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President: Mr. SARASIN (Thailand)

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*. GC(X)/343.

ADOPTION OF THE AGENDA AND ALLOCATION OF ITEMS FOR INITIAL DISCUSSION [GC(X)/342]

The PRESIDENT suggested that the Conference accept the recommendations made by the General Committee in regard to the agenda and the allocation of items for initial discussion [GC(X)/342].

2. *The recommendations of the General Committee were accepted, and the agenda was thereby approved.*

GENERAL DEBATE AND REPORT OF THE BOARD OF GOVERNORS FOR 1965-66 [GC(X)/330, 341]

3. Mr. SEABORG (United States of America) said that on the occasion of the tenth regular session of the General Conference, he would like to congratulate all who had contributed to the Agency's success, which was in many respects unparalleled among international organizations; he looked forward to even greater achievements in the future. He particularly welcomed the presence of the

Agency's first Director General, Mr. Cole, the Chairman of the Preparatory Commission, Mr. Bernardes, the Executive Secretary of the Preparatory Commission, Dr. Jolles, the President of the first General Conference, Ambassador Gruber, and the Chairman of the first Board of Governors, Mr. Winkler. Those men had played a pioneering role in setting up and launching the Agency.

4. He now wished to read the following message to the Conference from the President of the United States of America:

"I welcome this opportunity to speak, through Chairman Seaborg, to the delegates to the 10th General Conference of the International Atomic Energy Agency. I believe it is highly significant that you are participating in the 10th annual meeting of this organization, which has grown in such a short time to an organization of 96 Member States and which has contributed so much to the development of the peaceful uses of nuclear energy.

"The IAEA had provided the means whereby all of its Members can work together and share the scientific developments of many nations. Exciting advances in nuclear applications have been made in the service of mankind. The atom has been unlocked and its energy harnessed; the technologies of nuclear power and desalting can be joined to convert saline water to fresh water, and the isotopes that come from nuclear research offer unusual applications and promise in medicine, and agriculture and industry. This work is of the utmost importance to the future of mankind and must be continued with increasing effort and support. At this time let me renew my country's pledge to assist the IAEA in the future as we have in the past in the full pursuit of its goal and enormous potential.

"I should like to emphasize to you my country's dedication to three principles which are of particular relevance to this Conference. We are deeply committed to the principle of international co-operation for peace in every field of human endeavour. We believe strongly in sharing the benefits of scientific progress and we have consistently acted on this belief. And we have worked, and will continue to work, toward the economic development of the world's less developed countries.

"If nuclear energy is to play its rightful role in contributing to these goals, the Agency has a crucial responsibility to see that the vast beneficial uses of nuclear energy are not

diverted for military purposes. I cannot say often enough that the prevention of the spread of nuclear weapons is one of the most important tasks of our times. We look on the Agency's safeguards system as one of the principal instruments for accomplishing this task. The United States Government fully supports the Agency system and we will do all in our power to support the continued growth and technical effectiveness of the system. But its success depends on the support of all Members — and I urge all Members to foster the continued healthy development and widespread application of this vital system.

"On behalf of the people of the United States, I send you congratulations for your achievements and very best wishes for your future undertakings."

5. From his experience as Chairman of the United States Atomic Energy Commission during the past five years, he considered that the Agency had made a significant contribution to the achievement of the objectives mentioned in President Johnson's message. It had planned its activities to keep pace with and promote technical and economic developments with regard to nuclear power and radiation applications and their potential uses, particularly in the developing countries, while at the same time carefully developing a safeguards system to ensure that nuclear energy was used for peaceful purposes only. Its programme for the next two years reflected the same imaginative planning and deserved the support of all Member States.

6. Remarkable progress had been made in the various uses of nuclear energy since the first General Conference in 1957. The number of research reactors had risen from about 60 in 18 countries to more than 270 in 47 countries, and the electricity generated in nuclear power stations had increased from about 40 000 kilowatts to about 8 million kilowatts.

7. One of the Agency's major achievements was the development of a safeguards system designed to ensure that nuclear energy projects would serve only peaceful purposes. That system had been impartially administered and had not interfered with the normal operation of facilities. Since Member States, if they were to accept it, must have confidence in the system, he welcomed the Director General's suggestion for an external evaluation to ensure it was sound.

8. The recent extension of safeguards procedures to reprocessing plants was a further important development and the United States was arranging for the application of those procedures to the Nuclear Fuel Services reprocessing plant in West Valley, New York, in connection with the pro-

cessing of irradiated fuel from the Yankee Nuclear Power Station, which was subject to safeguards. As a result the Agency could gain experience in applying safeguards and training its personnel. He urged the Agency to extend its safeguards procedures to fuel fabrication and associated recovery processing.

9. It was obvious of course that with the growing number of nuclear installations the Agency would need more and more qualified inspectors. His Government would be glad to assist the Agency in connection with the proposed training courses in nuclear materials management and other safeguards techniques, intended for the employees of nuclear energy organizations.

10. Taking note of the Secretariat's feeling expressed in the Programme for 1967-68 that the safeguards staff need not be increased in direct proportion to the growth of the operational safeguards activities ¹⁾, he stated his belief that it was essential that the Division of Safeguards and Inspection be provided with the necessary staff for fulfilling its responsibilities at all times.

11. He welcomed the agreement between the Agency and the United Kingdom to place the Bradwell nuclear power station under safeguards, which would promote the establishment of widely accepted international safeguards with uniform standards and methods of inspection, and hoped other countries would take similar steps. It was gratifying that the number of reactors under safeguards or containing safeguarded material was now 54 and that agreements had been signed whereby the administration of safeguards under thirteen bilateral agreements between the United States and other countries had been transferred to the Agency. His Government also registered with the Agency all international transfers of nuclear material, on a semi-annual basis, and he hoped other Governments would do likewise.

