has great difficulty in recruiting. It is therefore proposed that the U.S. continue this program and so announce to the General Conference.

b. Research Contracts. Under an offer made in 1958, the U.S. has financed 19 research contracts for projects referred to the U.S. by the IAEA. It is believed that this program has led to substantial scientific research which otherwise might not have been supported and which will make a worthwhile contribution to nuclear science. The cost of the contracts financed by the U.S. has been approximately $208,500. During the first year of the program separately budgeted funds were available. Since then, however, the projects have been financed by program division funds. Only those projects found to be of programmatic interest are financed. It is proposed to continue this program.

c. Cost-free fuel. At the Third General Conference the U.S. offered to donate during 1960 up to $50,000 worth of enriched uranium for use in Agency sponsored research projects or for medical therapy. This offer resulted in the allocation of fuel for use in the TRIGA Mark II research reactor being constructed in Finland. The U.S. offer was renewed at the Fourth General Conference for the current year and Yugoslavia has asked that the fuel be allocated to its research reactor project. The staff proposes that the offer again be made at the Fifth General Conference for Calendar Year 1962.

d. Small and Medium Power Reactor Trainees. Pursuant to an offer made at the Third General Conference, the U.S. has accepted representatives of the Agency staff to review its reactor program in significant detail. We should now like to broaden this assistance to include an offer to receive for consideration Agency nominations of

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a limited number of qualified trainees from underdeveloped countries for on-the-job training in the construction and operation aspects of our small and medium power reactor program. Limiting the offer to candidates from underdeveloped countries would have the likely effect of forestalling the submission of any nominees from the Soviet Bloc. The Agency would be expected to bear the costs of transportation and subsistence for the trainees under its training program.

e. Research centers on radiation processing of foods. The Division of Isotopes Development recommends that the Agency be urged to increase its efforts to focus world attention on the role radioisotopes and radiation technology can have in improving the economic well being of the world. In particular, the use of sources of radiation for food preservation and grain disinfestation should be emphasized.

Although a number of countries have research programs underway to expand food supplies through radiation technology, those countries that would benefit most do not have the financial and scientific resources for such programs. It is proposed that the Agency be urged to consider means to encourage the establishment of centers of research on radiation processing of food with special consideration to those countries where improvement in food handling techniques, as well as food requirements, will be benefitted most.

It is proposed that the U.S. offer to work with the Agency in developing a special program of assistance in support of such centers. In implementation of this offer, and subject to the appropriation of the necessary funds, the USAEC would be prepared to execute appropriate research contracts with the IAEA (which in turn would subcontract with Member States) contributing to the cost of the research programs in these centers. The AEC contribution to the project in addition to technical assistance and advice, would be limited to the amounts required to permit the center to acquire radiation sources and irradiators (exclusive of housing and supporting facilities). Funds to initiate this program are included in the Division of Isotopes Development's budgetary request for FY 1963 (see AEC 1070/8). It is estimated that this program would cost for three years at a cumulative cost to the AEC of not more than $750,000 to $1,000,000 depending on the number of meritorious proposals received.

The resulting increased magnitude of research on radiation preservation of food would expand the fund of scientific knowledge in this area. Inevitably this will enhance all research in this technology throughout the world including the AEC's program on the radiation preservation of foods. Such foreign research also would have auxiliary programmatic benefits such as the following:

(1) It would enable the U.S. and recipient countries to develop the knowledge and skills sufficient to cooperate internationally in setting up necessary standardized inspection and process control methods for the radiation pasteurization of food.

(2) It would enable developing countries to establish and maintain wholesomeness programs of sufficient magnitude to check out the U.S. data and satisfy all peoples as to the safety of the process.

(3) It would provide such countries as India with the tools to prove out basic technology developed in the U.S. in such areas as grain disinfestation.

(4) It would provide technical competence to the recipient countries which would allow a mutual base between the U.S. and other countries for confident reciprocal acceptance of imports.

