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President: Mr. SARABHAI (India)

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** GC(XIV)/442.

CLOSING DATE OF THE SESSION

1. The PRESIDENT recalled that under Rule 8 of the Rules of Procedure, the General Conference had to fix a closing date for the session, on the recommendation of the General Committee.
2. The General Committee had considered the question and had authorized him to recommend on its behalf that Tuesday, 29 September 1970, be fixed as the closing date, subject to all business having been disposed of by then.
3. *The General Committee's recommendation was accepted.*

GENERAL DEBATE AND REPORT OF THE
BOARD OF GOVERNORS FOR 1969-70
(GC(XIV)/430, 440) (continued)

4. Mr. SIWABESSY (Indonesia) said that he had listened with great interest to the Director General's report on the Agency's achievements and future programme¹⁾.
5. In the past three years there had also been significant achievements in all kinds of fields in Indonesia. Political stability had been achieved for the first time since independence, the scourge of inflation had been eliminated and the confidence of foreign investors had been regained, as evidenced by the numerous companies undertaking mining and manufacturing projects. The first five-year plan had been launched, and very satisfactory results had been obtained during its first year of implementation. Even the modest nuclear programme had shown some useful results, as reported in document GC(XIV)/INF/124/Add.1.
6. The results had brought increased hope for the future; they had been achieved through hard work by the Indonesian people, who were conscious of the need for economic development, and also as a result of cordial relations with friendly countries who understood Indonesia's needs.
7. For several years, the countries comprising the Inter-Governmental Group of Creditors for Indonesia had extended substantial economic aid. Very recently, negotiations had been conducted with the USSR, and agreements had been reached on future economic relations and technical assistance. Nevertheless, some problems remained. Indonesia's infrastructure remained far from satisfactory, and increased financial obligations had been incurred. The problems inherent in the growth of population were a matter of concern, as in other developing countries, and were regarded by the Indonesian Government as being of paramount importance.

1) GC(XIV)/OR.135, paras 25-57.

8. Indonesia was well aware of the benefits atomic energy could bring for the welfare of its people and for economic development. It had endeavoured to utilize nuclear techniques in a modest way to solve some problems related to the economy. As the first five-year plan was based on agriculture, research had been undertaken in such areas as food production increase, which was one of the most important problems facing the country. Some work had also been carried out in radiography and the applications of isotopes and radiation in hydrology and in medicine. The construction of nuclear power plants and desalination plants, although perhaps not an immediate task, was one that was nevertheless being borne in mind for the future.

9. In all those applications of nuclear energy, future developments would depend on the determination of the Indonesian people, their capabilities and the means available to them. In the latter respect Indonesia considered co-operation with other countries, and in particular with neighbouring countries, to be very important. Such co-operation would enable the countries concerned to avoid duplication of effort and thereby to save funds and to make more effective use of locally available resources.

10. Several co-operative projects in non-nuclear fields were being implemented in his region by members of the Association of South-East-Asian Nations. Indonesia looked forward to co-operation with those countries in nuclear energy projects, and hoped that the Agency, with its initiatives for regional co-operation in that region, would succeed in promoting specific co-operative projects in the future.

11. Indonesia had also benefited from co-operation with the advanced nations. Its first reactor had been built with the assistance of the United States of America, and the reactor's capacity was now being increased to 1000 kW, again with assistance from the United States. The amendment to the co-operative agreement between the two countries, providing for an extension of the agreement, had been signed in June 1970. Under a co-operative agreement with France, a programme of uranium exploration had been under way since November 1969. A co-operative agreement with the Soviet Union provided for the construction of a reactor and the Soviet Union had shown willingness to continue assistance.