12. The development in the use of nuclear energy for power purposes had been amply demonstrated by the rapidly increasing number of power reactors being constructed or planned. It had been foreseen in 1962 that the United States would have a nuclear generating capacity of 5 million kilowatts by 1970 and 40 million kilowatts by 1980; it was expected that by the turn of the century all new generating capacity would be nuclear in origin. In view of the increased availability of power from nuclear plants at costs competitive with conventionally fuelled systems, it was now foreseen, however, that by

1970-71 the generating capacity would exceed 10 million kilowatts and by 1980 would be between 80 million and 110 million kilowatts. The Agency could continue to make a considerable contribution to the development of nuclear power in matters such as reactor siting, health and safety, the evaluation of nuclear power needs and the dissemination of the latest technical and economic information on various reactor types.

13. The shortage of fresh water presented a serious problem. In the United States, for example, there had been a nine-fold increase in water consumption during the past 65 years, and it was expected that the total supply of water at present available would be required to meet the demand in 1980. Thus it was necessary to supplement the water supply, and one of the most promising methods was desalting — a unique method which, when coupled with nuclear power, would make it possible to take advantage of the almost limitless resources of nuclear energy and the favourable economics of large-sized desalting plants.

14. Agreement had recently been reached in the United States to construct the largest nuclear-fuelled desalting and electric-power plant ever built, which would produce 150 million gallons of fresh water per day together with 1800 megawatts of electric power. The fresh water produced would be more than double that now produced by all the desalting plants in the world and would supply a city of 750 000 inhabitants; the average cost of delivered water was expected to be 27 cents per thousand gallons. The Agency had been provided with the technical and economic feasibility reports concerning the plant. The Agency had taken several constructive steps to assist Member States in assessing possible uses of such dual-purpose plants. Its panel meetings on nuclear desalting were extremely useful and the United States intended to participate in the Panel on Nuclear Reactors for Desalination Applications to be held in November. The Agency had also provided the Chairman and Secretary of the joint Mexico-United States-Agency study group on the technical and economic feasibility of a large dual-purpose plant to meet water and power needs in Mexico and the United States, and a similar study with a view to meeting such needs after 1970 in the Athens area was now being carried out by Greek and United States specialists, the results of which would be sent to the Agency. The Agency had also taken part in the joint Israel-United States power and desalting project study. He was glad to note that the Agency planned further surveys on nuclear desalting in its 1967-68 programme. He hoped the Agency would participate in the International Water for Peace Conference to be held in Washington in May 1967 and welcomed the Agency's proposal to hold a symposium on nuclear desalting in 1968, perhaps in the United States.

1) GC(X)/332, para. 260.

15. He suggested that the Agency should also consider holding a symposium on nuclear ship propulsion in 1968.

16. During the past ten years there had been a dramatic increase in the use of radioisotopes and radiation sources in medicine, agriculture, food irradiation, insect-pest control, water-resource studies and industry, and further exciting developments were expected in the future. In that respect it was gratifying that the Agency and the Joint FAO/IAEA Division of Atomic Energy in Agriculture planned to carry out constructive work during the next two years.

17. Worth-while work was being done at the Agency's Laboratory in Seibersdorf, the International Centre for Theoretical Physics in Trieste, the Laboratory of Marine Radioactivity in Monaco, the Middle Eastern Regional Radioisotope Centre for the Arab Countries in Cairo and the centre in Manila. The Trieste centre, which had been started as an experiment, had surpassed all expectations. Its work had been acclaimed by theoretical physicists and it had provided scientists from developing countries with training and opportunities to carry out research. More than 110 physicists from over 42 countries had worked there so far. Highly successful seminars on plasma physics and high-energy physics had been conducted and it was planned to hold a seminar in 1967 covering the whole spectrum of theoretical physics. In June 1966 a research project in which an outstanding plasma physicist from the Soviet Union and one from the United States had been engaged had been successfully completed.

18. He commended the Agency's work in disseminating information and facilitating the international exchange of nuclear and reactor-physics data and welcomed its efforts to devise an International Information System. It would also be useful if it co-ordinated the activities of various national or regional centres which were to be established. He was pleased that the Agency-sponsored Symposium on Neutron Thermalization and Reactor Spectra was to be held at the University of Michigan in July 1967.

19. He appreciated, in particular, the Agency's extensive technical assistance activities and welcomed the efforts to co-ordinate all types of assistance that were useful in a specific project, and to relate each project to national and regional nuclear energy activities and to overall economic development. Such integrated programming was difficult, but it was worth-while in view of the Agency's limited resources.

20. He approved the budget and hoped that the Agency would be able to carry out all its activities

with the funds requested. He was pleased to renew for 1967 the United States offer to donate up to \$50 000 worth of special nuclear material for use in Agency projects in research and medical therapy. The United States would continue to make available on a cost-free basis the services of experts, training opportunities and certain items of equipment. It would continue to contribute to the Library copies of all scientific and technical reports published during the year by the United States Atomic Energy Commission concerning the peaceful uses of nuclear energy, together with prints of the Commission's technical films.

21. His Government assured the Director General and the Secretariat of its continued support and would continue to nominate outstanding people for Agency appointments.

22. It was obvious that the Agency's capabilities had already greatly increased, but it was called upon to discharge a formidable task in meeting the growing demands of Member States. He hoped therefore that Member States would make a special effort to mark the present anniversary year by increased co-operation and thus encourage the Agency in its work in the years to come.

23. Mr. QUIHILLALT (Argentina) recalled that just ten years had passed since the Statute creating the Agency had been approved at the Headquarters of the United Nations; with that the historic proposal of President Eisenhower, first put forward three years earlier in the General Assembly, had taken definite shape. The occasion had a special personal significance for him (Mr. Quihillalt), for he had been privileged to participate from the very beginning in the work which led to the Agency's creation, and it had been his honour to share the ideals which had prompted its establishment.

24. The finest expression of those ideals was to be found, perhaps, in the introduction to the report of the Preparatory Commission²⁾, where it was said:

"Atomic energy has been, in the years since the Second World War, the object and the symbol both of the highest hopes and of the deepest fears of mankind. After the initial shock of the realization of its destructive powers, the world is awakening to the expectation of the great benefits which it can also bestow. But as the veils of secrecy and mystery are gradually put aside, it has become increasingly clear that the development of atomic energy for peaceful purposes demands a high degree of international co-operation.

2) Document GC.1/1.