30. In addition to the foregoing specific offers of assistance, it is planned to include the following major points in the U.S. statement at the Fifth General Conference:

a. Statute Review. Among the agenda items which the Fifth General Conference will consider is the question of whether it is desirable to hold a general review of the Statute at the Sixth General Conference in 1962. Consideration of this question at the Fifth General Conference is required by the Statute itself. The Department of State believes that a general review of the Statute should not be undertaken at this time. This stems from the fact that under the present Statute the composition of the Board of Governors is more favorable to the U.S. than it probably would be if the Statute were subjected to a general revision. Although there are some portions of the Statute which probably could be revised advantageously from the standpoint of the U.S., it is felt that they do not justify subjecting the entire document to an over-all review and to the pressures that predictably would be made by the USSR for a balance of power less favorable for the United States. (For example, the USSR might use the occasion of a general review to introduce "Troika" formulation and other debilitating changes in the Agency's Statute.)

b. Director General and Secretariat. Dr. Eklund should be approved as the new Director General. Every effort should be made to strengthen his authority and provide him with the opportunity to study and evaluate the Agency's administration and program.

c. Finances. Serious study should be given by the new Director General and the Board of Governors to the problem caused by the uncertainties associated with the voluntary fund and the extent to which the growth of important programs in the area of technical assistance have been handicapped.

d. Fellowships. The program of basic fellowships has now reached the stage where the Agency should make a thorough review of its results and of the use to which the training already provided is being put. This review should provide useful guidance as to the level at which the program should be conducted and any change in emphasis regarding the type of training that might best be provided.

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e. Research Coordination. In several fields the Agency has initiated useful programs looking toward research coordination and it should expand such activity. In addition, it should be alert to the needs of the atomic energy laboratories of various types that will be coming into operation during the next few years.

f. Reactor Safety. The Agency should expand its program of providing advice to Member States in the field of reactor hazards evaluation to include periodic reviews as well as initial hazards reports. A technical meeting on reactor safety should be convened giving special emphasis to operational safety factors.

g. Third Peaceful Uses Conference. A statement that the U.S. favors the convening in 1963 of a Third General Conference on The Peaceful Uses of Atomic Energy and believes that the IAEA should be charged with the responsibility for arranging this conference if one is held. It would be recommended that this conference should be more limited in scope than the previous conferences and should include isotope applications, power reactor experience and the role of nuclear energy in space exploration. The U.S. would urge the adoption of a resolution by the General Conference requesting the Director General to promptly study this proposal and to develop recommended plans and budgetary estimates for approval by the Board of Governors. This report would include an analysis as to whether a single conference or a series of more limited conferences would be preferable.

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APPENDIX "B"

SUMMARY OF DR. H. D. SMYTH'S COMMENTS TO CHAIRMAN SEABORG
(Staff Comment Inserted)

A. Nuclear Power

1. Dr. Smyth suggests that the U.S. Government clarify its policy toward the development of nuclear power around the world, specifically whether the U.S. is willing to subsidize such development and the role the IAEA should play in such policy.

2. With respect to possible U.S. subsidy he mentions such means as support of research and development, waiver of use charges on nuclear fuel and heavy water, high plutonium credit, and the furnishing of nuclear fuel to the IAEA at a lower price than the "commercial" price (which he apparently favors). He also calls attention to the need, if plants are to be built, for loans on a sound commercial basis and suggests the IAEA could play a role in arranging such loans but that U.S. help might be necessary.

3. Dr. Smyth finds the arguments in favor of working through the IAEA, rather than bilaterally, to be convincing and believes that safeguards are thus more likely to be accepted.

5. Staff Comment. As noted in Appendix "A", the staff believes that, as a matter of general principle, the USAEC should be prepared under special circumstances to extend special benefits to nuclear projects being built overseas, when the project involved is likely to significantly advance nuclear technology or contribute to the general growth of the industry. However, the degree to which such activities should be undertaken, the type of assistance that should be provided, and the role the IAEA should play in such efforts require further study.

6. The question of offering the Agency a substantial gift of special nuclear material or a preferential price has been the subject of extensive study in the past (see AEC 973/21). Such an offer could be utilized by the Agency in two ways (a) it could permit the Agency to make material available to users at an attractive price and thus contribute to the development of programs in Member States and induce nations to place their projects under Agency safeguards or (b) it could provide the Agency with revenue if the IAEA sold the material at or near the normal price charged by suppliers. Dr. Smyth appears to favor the former course of action. At one time Mr. Cole suggested that the Agency might have to place a special handling charge on material it distributed and requested a preferential price so that the Agency would not be at a price disadvantage in competing with material supplied bilaterally. This justification no longer appears valid since the Agency has found it unnecessary to place a handling charge on such material.

7. The donation of material to the IAEA for revenue-producing purposes has been rejected in the past for the following reasons: (a) It would conflict with the established mechanisms for for making financial contributions to the Agency (it is preferable to make U.S. contributions to the Agency in the form of dollars when these are related to identifiable program needs); (b) it would result in a U.S. contribution to the Agency that would far outweigh the contributions of other nations and thus make the Executive Branch susceptable to Congressional criticism, and (c) it would provide the Agency with an uncertain source of revenue.