12. While bilateral assistance could help to reduce the need for technical assistance, the Agency and the United Nations Development Programme (UNDP) would continue to remain the main source of such help, and hence to provide the main stimulus in the promotion of the peaceful applications of atomic energy. Indonesia had noted with great satisfaction that in 1969 disbursements for technical assistance by the Agency had reached the highest

level so far. The Member States which had increased their contributions for that work were to be commended. Nevertheless it was his delegations's belief that the increase remained insufficient in view of the increase in the number of countries requesting assistance and of the very wide scope of atomic energy applications. Additional funds must still be sought. In the past, the practice of the General Conference had been to hold a special session in which Member States announced their pledges for the following year. Perhaps that practice could be resumed. He understood that a special Pledging Conference held by UNDP had succeeded in obtaining greater financial support from its members; the suggestion therefore merited serious consideration.

13. Despite the increase in the funds made available for technical assistance projects in 1969, the total amount was only \$500 000 more than the previous highest figure, attained in 1965, and that increase was smaller in amount than the envisaged increase in expenditure for safeguards in 1971, i.e. \$613 000. That situation was not in the immediate interest of the developing countries. For one thing, the increase for safeguards was more or less assured, since it was part of the Regular Budget, whereas funds for technical assistance came from voluntary contributions. Moreover, undue stress on safeguards activities would convey a misleading impression of the Agency's functions.

14. His delegation did not wish to give the impression that it regarded the Treaty on the Non-Proliferation of Nuclear Weapons (NPT)²⁾ as unimportant. On the contrary, the entry into force of NPT was one of the most important factors for world peace. Nevertheless, Indonesia was apprehensive about the increasing cost of the new burden on the Agency, a burden which would become heavier in the course of time. In the very near future a solution must be found for the financing of the Agency's safeguards activities under NPT. The solution must be equitable in the sense that, while performing the tasks required by NPT, the Agency should continue to carry out the functions for which it had been formed, namely, promotion and acceleration of the peaceful uses of atomic energy.

15. Concern about the Agency's increasing burdens was shared by many developing countries and their opinions must be considered by the Agency. For that reason, greater representation of those countries on the Board of Governors must soon be brought about.

16. It was already two years since the General Conference had adopted a resolution requesting the Board to revise Article VI of the Statute³⁾, and

2) Reproduced in document INFCIRC/140.

3) GC(XII)/RES/241.

no consensus had as yet been reached. The lively debate and diverse opinions expressed on Article VI was evidence of the great importance that Member States attached to the question. The composition of the Board of Governors was of special importance to developing countries, which did not like to be mere spectators in the formulation of the Agency's policy, since not only technical matters but also political issues of the greatest magnitude closely related to world peace and the prosperity of mankind were involved.

17. In that connection mention should be made of NPT and safeguards, respecting which a special committee had been established to permit exhaustive discussion. In that context it had become more than obvious that developing countries should have an equitable participation in formulating the policy of the Agency through adequate representation on the Board of Governors.

18. His Government had therefore supported resolutions GC(XII)/RES/241 and GC(XIII)/RES/261, aimed at enlarging the membership of the Board, with the proviso that there should be equitable geographical representation of the regions.

19. His delegation had moreover supported every idea which would accelerate the implementation of those resolutions. During the debate on the matter there had been very considerable dissension among the Member States. It had even been suggested that some countries would withhold ratification if a certain proposed amendment to Article VI were approved during the present session of the General Conference.

20. In Indonesia a system of musjawarah (deliberations) and mufakat (consensus) was employed in finding solutions to matters of great importance.

21. He saw no advantage in imposing the will of the majority on the minority and considered a consensus to be a more beneficial way of settling problems, as that procedure, although requiring more patience and forbearance, would preserve the smooth functioning of the Agency and dissipate dissension on a crucial issue.

22. His delegation sincerely hoped that during the current session of the General Conference a decision could be reached that would not cripple the operation of the Agency.

23. Mr. AL-KARBOULI (Iraq) said that the Republic of Iraq was grateful to the Agency for its continued assistance and guidance while hopefully expecting more aid.