. . . . "Nor must the broadening of the peaceful applications of atomic energy carry the danger of increasing the military potential. The creation of a reliable system of safeguards against diversion of fissionable material to military use is therefore an equally important part of the foundation of confidence upon which alone the Agency can build an effective programme in the future. It is in this way that the Agency can contribute, not only to prosperity, but also to world peace."

25. The ideals outlined by the Preparatory Commission had found expression in the Agency's basic objectives — "to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world".

26. The tenth session of the General Conference offered an excellent opportunity to assess the work that had been accomplished, to compare hopes and ideals already realized, and, in sum, to see how far the Agency's objectives had actually been achieved. He wished to state quite categorically that Argentina was satisfied with the Agency's work, and to express the hope that the organization would go on to fulfil all the ideals set out in the Statute.

27. The first positive result of the Agency's establishment had been the immediate response of scientists, technicians, students and men of goodwill throughout the world, who had shown their determination to collaborate in an enterprise which brought them, for the first time, both an international forum where they could express their fears and an opportunity to apply, on a world-wide scale, their knowledge and special abilities. That international forum has subsequently served as a catalyst, promoting an active exchange of opinions and information about theoretical and experimental work among scientists and technologists throughout the world. The task had been accomplished by means of countless seminars; by exchanges of scientists; by the co-operation of experts; by the granting of fellowships; by training courses and the dissemination of information; and by the establishment of laboratories and international centres such as the one in Trieste.

28. Those accomplishments alone would have been sufficient to justify the Agency's ten years of work; but it had also provided important assistance for the less-developed countries, by sending experts and technical assistance missions, by supplying instruments and equipment and, not least, simply by adding the weight of its authority to national projects.

29. Argentina was discharging a debt of gratitude by publicly testifying to the value it attached to

assistance received from the Agency; and it should not be forgotten that Argentina's geographical position might have militated against progress in nuclear science. The happy circumstances of belonging to an organization such as the Agency had enabled his country to overcome that disadvantage. Argentina had thus found an active role for itself in atomic energy work, had become a member of a community of nations with nuclear programmes and problems, and was kept informed of the progress made in those countries.

30. Recently a study of the feasibility of installing the first nuclear power station in Argentina had yielded positive results. Useful advice had been received from the Agency, but he thought the Secretariat would do well to give more attention to that type of activity in future. No doubt the past decade had seen the establishment of fewer power stations than originally foreseen in the Agency's plans, and as a consequence one of its important functions — that of serving as a centre for the distribution of special fissionable materials — had not grown as the Preparatory Commission had imagined it would. In the decade to come the situation would undoubtedly change radically, and the Agency would have to take the necessary steps to see that its responsibilities in that connection were efficiently discharged; it must be in a position to promote, on a global scale, the increasing use of nuclear power.

31. The Agency had established, in accordance with the terms of its Statute, a system of safeguards designed to prevent the facilities and materials supplied by it from being used for military purposes; and the intention had been that safeguards should also be extended, at the request of the parties concerned, to any bilateral or multilateral arrangement. The Agency had developed its safeguards system by establishing a regulatory code and by training a competent team of inspectors. Argentina had accepted the application of safeguards within its own territory without reservation, and had in fact been the first country in Latin America and one of the first in the world to try the system. In doing so his country firmly believed that it was not only contributing to world peace, but also helping the Agency — helping it, among other things, to increase the assistance which it could provide for the developing areas of the world. Argentina believed that the Agency had fully discharged its responsibility with regard to the planning and establishment of an adequate safeguards system; the next step was up to the Governments of the world. Unanimity of action was important in that connection. His Government did not believe in a safeguards system under which controls would be applied exclusively to developing countries while more advanced countries remained free to do as they wished.

32. A treaty under which Latin America would be declared a denuclearized zone was under discussion, and Argentina had taken an active part in all the meetings of the commission charged with its preparation. The Agency should play a role in the institution to which the treaty might eventually give rise, but should probably refrain from intervening during the preparatory stages as so many political problems were at issue. It would be up to the Governments concerned to decide what part the Agency should play once the treaty was signed. At present two alternative versions of the treaty were being considered, and it would be unwise for the Agency to seem to declare itself either for or against the initiative of any one group of Governments — worse still, to urge the adoption of any measures of a political nature. His Government therefore believed that it would be premature for the Agency to intervene at all until complete agreement had been reached between the parties concerned.

33. One of the most serious problems at present facing the Agency was the low level of its Operational Budget, based in the main on voluntary contributions; in fact, the sums available were diminishing each year rather than increasing. Argentina had invariably paid its full quota in voluntary contributions; failure to pay caused the Agency enormous damage, and he therefore urged all States to make their appropriate voluntary contribution.

34. In conclusion, he wished to emphasize that Argentina believed implicitly in the aims of the Agency and in the ideals which had prompted its establishment] It had complete confidence in the Agency at present, and faith in its future. That implied, of course, an expression of gratitude to all who had been responsible for guiding the Agency's affairs, and in particular to its present Director General.

35. Mr. SOLE (South Africa) said that the Agency's tenth anniversary was an appropriate occasion to pause and reflect on its record since 1957. Its fundamental aim had been expressed in President Eisenhower's "Atoms for Peace" proposal that "the high purpose of the International Atomic Energy is to make atomic energy for peaceful purposes available to all nations", a concept which was embodied in Article II of the Agency's Statute.

36. There was still a long way to go before those ideals would be realized, but for developing countries the record of training and technical assistance provided by the Agency had been commendable. For developed countries, the Agency had played an invaluable role in the co-ordination and development of regulatory standards in the field of safeguards, health and safety and radiation protection, and as an information clearing-house, through conferences, symposia and study groups.

37. It had not so far fulfilled the role originally allotted to it, of acting as a broker in international transfers of nuclear material and equipment and the provision of services. That limitation of the Agency's activities had resulted in a lack of revenue, but had not detracted from the Agency's usefulness.

38. Generally speaking, there was cause for much satisfaction, but no room for complacency, since new and important challenges were emerging, to which reference would undoubtedly be made in the course of the Conference.