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8. There are two ways in which the U.S. could, if it desired, provide the Agency with a price that would be more attractive than the price of material transferred bilaterally, or second, on the occasion of any subsequent general price reduction, the same price scale could be applied to material distributed domestically and material distributed through the IAEA but the full benefit of the reduction would not be given to material transferred bilaterally. While the latter course might be slightly more palatable to countries preferring to receive their materials bilaterally, either step would be open to serious criticism from those nations who have no desire or intention to go to the Agency for their fuel. These nations (notably the U.K. and the countries in Western Europe) also would be the ones most anxious to obtain the full benefits of the U.S. domestic price scale because of the greater demands they are likely to have for U.S. material. Accordingly, it is not recommended that the U.S. accord the Agency any preferential price on special nuclear material beyond the limited authority that permits the U.S. to donate to the Agency $50,000 worth of material each year. Rather, if the U.S. decides to provide special assistance to Agency-sponsored nuclear power projects, it is believed that such alternate methods of support as research and development support, deferred payment, or lease of fuel, etc. may be preferable.

B. Safeguards

9. Dr. Smyth notes that there remain strong objections to the inspection feature of safeguards and, to his knowledge, none of the objecting nations, except the Soviet Union, has any intention of diverting nuclear material to weapons use.

10. He states that the offer of the U.S. to place four reactors under Agency safeguards appears, when compared with the total

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list of U.S. reactors, as little more than a gesture and a fairly meaningless gesture. He asks that objection there might be to putting all U.S. civilian power producing reactors under the IAEA safeguards system and points out that, insofar as plutonium production in such plants is concerned, a competent graduate student could compute the quantities to within 10 to 20%. Apart from production secrets, he suggests that the only objection that could be raised is that the IAEA system might place some additional burdens on the U.S. He refutes this on the basis that the IAEA only requires data which any prudent op4rator would keep to judge the efficiency and safety of his plant operations.

11. Dr. Smyth, therefore, recommends that the U.S. invite the IAEA to safeguard all U.S. power-producing reactors, except those belonging to the Department of Defense or, alternatively, give up the whole notion of safeguards.

12. Staff Comments. On September 9, 1960, the Commission considered the feasibility of offering to place all U.S. power-producing reactors under IAEA safeguards (AEC 997/42). (Other major offers of U.S. facilities to IAEA safeguards were considered in AEC 997/39 and 997/43.)

13. It can be argued that such a broad submission to safeguards is consistent with the basic U.S. position on international control of atomic energy and might be a major step toward removing the objections of India et al to IAEA safeguards. The offer could be contingent on reciprocal participation by the USSR and other nuclear powers or made unilaterally. Either approach has been found in the past to have major disadvantages.

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14. The most significant problem stems from the fact that IAEA safeguards require the continued verification of peaceful use of produced plutonium. Previous studies indicate that considerable quantities of plutonium produced in the reactors and now allocated to the weapons program would have to be diverted to safeguarded peaceful use or (under the procedures adopted by the IAEA) kept in inactive safeguarded storage.

15. The loss of U.S. plutonium, of course, could be compensated by modifications to the present production reactors but would require a significant capital and annual operating cost. Appendix "E" (being circulated separately) outlines these problems in more specific detail.

16. The foregoing problems, inherent in a large offer, were considered by the Commission before action was taken at Meeting 1649 on September 9, 1960, to offer to place only four U.S. reactors under the Agency's safeguards system. As announced, the purposes of the approved offer were simply to demonstrate the workability of IAEA safeguards and provide experience and training for the Agency's inspectors.

17. Regarding Dr. Smyth's suggestion that none of the critics of the U.S. position (except the USSR) is likely to divert materials to weapons purposes, it is felt that in both the fields of disarmament and safeguards, a simple guarantee of peaceful use without appropriate verification is not adequate. This is because the intent of a nation receiving assistance, even if peaceful, is subject to change. Adequate safeguards can deter and possibly prevent countries that do not now have a nuclear weapons capability from acquiring such a capability

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through assistance which they may receive from the Agency or under Agency safeguards. Two situations illustrate the importance of this consideration:

a. Many observers now believe that the Indian Government, while probably not actively working on a nuclear weapons program, is seeking to lay the foundation for such a program if later developments lead it to feel that a nuclear weapons capability is in its best interest.

b. The recent Arab bloc reaction to nuclear developments in Israel emphasizes the speculation, fear, and tensions which can arise in the absence of independent and objective safeguards measures.