24. Turning to the most important recent achievements of the Iraqi Atomic Energy Commission, he said that:

(1) A 2-MW Soviet-built swimming-pool-type nuclear reactor had been constructed and put into operation for peaceful uses of nuclear energy in the fields of medicine, agriculture, industry and basic research;

(2) Laboratory facilities had been completed to make the best possible use of the reactor, in particular a radioisotope production laboratory with a capacity of 300 curies per annum;

(3) The scientific departments of the Baghdad Nuclear Research Institute were in the process of being completed. Efforts were being made to provide them with essential scientific material and facilities and to recruit efficient personnel to implement an atomic programme which included the following projects:

(a) A study of radiation effects on insects causing damage to agriculture;

(b) Application of the neutron activation analysis technique to problems concerning the sulphur content of Iraqi crude oil, the composition of tobacco, and the analysis of geological survey samples;

(c) A study designed to achieve a better understanding of the process of mixing raw materials in the cement industry;

(d) Basic research in the field of nuclear and solid-state physics;

(e) Assistance with the completion of medical and radiological projects in Baghdad and with the establishment of a similar centre in Mosul, generously donated by the Soviet Union through the Agency's technical assistance programme;

(f) Providing help for physics services to hospitals, medical colleges, etc.;

(g) Initiating the establishment of an electronic computer centre capable of meeting the needs of the Nuclear Research Institute; and

(h) Research studies designed to improve the preservation of food by radiation.

25. The achievements of the Iraqi Atomic Energy Commission in the regional and international spheres included the following:

(a) Co-operation with Arab States with similar interests to Iraq in the peaceful uses of nuclear energy;

(b) Active participation in the Middle East Regional Radioisotope Centre in Cairo;

(c) Participation in the preliminary committee to establish a centre for nuclear documentation and information services in the Arab world to be affiliated to the Agency;

(d) Active participation in most Arab and international conferences, seminars, etc.

26. The scientific ties between Iraq and the Soviet Union had been strengthened by plans for co-operation in the following spheres:

(a) Technical and scientific plans for joint research projects and reciprocal scientific visits;

(b) Plans for the establishment of a medical radiological centre under the supervision of the University of Mosul.

27. Mr. KRASIN (Byelorussian Soviet Socialist Republic) congratulated the President on his election and expressed confidence that he would discharge the duties of his office with outstanding success.

28. He noted that the work of the Agency was proceeding against a background of striking developments in science and technology, at a time when scientific achievements were having a steadily increasing influence on the welfare of the peoples of the world.

29. His delegation was most interested in the Agency's programme for 1971-76 as a whole⁴), and in particular with that part of it which concerned scientific and technical activities. He considered one of the most important questions in that field to be nuclear power and reactors.

30. His delegation rated very highly the role of the Agency in the successful development of such work. The regular holding of symposia and panels of experts and the issue of reports and manuals would greatly assist all countries in harnessing the best achievements of world science and technology for their own use within a short space of time.

31. He noted further that matters such as the exchange of experience in the operation of nuclear power stations, and the preparation of recommendations on nuclear data had received their due place in the Agency's programme. He was certain that the Agency's activities in relation to the exchange

4) See document GC(XIV)/433.

of experience and technical information would continue to be useful and fruitful in the future.

32. Describing the successful development of science and technology in Byelorussia, he said that preparations had been completed for the reconstruction of the IRT-2000 nuclear reactor with a view to increasing the rated power to 4000-5000 kW.

33. The power of the universal gamma irradiation facility had been increased from 200 000 geq radium to 400 000 geq radium and the range of research that could be performed had thereby been considerably broadened. Radioisotope research in medicine, industry and agriculture had also been considerably expanded. The linear accelerator, betatron and gamma sources were being used extensively for therapeutic purposes. The protective action of a number of physical and chemical factors in connection with neutron irradiation of biological materials was being studied. Investigations of chlorophyll metabolism using radioactive carbon (^{14}C) were being continued. Methods, instruments and equipment were being developed using isotopes, nuclear radiations and activation analysis for the study of processes occurring in soils and plants.