39. South Africa had been associated with the Agency since the first eight-Power talks and subsequent pre-Statute discussions in Washington in 1955 and 1956 and had since served on the Preparatory Commission and on the Board of Governors without interruption. It had consistently pleaded for the establishment and maintenance of sound administrative and budgetary practices and the streamlining of Conference and Board proceedings and of the Secretariat. It was on its proposal that the United Nations Advisory Committee on Administrative and Budgetary Questions had been asked to make an annual review of the Agency's budget and programme. It had sponsored the resolution adopted by the General Conference in 1961 urging States to make voluntary contributions to the General Fund in amounts related to their assessed contributions to the Regular Budget 3). It had also played a major role in formulating the Agency's system of long-term planning and biennial programming.

40. His country had also co-sponsored a resolution at the fourth General Conference to provide for more equitable African representation on the Board of Governors 4). The amendment to the Statute, providing for increased African representation, had been based on a South African draft.

41. South African spokesmen had always emphasized the importance of concentrating attention on the technical problems facing the Agency. They had always sought to reconcile political views irrespective of where they had originated and, in doing so, had pursued an entirely independent line.

42. In the field of safeguards, the South African delegation's efforts had been directed to ensuring that the system was politically acceptable to the countries likely to be subject to safeguards and did not stifle atomic energy progress in the developing countries. Its views on the subject were exactly reflected in a statement by Sir Solly Zuckerman to the International Assembly on Nuclear Weapons

3) GC(V)/RES/100.

4) GC(IV)/RES/85

at Scarborough in Ontario, Canada, when he had said:

"In all these developments it is important that safeguards should be framed flexibly, and that they should be reviewed and modified as we learn more about the operation and monitoring of nuclear facilities. Otherwise, the IAEA system would be quickly discredited by a failure to apply practical, economic and minimal, but at the same time effective controls at the key points in the chain of acquisition and usage of nuclear materials. These would include power production and research reactors, chemical separation plants where fissile material originates, and isotope preparation plants in the case of uranium 235, as well as fuel fabrication and handling facilities . . .".

43. Source materials constituted a most interesting omission from Sir Solly Zuckerman's list of key points. South Africa had always reserved its position regarding the application of safeguards to source materials, considering such application unrealistic if one was seeking to establish a balance between the technical effectiveness and political acceptability of the Agency's system. It was not only the safeguards system itself which should be adjusted to political realities, but also its practical implementation.

44. The tortuous system of transfer and execution agreements which had hitherto been concluded or suggested when Agency Safeguards were to be applied at the request of parties to bilateral or multilateral arrangements, or on the conclusion of sales transactions, was not calculated to attract potential clients. That procedure would have to be simplified if it was to cope effectively with future developments in the nuclear industry. Otherwise, the whole concept of safeguards might come to be regarded as an irritating impediment to lawful commerce in nuclear commodities. His country has suggested that the procedure could be simplified by replacing the existing Safeguards Transfer Agreements by a series of bilateral agreements to each of which the only parties would be the Agency and one State in the capacity of Receiving or Purchasing State. Each bilateral agreement would contain a provision whereby it could be invoked by any State which supplied nuclear material or equipment to the Receiving State concerned. Such invocation would automatically attract Agency safeguards to the items supplied and would be effected by the very simple process of notifying the Agency of the details of the transaction.

45. South Africa was in the process of consulting with the Division of Safeguards and Inspection of the Secretariat on the form of such a bilateral agreement. The first draft was already in preparation

and was expected to be ready for discussion by the Board in 1967.

46. There had been continued improvement in South Africa's role as one of the three major suppliers of uranium in the Western world. Its estimated reserves of \$8/lb uranium had risen from 147 000 to 180 000 tons of concentrates, thus placing South Africa second only to Canada in terms of exploitable uranium resources. Recent investigations had revealed that at the current price of gold, South Africa's uranium reserves in the price categories of \$10, \$15 and \$20/lb uranium amounted to approximately 190 000, 225 000 and 265 000 tons respectively.

47. South Africa was acutely conscious of its special responsibility, as a major uranium producer, to do nothing which might conceivably add to the number of Powers possessing nuclear weapons.

48. It considered that little useful purpose would be served by the General Conference debating the political problems inherent in any discussion of the dangers of proliferation, but did consider it right and proper that the Conference should pledge itself to making the Agency's resources available if and when discussions in the United Nations or amongst the atomic Powers reached a stage where it would become practicable to use the services of the Agency as a contribution towards solving the problems involved in the control and policing of nuclear armaments.

49. Sir Solly Zuckerman had also stated that:

"The negotiations for a non-proliferation treaty, for an extension of the test ban, for any measure of disarmament, are long and arduous. So too are the technical efforts to build up an effective and acceptable IAEA scheme of monitoring. But both enterprises are vital, as indeed they are parallel. The smallest step forward in either field means progress. The politician can rest assured that the scientists will not fail him in his part of the work."

50. It was vital for the future of the Agency that the role of the scientist and of the politician in the field of nuclear disarmament and non-proliferation remain parallel until the politicians had solved their problems and the issues involved had ceased to be a source of international controversy. Pressure on the Agency to become involved in political debate should be resisted until it was opportune for the Agency to make its own contribution, which did not mean that the Agency should not continue to develop its safeguards procedures for the role it might one day be expected to play.

51. At the first General Conference in 1957, he had urged that the Agency adopt as its watchwords: "patience, moderation and goodwill". Patience, because it would inevitably be some time before the Agency could realize all the brave hopes which attended its birth; moderation, because the Agency was so susceptible to political exploitation; and goodwill, because, without it, the Agency would never be anything more than an empty husk. He sincerely believed that those watchwords were still applicable and that the Agency would eventually be able to pride itself on having fulfilled the high purpose referred to by President Eisenhower, of making atomic energy for peaceful purposes available to all nations.

52. In conclusion, he paid tribute to the Secretariat, whose calibre was shown by the high ranking which the Agency enjoyed in the family of United Nations organizations.

53. Mr. BILLIG (Poland) said that the Agency was beginning the tenth year of its activity and had proved that it could be an effective instrument for international co-operation. The participation in its work of scientists, administrators and diplomats had made it possible to find a common language in solving complicated questions, a clear example being the problem of safeguards, a decision on which had been unanimously taken at the General Conference in Tokyo. Unfortunately, the last year had passed in an atmosphere of increasing tension. The armed intervention in the internal affairs of Viet-Nam had stirred the conscience of millions of people throughout the world. The victim of the escalation of the war was the peaceful population of the towns and villages. All that caused great, ever-increasing concern in his country, too.