18. In view of these considerations it does not appear that a major change in U.S. safeguards policy along the lines proposed by Dr. Smyth is warranted at this time although over-all U.S. objectives in this area should be reassessed periodically.

C. Possible New Activities for IAEA

19. Under this topic Dr. Smyth recalls the discussion at the White House in Dr. Wiesner's office (see Appendix "A") on enlarging the scientific scope of the Agency and comments on the following:

a. Joint projects involving the Soviet bloc and the West--some of the possibilities include an ultra high energy accelerator, an advanced high flux reactor, and a biomedical accelerator. Although the role that the Agency should have is not clear, he suggests that the Agency should at least participate in any discussions.

b. Plowshare--Dr. Smyth thinks that transfer of the Plowshare program to the Agency might convert it from a political liability to a political asset. He questions whether the Soviets could oppose such "an operation" without embarrassment and considers that Agency personnel could provide a badly needed review of the economics of the program.

c. Outer-space--Perhaps the IAEA should begin to interest itself in civilian uses of satellites for communication and weather studies on the basis of the use of compact nuclear power plants.

d. Disarmament--Dr. Smyth considers that the suggestion the Agency take on disarmament inspections

should be held open as a possibility but that serious consideration is premature.

20. Staff Comment. The organization of large-scale joint projects through the Agency is, by virture of the coordination problems involved, likely to require some time to achieve. While the discussions of a new and novel accelerator are the only ones that have progressed to the international level, it is a project of major proportions with correspondingly greater difficulties than other more modest projects such as Dr. Smyth mentions. The more modest projects should, therefore, continue to be considered, along with the question of the nature of the Agency's role in each. Thorough study of such projects should be developed before they are advanced.

21. In view of the recent breakdown in the negotiations with the USSR on resumption of testing, it is believed that it would be untimely, for the following reasons, for the U.S. to advocate that the IAEA take on any specific responsibilities for Project Plowshare:

a. If Dr. Smyth has in mind giving the Agency a responsibility for verifying the peaceful uses of any experiments, the Agency would have to have complete access to the devices involved in the development and operation stage. Furnishing such access to the Agency at this time would be highly questionable.

b. If it is envisioned that the Agency would take on the responsibility for directing and administering the program, not only would this present difficulties related to access to the devices, but it also would probably have a disruptive effect on the efficient execution of the program, assuming the U.S. decides to go ahead at full speed at this time. Specifically, the potential of Plowshare can best be developed by keeping the program on a basis which will permit the most rapid development of the technical and safety factors involved. The technical background of the AEC and its experience in the complex problems of conducting the operations involved are essential to this development and could not effectively be transferred to the IAEA. Such action also would jeopardize the freedom of action of the U.S. in determining when, where and how to proceed with further developing the necessary technology. Additionally, for some time to come,

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there will be a necessary inter-relation between Plowshare and national security. This is particularly true with respect to device development, but also pertains to control over debris, materials, and test operations know-how.

c. Given recent political developments, a proposal to turn important responsibilities in this area over to the IAEA at this time probably would generate a vigorous political debate within the Agency and it might make the U.S. vulnerable to criticism that it is trying to use the IAEA as a cover for its recent decision to resume weapons testing.

d. Regarding the possibility of getting the IAEA involved in Plowshare applications overseas, the State Department generally has urged that such applications should be fully tested in the U.S. before they are applied overseas and that international promotion of this program should be avoided for the present. This suggests that the IAEA should not be asked to take on any promotional or even advisory responsibilities to Member States in this area until substantially greater experimentation takes place.

22. Accordingly, while the possibilities of IAEA involvement in this area should be kept in mind, specific proposals should be deferred until the technology has advanced significantly further. After developing the technology, it may be desirable to carry out specific Plowshare projects under IAEA auspices. In the meantime consideration should be given to inviting the IAEA to participate in the observation of any Plowshare experiments open to foreign attendance.

23. With regard to the economics of the program, the Plowshare Advisory Committee has maintained a constant review of the detailed analyses that have been made by the Livermore Laboratory and other groups, and the staff feels that the economics are thus receiving as thorough study as possible in advance of further active field experience.