54. In that connection, the importance of strengthening the Agency's role in preventing the spread of atomic weapons was becoming ever more acute. The task was to ensure that nuclear States did not transfer nuclear weapons to other States, and that States hitherto not possessing nuclear weapons did not manufacture them, try to obtain access to them or endeavour to gain a say in deciding upon their use. The nuclear claims of the Federal Republic of Germany were a basic obstacle to concluding an agreement on the non-proliferation of nuclear weapons.

55. Poland adhered to the view that the Agency and its system of safeguards might in certain circumstances be used as a means of ensuring compliance with treaties aimed at the non-proliferation of atomic weapons.

56. Recalling that Poland had put forward such plans for collateral measures in the sphere of atomic disarmament as the Rapacki plan providing for the

establishment of a denuclearized zone in Central Europe and the Gomulka plan for a "freeze" of nuclear armaments in that area, he declared that, in view of the Agency's role and opportunities in that field, Poland would be prepared to place its own atomic installations under Agency safeguards if the Federal Republic of Germany did the same. He believed that a number of other European States would also adopt a similar course.

57. Referring to certain aspects of the Agency's activity, he said that under its auspices the co-operation in reactor physics between Norway, Poland and Yugoslavia — the NPY project — was already in its fourth year. All participants in the project had proposed to the Agency that the project should be extended and the work continued on its former basis. Specific conditions were also being laid down for a new project of co-operation under the Agency's auspices — between Poland, India and the United Arab Republic — devoted to research into solid-state physics, using nuclear methods.

58. An important role was played by the scientific conferences, seminars, symposia and summer schools organized by the Agency. Poland particularly welcomed the international symposium on magneto-hydrodynamic electrical power generation and plasma physics held in July 1966 in Salzburg. Poland was showing great interest in research in that field and was also experimenting in magnetohydrodynamics jointly with France, with which its co-operation in the sphere of peaceful uses of atomic energy had already been successfully developing over a number of years. His delegation would welcome the convening of the next symposium on magnetohydrodynamics and plasma physics in Poland.

59. Noting the significance of the Symposium on Radioisotope Instruments in Industry and Geophysics held in October 1965 in Warsaw, he pointed out that the advantages which Poland obtained in that sphere far outweighed the State's expenditure on all atomic research. Poland was exchanging information in that field and co-operating with a number of other countries. The Polish-Belgian seminar on the use of the labelled-atom method to improve technology in various branches of industry would soon be held in Warsaw. In order to expand research and the use of isotopes, it was planned to set up a special institute in Cracow. Poland was counting on the Agency's assistance in that venture and was willing for its part to grant the Agency facilities for making use of the institute's services.

60. Poland was taking an active part in fulfilling the Agency's research contracts and would support the development of the International Centre for Theoretical Physics at Trieste.

61. He noted with satisfaction the progress in making available technical assistance, but pointed out that there were still difficulties in regard to deliveries of equipment, although frequently such a form of assistance was the most effective. The technical assistance provided by the Agency was still too modest, and new sources and new forms of such assistance should be sought.

62. Poland, jointly with Bulgaria, had completed preparations for making available the assistance which it had agreed to give in fulfilling the socialist countries' programme for providing, within the framework of technical assistance supplied through the Agency, a complete set of equipment for a medical diagnostics laboratory together with the experts and training fellowships needed to launch the laboratory. When the Board of Governors took a decision on that project, the programme of assistance which the socialist countries had in 1963 agreed to give by supplying eight medical laboratories to developing countries would be fully completed.

63. Poland declared its willingness to contribute to the Agency's technical assistance programme the sum of 100 000 zlotys in national currency, which the Agency could use at its discretion, and as before offered the Agency five annual fellowships. In that connection he wished to note that his country continued to attach great importance to the Agency's fellowships for Polish scientific workers. Poland would continue to place its experts at the Agency's disposal.

64. The Agency should devote more attention and effort to solving the problem of nuclear power. Although, in view of the existence of considerable reserves of natural fuel resources, Poland did not plan to construct its first atomic power stations until after 1972, it was already making intensive preparations for the construction of power reactors and was counting on co-operation with the Agency.

65. The Polish delegation considered that the optimum level had already been reached with regard to the Agency's budget and staff for the period of the next few years. Growth in the effectiveness of the Agency's work ought not to be achieved by increasing its personnel, and the increase in its budget should not exceed the limit which many considered to be the maximum — 4-5 % a year. The Agency's funds to cover its operational activities could be increased through economies, the use of internal reserves and the elimination of bureaucracy.

66. He thought that the number of permanent contracts exceeded the minimum referred to in the Statute, and there were also too many officials whose contracts were extended for over five years. He estimated that approximately 60 % of the administrative posts were occupied by people on

permanent contracts. That led to a considerable reduction in the posts in the Secretariat intended, under the Statute, for distribution on the geographical principle.

67. In conclusion, he recalled that 1967 was the hundredth anniversary of the birth of Marie Sklodowska-Curie, whose epoch-making discoveries, made together with Pierre Curie, formed the foundation of the whole development of nuclear science. UNESCO and other international organizations had decided to mark the anniversary by exhibitions, special publications, scientific conferences, papers, radio and television programmes and so forth. He believed that the Agency, too, should take an active part in such ventures, and he would be extremely grateful to the Conference if it made the appropriate recommendations to the Director General and the Board of Governors.

68. On the occasion of the Agency's tenth General Conference, he congratulated the Secretariat and the Director General on their achievements and wished them further success in the future.

69. Mr. SANDOVAL VALLARTA (Mexico) said that the construction of Mexico's Nuclear Centre had begun in July 1964. In its first stage of operation, the Centre would have a Triga Model III reactor and a 12-MeV Van de Graaff tandem accelerator. The first building, which housed the accelerator and its maintenance workshop, had been taken over in January 1966. The building for the attached laboratories was on the point of completion, while the administration building, also containing a library and a lecture room, was being built. Work had been commenced on installing the accelerator and the system of magnets, deflectors and selectors for the particle beam. The main aim of the group performing that work, apart from training personnel, was to study the physical characteristics of nuclei from the experimental point of view.