24. The staff agrees that, if the scope of the Agency's activities is to be enlarged, as discussed at the White House

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meeting, the space field may be a logical area for exploration. The Division of Reactor Development does not consider collaboration with the Agency in space matters to be appropriate at this time because of classification limitations and because the development of several nuclear applications are still in an early stage. Any suggestions for Agency involvement should be discussed with other major powers, including the Soviet Union if possible, before making a pblic proposal to the Agency.

25. The Staff agrees with Dr. Smyth's views on the disarmament inspection possibility.

D. Present Activities of the IAEA

26. Dr. Smyth concludes that all of the present activities of the Agency are worth doing and are being done well. He divides the activities into two categories, (1) those obviously appropriate and (2) those not uniquely appropriate to the IAEA. In the latter category he places the provision of experts and equipment, fellowships, research contracts that are in effect part of technical assistance, conferences and symposia, publications, library, and general research not directed to immediate problems of the Agency.

27. Staff Comment. In general, the Staff agrees with Dr. Smyth's division of Agency activities into the categories he has chosen. The Staff does not believe, however, that there should be any implication in the list of activities not uniquely appropriate to the IAEA that the Agency should not be engaged in these activities. The Agency's involvement in technical assistance operations such as furnishing experts and equipment and fellowships follows the pattern in the "UN family" under which specialized agencies frequently conduct such activities

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in their areas of specialization. Research activities, conferences and symposia are similarly conducted by the various specialized Agencies. There seem to be no more valid grounds for the IAEA to abandon activities in its field of specialization to other Agencies than for the latter to abandon them to the IAEA (see Appendix "A" for further discussion on the value of the Agency's technical assistance program). There should, however, be coordination among the agencies to eliminate duplication of effort in overlapping areas of activity.

E. Agency Staff and Organization

28. Dr. Smyth agrees with the view that the Agency has a good staff and good morale. Although the staff may be too large and the distribution of functions could be improved, he regards these as problems the new Director General should be allowed to study.

29. Staff Comment. The Staff agrees that the new Director General should be given the opportunity to review the Agency's staff and organization and the distribution of functions within the organization before any major changes in the Agency's program are proposed.

F. Board of Governors

30. Dr. Smyth states that the Board is too big, meets too often and long, spends hours on trivial matters that should not be before it, and gets involved in political debate irrelevant to Agency problems.

31. He concludes that the number of members cannot be reduced because the effort would lead to a general Statute revision. A reduction in the number of meetings depends upon

fewer matters being brought before it and greater mutual confidence between the Board and the Director General. Although Dr. Smyth is not convinced that political debate can be reduced, he believes the U.S. should consider concessions on questions that have no substantive relation to the Agency and questions whether the U.S. needs to answer every repetitive restatement of irrelevant criticisms or lies about the U.S.

32. Staff Comments. With respect to the number of Board meetings the best hope for a reduction appears to lie, as Dr. Smyth suggests, in a development of greater confidence between the Board and the Director General. This will result in greater discretion of action being assumed by the Director General without objection by the Board. With fewer matters thus being referred to the Board, a reduction in the number of meetings may be brought about. The elimination of political debate is a desirable objective but not wholly achievable. An organization of governments inevitably leads to the necessity of maintaining consistency in governmental positions on issues such as Chinese representation, the World Federation of Trade Unions, and acceptance of Hungary. Although such matters do not always appear to have a substantive relationship to the Agency, they do have a direct bearing upon the U.S. position in the United Nations and other organizations. To the extent that the U.S. position on such issues can be protected and the U.S. itself protected from abuse and misrepresentation, it is agreed that not all statements by the Soviet bloc representatives need be answered and that political debate should be minimized.

G. The General Conference

33. Dr. Smyth suggests it is desirable to have the General Conference meet biennially rather than annually, but if this

change should require a general review of the Statute, it is probably not worthwhile.

34. Staff Comment. While there may be merit in biennial meetings, it appears to the Staff that, at this state in the Agency's development, an annual conference serves a useful purpose in focusing the attention of the members on the needs of the Agency--particularly as to finance. In addition, under the terms of the Statute, the Conference is charged with certain important responsibilities that now must be performed annually (it approves the budget and votes members to the Board) and a change to biennial meetings would require several other changes in the Statute.

H. Finance

35. Although the present system of two budgets (one assessed, one voluntary) is confusing and make for serious uncertainties as to what the actual level of effort will be each year, Dr. Smyth believes changes should await the recommendations of the new Director General.

36. Staff Comment. The Staff agrees that changes in the budgetary system of the Agency should await the recommendations of the new Director General. Responses to the voluntary budget of the Agency have not been good. One solution to this might be to place all or substantially all activities under the assessed budget. This, however, would appear to require an amendment to the Statute and, with the question of a general review of the Statute before the General Conference, it would not be wise for the U.S. to jeopardize its position against such a general review by proposing specific amendments at this time.

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APPENDIX "C"

OUTLINE OF SIGNIFICANT FACTS RELATING TO MAJOR ACTIVITIES PERFORMED BY THE IAEA

A. Organization and Finance

1. The General Conference of the IAEA of all members (75) meets annually.
2. The Board of Governors (consisting of 23 members) meets 4-5 times a year.
3. The Secretariat (as of 4/30/61) consists of 223 professional and 298 general service staff personnel (see organization chart attached).
4. The summary budget figures for the years 1958 through 1962 (estimated) are:

	Regular Budget (assessed) 1/	Operational Budget (voluntary) Approved Program	Actually Pledged
1958	4,089,000	250,000	250,000
1959	5,225,000	1,500,000	1,183,044
1960	5,843,000	1,500,000	996,103
1961	6,168,000	1,800,000	1,181,372
1962	6,261,000	2,000,000	2/

1/ Based on UN percentage assessments.
2/ Pledges to be made at General Conference in September.

B. Program Activities

1. Distribution of Materials

a. The U.S., the U.K., and the U.S.S.R. have agreed to provide, respectively, 5,070, 20, and 50 kilograms of U-235 for use in IAEA projects. To date, specific allocations totaling 47 kilograms have been made to research reactors in Finland, Yugoslavia, and Norway.

b. Canada has allocated approximately 3,000 kilograms of natural uranium to the IAEA for use in Japan. Portugal and South Africa also have agreed to provide uranium concentrates and India and Ceylon to supply thorium.

2. Safeguards

During 1962 nominal Agency safeguards will be applied to the Finnish, Norwegian, Japanese, and Yugoslav projects receiving IAEA materials. The Agency also may apply safeguards to the U.S. bilateral Agreements with Japan, Norway, and other countries.

3. Technical Assistance

a. Missions

From 1958 through 1961, the IAEA will have undertaken 9 preliminary assistance missions to groups of Member States whose programs are just beginning. These missions study the needs of the countries concerned,

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make recommendations for future programs and suggest ways in which the IAEA can provide assistance. Detailed IAEA surveys were made of the Philippines and Finland to determine the likely role nuclear power might play in these countries.

b. Experts

Since 1958, 135 requests for experts in the fields of nuclear and reactor physics, instrumentation, health physics, chemistry, application of radio-isotopes, reactor design and nuclear raw materials have been approved for assignments in 30 different countries, all but 5 of which are in Asia, Africa or Latin America, at a total cost of $1,353,629. 87 Agency-assigned experts now are or will soon be in the field. Cost-free experts have been offered to the IAEA by the U.S.A., the U.S.S.R., France, Czechoslovakia, Japan, and Yugoslavia.

c. Equipment Grants

Equipment grants totaling over $1,260,000 in value have been awarded to the following 21 countries: Afghanistan, Argentina, Austria, Brazil, Burma, Ceylon, Greece, Iceland, Indonesia, Iraq, Israel, Pakistan, Philippines, Sudan, Thailand, Tunisia, Turkey, United Arab Republic, Venezuela, Viet-Nam, and Yugoslavia. These grants generally have covered modest pieces of equipment (such as radiation detection instruments, spectrometers, and laboratory equipment for radio-isotope laboratories) for uses in research on various applications of radioisotopes, health physics, radiation protection, metallurgy, geology, and radiochemistry. Of the foregoing amount, the U.S. has agreed to donate equipment in kind valued at $280,000.

4. Research and Research Facilities

a. Research Contracts awarded through 1960 total $898,176 in amount. For 1961 about $620,000 is expected to be awarded for a cumulative total of $1,518,176. Roughly 75% of these funds are for work on radiobiology, health physics and waste disposal, and about 25% on application of isotopes, safeguards methods and power reactor studies. $825,000 has been budgeted for 1962. The U.S. has financed 19 contracts totaling $208,514 under a separate joint program with the Agency.

b. Since 1958 the Agency has had a small functional laboratory in its headquarters building. The work performed has been principally in the fields of metrology and standardization, environmental contamination, and chemistry. The permanent laboratory at Seibersdorf, made possible by a U.S. grant of $600,000, will be completed in 1961. The laboratory will emphasize research in standardization of isotopes and preparation of radioactive standards, calibration of measuring equipment, measurements and analyses regarding Agency safeguards, and health quality control of special materials and special services for members.