70. The buildings for the reactor and its auxiliary laboratories were farther from completion than those for the accelerator. The aluminium tank had already been installed for the reactor, which would have a power output of 1 MW(th) in continuous operation and 3000 MW in pulsed operation. The reactor group consisted of 34 members, who were working full-time in the departments of research, services, operation and administration, and were carrying out investigations of statistical mechanics and transport theory, as well as building a Mössbauer spectrometer, a hybrid computer for radioisotope calculations, etc. It was hoped that the reactor would go critical in August 1967.

71. With its 6 1/2 million inhabitants and its vigorous industrial development, Mexico City constituted a considerable market for fresh water and

electric power. At present geological and soil mechanics studies were being carried out in the Texcoco region in order to investigate the possibility of solving the problems of Mexico City by means of a dual-purpose reactor which would generate electricity and desalt the water of the Texcoco basin. On 7 October 1965 the Agency and the Governments of Mexico and the United States of America had signed an agreement to set up a study group to investigate the technical and economic possibilities of a nuclear plant to desalt sea-water with a view to providing fresh water for irrigation in the States of Sonora and Baja California in Mexico and Arizona and California in the United States. That group consisted of North American and Mexican experts. The Agency had appointed Professor Pierre Balligand as Chairman and Dr. Jorge Spitalnik as secretary.

72. The study group had met twice. The arid zone which was to benefit from fresh water had already been decided upon. Since the sources of irrigation water at present available in the region were insufficient for agricultural requirements, the level of the phreatic water on both sides of the border was falling rapidly. The present net loss was estimated as some 10 m³ per second.

73. Any plant using conventional methods could only make up a fraction of that deficit. The region offered unique opportunities for large scale reactors which would produce nuclear power very cheaply. Sites for the installation of a nuclear plant had been studied, and work was being commenced on a study of geological faults and the seismic characteristics of those sites.

74. His delegation felt that it would be appropriate to mention the project for establishing a permanent denuclearized zone in Latin America, to which it attached the greatest importance. The Conference was already aware of the efforts being made by the Latin American countries to attain that objective; the Preparatory Commission for the Denuclearization of Latin America set up at the end of 1964 had attempted to draw up an international instrument based on the agreement of all its members not to produce nuclear weapons or to acquire them under any title. The reasons underlying that noble idea were known to all; basically, it was a collateral measure of complete and general disarmament by which the geographic region in question would be freed from the dangers of possible nuclear war, and which prevented any possibility of involvement in a sterile arms race which would involve, at the very least, an absolute waste of the limited resources available to Latin America for its vital economic and social development. The Latin American countries could not achieve their objective, however, without the wholehearted and resolute co-operation of the

international community as a whole. If it was agreed that the establishment of denuclearized zones, as an essential factor in reducing present or future areas of international tension, would pave the way for general and complete disarmament under international control, the establishment of the necessary control — ensuring, of course, its international character — must also be considered with regard to the denuclearization of Latin America. The Preparatory Commission, which had met at the beginning of 1966 in Mexico City, had approved the "Proposals for drawing up a Treaty on the Denuclearization of Latin America", which set out, apart from the obligations to be assumed by the States party to the treaty, all the necessary measures to ensure that those obligations were fulfilled. The measures included, as an indispensable element for the effective fulfilment of the obligations, provision for participation by the Agency. The Agency's safeguards system, which in accordance with Article III.A.5 of the Statute could be applied "at the request of the parties, to 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", would be applied as part of the control system provided for by the future Latin-American denuclearization treaty in line with the principle enshrined in Article III.B.1 of the Statute, which laid down that the Agency, in carrying out its functions, should "conduct its activities in accordance with the purposes and principles of the United Nations to promote peace and international co-operation, and in conformity with policies of the United Nations furthering the establishment of safeguarded world-wide disarmament and in conformity with any international agreements entered into pursuant to such policies.

75. The Preparatory Commission for the Denuclearization of Latin America would meet again in January 1967, and its members intended, if possible, to reach final agreement on the denuclearization treaty. It must therefore be plain to the Governments represented at the Conference that it was important for the Agency to envisage without further delay the form in which it would have to co-operate with the Latin American Governments in executing the treaty. His delegation accordingly felt that it was not too soon to give the matter serious consideration, so that the Board of Governors at its first meeting in 1967 would have definite conclusions before it; as soon as the treaty on the denuclearization of Latin America came into force, the Agency would then be able to draw up the agreements for co-operation in the application of its safeguards system under that treaty.

76. The Government of Mexico confirmed its intention to contribute to the financing of the International Centre for Theoretical Physics in Trieste in order to ensure that the Centre would continue to

exist in the future. The amount of the contribution had not yet been decided, but it could be fixed as soon as the necessary data were available.

77. The Mexican Nuclear Energy Commission had always benefited from the various forms of technical assistance provided by the Agency, such as the provision of experts in the most diverse subjects and the award of fellowships, as a means of training scientists. That collaboration had produced most satisfactory results, and had materially contributed to the fact that more than 200 qualified scientists were now available.

78. He warmly congratulated the Agency on the tenth session of its General Conference, and was confident that it would make a large contribution to extending the benefits of nuclear energy to the whole world.

79. Mr. TOHAMY (United Arab Republic) made the following statement 5):

(1) "Mr. President, I congratulate you heartily and warmly as we in the Orient greet and welcome our esteemed family members. On behalf of my delegation I wish you all success and I also wish that our Tenth General Conference will be the start of a new, productive and beneficial decade in the history of our Agency. We wish the Agency success in fulfilling its role and in providing the services we hope to get from it, so that it may serve our generation through its contribution to the build-up of a new landmark in our civilization, no doubt the most outstanding one, namely the use and control of the atom solely to promote prosperity and peace.

(2) "The United Arab Republic Atomic Energy Establishment is already in a phase which could be described as an overall development in most of the fields of atomic energy which are of direct or long-term interest in the peaceful utilization of the atom scientifically and economically, and is of special interest in those fields connected with the future prosperity of our nation, in particular the fields of power generation, desalination and advanced and applied science.

(3) "The United Arab Republic Government is aware of the Agency's activities in controlling the packaging and transportation of radio-nuclides. Our authorities, guided by the Agency's recommendations on safe transport, are making every possible effort in order to facilitate the passage of nuclear cargo ships in such a manner as to

ensure safe navigation through the Suez Canal as well as the safety of our territories and property.

(4) "One of our main interests and obligations in relation to our area is to continue assisting the Middle Eastern Regional Radioisotope Centre for the Arab Countries, in co-operation with the Agency, to perform and implement the Centre's programmes in order to serve the Member States participating in the Centre. Being the host State to the Centre, we express our satisfaction and gratitude to the Director General of the Agency for deciding to extend the Agency's participation in the Centre for two more years, ending in 1968. This arrangement is permitted by the Agreement previously concluded with the Agency. However, we hope that the Agency will not refrain from continuing its co-operation with the Centre or even other similar centres in the world. We encourage and invite the Agency to continue to co-operate with the Centre, as it is the intention to widen the scope of its activities to serve the needs of the area, particularly in important research and in the solution of the Member States' problems either on their territory or in that of the host State, thus promoting the role of the Centre as a permanent research centre for Member States.

(5) "The collaborators from the Agency together with us have recognized in the past period the vital activities of the Centre in applied research and training and its major contribution in solving the main problems in Middle Eastern countries, which could easily be spotted in the Centre's Annual Report. The Centre has already trained 120 scientists, all from developing countries, some of whom came from Nigeria and Ghana: 36 in the field of agriculture, 32 in medicine and 52 in industry and general applications of radioisotopes.

(6) "My Government will continue to effect its contribution of 35 000 Egyptian pounds per year to the Centre and will maintain its contribution to the Voluntary Fund of the Agency for 1967 at the same level as its contribution in 1966, i.e. 5000 Egyptian pounds.

(7) "Mr. President, it should be useful for all of us, after a decade has passed in the history of the Agency's performance of its vital duties, not only to praise its achievements or successes but also to review its structure and capabilities, and we should try, all of us, to set the Agency a higher goal and to contribute, all of us, to the replanning of its programmes and duties to enable it to meet the needs of the coming ten years, those needs which we hope and believe it should be able to fulfil. We believe three matters must be considered in order to reach those goals: first, the internal structure of the Agency; secondly, the scope of the

5) This statement is reproduced verbatim at the speakers's request under Rule 92(b) of the Conference's Rules of Procedure.

Agency's activities, crystallized in its future advanced programme for the coming ten years, together with the Agency's relations and competition — if we may say so — with the other specialized agencies which are members of the United Nations family; thirdly, its financial means and resources.

(8) "In reviewing the internal structure of the Agency, we have a few remarks to make and I hope that the Director General of the Agency, Dr. Eklund, will give us his comments on those thoughts. A general review of the distribution of functions in the different Divisions of the Agency, according to its existing Charter, shows that it is important and appropriate to reorganize its structure in order to use the Secretariat's existing personnel to cover all the needs of the Agency now and for a coming period of time without the need of appointing new personnel and, at the same time, to satisfy the actual needs of new Divisions by internal shiftings and the amalgamation of some units performing similar or related services.

(9) "One of the most important new Divisions of the Agency is that concerned with safeguards and inspection. For the sake of the satisfactory and efficient performance of its executive duties under its very special circumstances, involving the staff's appearance and functioning within the territories of Integral States — for its success — the Safeguards Division should receive the utmost care in its build-up, bearing in mind the following three main principles:

- (a) The exact qualifications that its members should possess;
- (b) The defining of its programme as closely as possible according to the correct estimates of its forthcoming duties with special regard to the duration of service of its members in order to acquire experience and the use of that experience, together with the special nature of their duties;
- (c) The very careful choice of its members coming from Member States or areas, with particular regard to ensuring the possibility of using their efforts in areas or countries of different political nature.

(10) "The existing distribution of the Agency's Professional staff recruited from the Member States of the Agency shows for example that the three continents of Africa, Asia and Latin America, which represent the total number of developing countries, are represented only by 16 % of the total number of the Professional posts in the Secretariat, while Western Europe occupies over 40 %. We cannot accept the pretext of the non-availability of qualified professionals from those

continents simply because, in other cases, the scientists from these continents have been most appreciated and accepted. Another example: the number of Professionals recruited from the two continents of Africa and Asia are simply equivalent to the Professionals recruited only from the United Kingdom. This argument has been taken up on several previous occasions, and particularly each time the Director General asked for new nominations to fill vacancies, but we never got a satisfactory and acceptable reply. We want to see that the equitable distribution in the Agency's Secretariat will give all Member States of the Agency their chances to contribute to the efforts of the Agency.

(11) "It might be necessary to reconsider the general structure of the Agency's Secretariat to enable it to fulfil its wider scope of activities in the coming ten years.

(12) "Speaking about the scope of the Agency's activity and programme, we must admit that there has been in the past few years quite an evolution in the Agency's programme which we consider was good enough for the past period. How far have the advanced countries reached in their technology and use of the atom? I should simply say: they have gone as far as the moon and maybe beyond. On the other hand, how far behind are the developing countries and the countries which have not yet the chance to step into the field of atomic energy? In between, the Agency stands with its responsibilities, which are to "allocate its resources in such a manner as to secure efficient utilization and the greatest possible general benefit in all areas of the world, bearing in mind the special needs of the under-developed areas of the world".

(13) "In the past ten years, the Agency succeeded in demonstrating the importance of the peaceful uses of atomic energy to the world. It extended its useful services in the shape of training, pieces of equipment, holding symposia and panels, sometimes publishing valuable information and books, and holding ten General Conferences, and I imagine that the main object of our gathering here at the Conference is to review the Agency's activities and to guide it towards its renewed responsibilities and functions. Gentlemen, I feel particularly at this Tenth General Conference that it is our collective duty to assist the Director General of the Agency, to direct the Agency's capabilities to a programme which suits our ambitions, and to see that the Agency is a highly-efficient technical body in serving us in such a manner as to accomplish a really high-level goal in the coming ten years. We would like to see the Agency capable of assuming the following technical and scientific responsibilities towards the nations and areas which most need those services.