5. Training

a. Training Courses

Four international training courses, dealing with the applications of radioisotopes in medicine and agriculture, were organized or co-sponsored by the IAEA in the U.S.A., Argentina, India, and the Congo. Similar courses are planned for the future.

b. Fellowships - Nominations were received from 54 countries for study in 29 countries.

IAEA Fellowships

	Nominated	Selected
1958	287	219
1959	577	380
1960	648	468
1961	598 3/	291 4/
Total	2,110	1,358

3/ As of June 8, 1961.
4/ As of March 31, 1961.

c. Mobile Laboratories

Two mobile radioisotope laboratories donated by the U.S. have been used by the Agency to provide radioisotope training courses in Europe, the Far East, and Latin America. The tours are continuing.

d. Visiting Professors

The Agency also supports a limited number of exchanges of professors and advanced research personnel between Member States.

6. Advice on Regulatory Matters

a. The Agency has formulated basic standards concerning third party liability for nuclear damage, safe handling of radioisotopes, safe operation of research reactors and critical assemblies, and regulations for the transport of radioactive materials.

b. Advisory assistance in the field of reactor hazards evaluation also has been provided to Switzerland and the Netherlands.

7. Information

a. Panels

From 1958 through 1961, the Agency will have convened 46 informal advisory panels on topics such as the development of recommended safety and transport regulations for handling nuclear materials, civil liability in case of nuclear accidents, international problems associated with radioactive waste disposal, radioisotope applications, safety manuals for critical assemblies and research reactors, reactor physics, nuclear power and fuel cycle costing, and radioactive materials in the environment.

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b. Publications

The Agency has published or will publish the proceedings of 22 technical meetings, reports of 6 panels, 5 technical directories, 6 volumes in the Safety Series, 2 in the Technical Report Series, 1 in the Legal Series, and 15 in the Review Series. It also publishes the quarterly journal on nuclear fusion, the quarterly IAEA Bulletin, and various program brochures, lists, and other documentary material.

c. Library

The IAEA maintains a central depository library -- now containing over 49,000 scientific and technical publications.

d. Conferences

IAEA Conferences and Symposia 1959-1962

Title	Location	Date	Joint Sponsorship With
Symposium on Radioactivation Analysis	Vienna, Austria	6/1-3/59	International Union of Pure and Applied Chemistry
Symposium on the Immediate and Low-Level Effects of Ionizing Radiation	Venica, Italy	6/22-26/59	UNESCO
Conference on the Application of Large Radiation Sources in Industry and Especially to Industrial Chemical Processes	Warsaw, Poland	9/7-12/59	None
Symposium on Radioactive Metrology of Radionuclides	Vienna, Austria	10/14-16/59	None
Symposium on Radioactive Wastes	Monaco	11/16-21/59	None
Symposium on Fuel Element Fabrication	Vienna, Austria	5/10-13/60	None
Symposium on Radiation Dosimetry in Physical Sciences	Vienna, Austria	6/5-9/60	None
Symposium on Seed Irradiation	Karlsruhe, Germany	8/8-12/60	FAO
Conference on Medium and Small Power Reactors	Vienna, Austria	9/5-9/60	None
Conference on Radioisotopes	Copenhagen, Denmark	9/6-17/60	UNESCO

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IAEA Conferences and Symposia 1959-1962 - (cont'd)