(14) "The Agency should have a vast dynamic programme to support and encourage the fundamental and applied sciences and research and should have its wider programmes to contribute in helping developing countries to acquire the knowledge of new atomic sciences in those nations and thus assist us in developing our science and techniques for the welfare of our people.

(15) "The Agency should have a more progressive and advanced plan to introduce, or channel, on a large scale to the developing countries the new sciences and technologies already in use in the field of atomic energy in the advanced countries, so that the developing countries could use them in developing their existing technologies.

(16) "In the areas where the production of power does not meet consumers' needs the Agency should have a programme to introduce atomic power plant projects to those countries which need to produce such electric power economically in order to develop their knowledge and economy, and thus introduce this new science in the form of a practical project which could be carried out in those areas as the fastest way towards economic and power development. The Agency would be rendering a really vital service to both the producers of power from the atom and to those who need power from the atom. It is the quickest way for those areas to benefit from atomic power stations. The experience gained by trainees of the Agency could never present to those areas such clear-cut or tailor-made projects. Such atomic power stations would at the same time serve as regional, demonstrational and practical training centres for these areas.

(17) "Related to the previous point is the wish to see the Agency more capable of creating new highly-technical levels of scientists, capable of developing their own national programmes towards the practical uses of atomic power in the promotion of their own economy. The regional atomic power stations or reactors with attached regional centres could be ideal for promoting atomic science and technology in those areas as a step towards the implementation of such complete projects in every state. I would like to call this project a "reactor training regional centre compound". In those centres research on agriculture, hydrology, desalination and all the area's problems could be handled collectively. We strongly believe that the development of atomic sciences and uses in individual countries would be greatly served primarily by such continental or regional projects, particularly in the continents of Africa, Asia and Latin America.

(18) "We suggest that such centres be brought into being either voluntarily if a State in the area agreed to divert any of the existing reactors to become a regional centre, or through inviting the

big powers in consultation with any country of a given area to construct such a reactor centre under the auspices of the Agency — and why should the advanced countries not build their experimental power reactors in such areas instead of on their own territory?

(19) "The Agency should develop its programme to assist its Member States in using the advanced countries' technology and experiences, gained in many fields, which mainly affect the production, preservation and increase of foodstuffs, biology, the use of isotopes in plantation, the economic use of existing water resources, pest eradication, the uses of isotopes on a wider scale in diagnostic and therapeutic applications, hydrology, nuclear energy, power surveys and many other vital fields to mankind which I am sure that the Agency's scientists are aware of. Off the record I mention one of those examples which exist in my country, namely the cotton worm which, for over 150 years, has eaten every year cotton crops worth 30-40 million Egyptian pounds. I would welcome suggestions by the Agency or any of the Member States regarding the organization of study and research which might lead to the saving of such a lot of money, which is simply "eaten up" by this kind of worm.

(20) "It might be useful if the Agency could envisage in the future contributing to a desalination institute in an attempt to solve water problems all over the semi-arid and arid areas of the world. A similar idea was taken up by the Director General in his opening speech and we look forward to his efforts in this field.

(21) "These are only the main features of a possible development of the Agency's future programme and services to Member States.

(22) "In conclusion of this point, it is natural to think of the third problem, which is the financing of the Agency's proposed programme. Looking around for such resources, we invite the attention of the Agency to the possibility of acquiring what we need from the United Nations Development Programme. We know that other specialized agencies have financed a great deal of their projects from this programme, and the Secretariat would be in a better position to present to the General Conference such information in order to enlighten us on how far the Agency could rely on this financial source in the coming four or five years within the world plan for development, and the importance of taking such a step. To my knowledge it might be possible for the Agency to get as much as 100 million dollars within five years if it had programmes and projects which could be co-ordinated with the United Nations Advisory Committee on

the Application of Science and Technology to Development.

(23) "However, these are not the only financial resources available to the Agency. We feel the Director General, with his esteemed international personality, can contribute much to the efforts in finding out the possibilities of obtaining new financial resources for the Agency, particularly from the United Nations milieu and the International Bank. He could also encourage, through his good offices, Member States of the Agency to effect the payment of their voluntary contributions and increase them if possible. We are confident that all his efforts in this direction will be appreciated, noted and welcomed by all the Member States.

(24) "Mr. President, the Agency is moving gradually towards exercising its international responsibility with the increasing support of its Member States since they have confirmed their desire to allow it to apply its revised safeguards system, in addition to approving the extension of this system to reprocessing plants, as approved by the Board of Governors in June 1966. My country will continue to help the Agency to become an international, effective instrument to safeguard the world against nuclear hazards. The Agency might become one day the means of ensuring peace in sensitive areas of the world; it might become even more important than the United Nations peace-keeping forces. I invite the attention of my distinguished colleagues at this Conference to the importance of realizing the necessity of using the Agency as a

means of detecting and controlling the growing danger of the production and piling up of fissile materials in our area — the Middle East. The world conscience should not permit the diversion of such materials or allow its uses except for peace. To our knowledge, no plutonium up until now could be used in any quantity for peaceful purposes in a small nation.

(25) "We are obliged to mention that another subject of vital importance to international co-operation is taking the attention of the Board of Governors and its committees. That is the deliberations concerning the conclusion of a form of agreement on international co-operation for emergency assistance in cases of nuclear radiation accidents. Since Resolution GC(VIII)/RES/177 was submitted to the Eighth General Conference, quite a respectable effort has been made by the Board of Governors and its committees, and we are quite satisfied by the resolution adopted by the Board of Governors at its last meeting whereby it has decided to complete the deliberations on this subject as soon as practicable and in any case before the Eleventh General Conference. We are deeply concerned with these international arrangements in cases of nuclear radiation accidents. We feel it is important for all of us, and we feel that it is one of the fields where the Agency would re-confirm its important and vital role in international co-operation.

(26) "Mr. President, those are our views concerning the Agency, which we would like to see prosperous, energetic like an atom and as highly esteemed as we can ever hope to see."

The meeting rose at 1 p.m.