Title	Location	Date	Joint Sponsorship With
Symposium on Inelastic Scattering of Neutrons in Solids and Liquids	Vienna, Austria	10/11-12/60	None
Symposium on Pile Neutron Research	Vienna, Austria	10/17-21/60	None
Symposium on Chemical Effects of Nuclear Transformation	Prague, Czechoslovakia	10/24-27/60	None
Symposium on Nuclear Ship Propulsion	Taormina, Italy	11/14-18/60	Intergovernmental Maritime Orgn.
Symposium on Radiation in Entomology	Trombay, India	12/5-9/60	UNESCO
Symposium on Radioisotope for Tropical Diseases	Bangkok, Thailand	12/12-16/60	WHO
Symposium on Tritium	Vienna, Austria	4/10-14/61	Joint Commission on Applied Radioactivity
Conference on Nuclear Electronics	Belgrade, Yugoslavia	5/10-20/61	None
Symposium on Radiation at the Molecule Level	Brno, Czechoslovakia	May 29-June 2, '61	None
Symposium on Whole Body Counting	Vienna, Austria	6/5-9/61	None
Symposium on High Level Wastes	Vienna, Austria	7/3-8/61	None
Conferences on Radioisotopes in the Biological Sciences	Vienna, Austria	Aug. 23-Sept. 1, '61	FAO WHO
Conference on Plasma Physics	Salzburg, Austria	9/4-9/61	None
Conference on Power Reactor Experiments	Vienna, Austria	10/23-27/61	None
Symposium on Radiation Damage	Vienna, Austria	Nov. 27 - Dec. 1, '61	None
Symposium on Programming of Research Reactors	Vienna, Austria	10/16-20/61	None
Conference on Fast and Intermediate Reactors	Vienna, Austria	8/3-11/61	None
Conference on Radioisotopes In Animal Biology	Mexico City, Mexico	Nov. 21-Dec. 1, '61	WHO FAO

[redacted]

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APPENDIX "D"

Support to the IAEA by the US, the UK and the USSR

Items	US	UK	USSR
1. Regular Budget			
1958	$2,029,464	$ 439,017	$ 784,827
1959	2,348,848	527,425	913,240
1960	2,549,759	566,265	991,355
1961	2,648,883	588,096	1,029,985
	$9,576,954	$2,120,803	$3,719,407
2. Operational Budget			
1958	$ 64,570	$ 25,000	$ --
1959	591,522	125,000	125,000 1/
1960	500,000	125,000	--
1961	590,871 2/	140,000	--
	$1,746,963	$ 415,000	$ 125,000
3. Cost-free materials for research	$100,000 3/ worth U-235	6½ tons heavy water (loaned)	No comparable offer
4. Facilities:			
Permanent laboratory	$600,000	No comparable offer	Opposed laboratory
2 mobile radioisotope laboratories	$118,700	No comparable offer	No comparable offer
5. Special equipment grants	$272,000	None	None
6. Research contracts financed (19)	$208,514	None	None
7. Fellowships offered	270 (valued at $1,940,000)	Unspecified number offered	45 (value unknown)
8. Cost-free consultants offered 4/	20-30	Unspecified number offered	20-30

1/ Nonconvertible roubles earmarked for equipment which IAEA has not been able to utilize.
2/ At April 30, 1961. Subject to increase up to $750,000 to match contributions from other members
3/ $50,000 allocated to Finnish research reactor and $50,000 offered for 1961.
4/ 28 from US used by IAEA at cost of approximately $97,500. No comparable UK or Soviet figures available.

[redacted]

CO[redacted]

		US	UK	USSR
9.	Small power reactor assistance	IAEA participation in US projects	No comparable offer	No comparable offer
10.	Library items	About 30,000	Unknown	About 200
11.	Materials available for sale or lease:			
	Kilograms of U-235	5,070	20	50
	Source materials	If not available commercially	No comparable offer	No comparable offer

APPENDIX "E"

CONSIDERATIONS RELATING TO PLUTONIUM PRODUCTION

Appendix "E" is being circulated separately as AEC 973/57.

[redacted]

APPENDIX "F"

August 30, 1961

MEMORANDUM FOR

Dr. Eugene B. Skolnikoff,
Technical Assistant,
Office of the Special Assistant
for Science and Technology,
The White House.

SUBJECT: RESPONSIBILITIES OF IAEA

Your useful summary of the meeting on the IAEA held on July 26, which you put in a memorandum to Dr. Smyth dated July 29, contains one point which appears to me to have been misinterpreted. This is the question of the possible expansion of the activities of the IAEA, as set forth in paragraphs 3 and 4 on the first page of your memorandum.

There was clearly a consensus at the July 26 meeting that we should avoid setting up new international scientific organizations until a clear-cut need was evident, and we should make use of the staffs and resources of existing organizations such as the IAEA (and UNESCO) whenever appropriate. I did not understand, however, that the IAEA was to get special priority in this connection, and I thought the point was conceded that the Agency ought to move into fields allied to or overlapping with atomic energy rather than distinct fields in the first instance. I am particularly concerned with references I have recently seen to the Agency interesting itself in meteorological satellites and space communications on the basis of this "White House agreement". We certainly do not want to push the IAEA into jurisdictional disputes with agencies concerned with specific space applications, such as the ITU and WMO.

Philip J. Farley
Special Assistant to the Secretary
for Atomic Energy and Outer Space