34. In 1970 many countries of the world had observed the one hundredth anniversary of the birth of V.I. Lenin. While on the subject of the current development of large power stations, one could not but do honour to the astonishing foresight shown by V.I. Lenin in regard to the importance of electrification for the cultural development and welfare of the peoples of the world.

35. In the near future, nuclear power stations would play a fundamental part in the Byelorussian SSR in the further development of electric power generation. Scientific research in the next few years should reveal even better ways of developing nuclear power, leading to further reductions in the cost of the electricity produced. Byelorussia's scientists hoped to make their contribution to that technical future, and even now scientific and technical results were available which made it possible to speak of new technical achievements. One important development that came to mind was nuclear power stations using fast reactors with a new type of coolant dissociative gases. A second was the creation of power generation and chemical manufacturing combines which made possible a multiple utilization of nuclear energy for the production of electricity and the simultaneous manufacture of chemical products and modified materials resulting from the interaction of radiation with raw materials.

36. His delegation approved the Agency's programme for 1971-76 as a whole and felt certain that it would do much to further the development

of science and technology throughout the world. He was likewise confident that Byelorussian scientists would have a large part to play in solving the scientific problems which were to be dealt with under the Agency's programme.

37. His delegation had heard with great satisfaction the announcement of the dates for the Fourth International Conference on the Peaceful Uses of Atomic Energy (6-16 September 1971) at Geneva. The programme of that Conference was extremely interesting and his delegation wished the Secretariat all success in the difficult preparatory work.

38. His delegation was certain that the entry into force of NPT, on 5 March 1970, would have a favourable effect on co-operation among signatory nations in the peaceful utilization of nuclear energy. The Agency had been given an extremely responsible task in connection with the Treaty: that of applying controls and safeguards; and his delegation would give it every possible assistance in discharging those duties.

39. One of the most important questions examined at the current session of the General Conference was the proposed amendment of Article VI of the Statute. That was not a simple question. It had to be decided in such a way as not to upset the political equilibrium prevailing at present in the Board of Governors.

40. So far five proposals had been put forward for amendment of the Statute. In the view of his delegation the proposal put forward in the name of the seven socialist countries (GC(XIV)/437, section A.1) represented a serious basis for agreement on a revision of Article VI. It was aimed at ensuring a fair representation for all Members of the Agency without unduly increasing the size of the Board. With their proposal, the socialist countries were not seeking any special privileges for themselves; on the contrary, the proposal was designed to satisfy the legitimate claims of all countries, in particular the developing countries.

41. As a co-sponsor of the socialist proposal, his delegation wished to announce that it was prepared to agree to a compromise and would, in the interests of obtaining a mutually acceptable solution, support the proposal put forward by Pakistan (GC(XIV)/437, section A.2).

42. His delegation had repeatedly expressed the view that the universality of the Agency was a principle that should be respected in relation to all States. An entirely consistent step in that direction would be to accept the German Democratic Republic as a Member of the Agency. He would reaffirm his view that the German Democratic Republic should be allowed to join the Agency.

43. In conclusion he expressed the conviction that the work of the Agency and broad co-operation between nations in the peaceful utilization of nuclear energy would grow steadily, moving from strength to strength; and that the Agency would successfully play its part in co-ordinating all efforts, so that modern science might provide the basis for prosperity and cultural development among all peoples of the world.

44. Mr. YOO (Republic of Korea) said that the Agency deserved praise for its work in establishing NPT; his Government expected to ratify the Treaty in the near future.

45. He wanted, first, to outline current nuclear projects in Korea. The Korea Electric Company had concluded a contract for the construction of a PWR nuclear power plant with a capacity of 564 MW. That project would play an important part not only in industrial development but also in the overall improvement of nuclear science and technology. The power plant consisted of a reactor and steam generating system from the United States of America, a turbine generator made in England, and a reactor containment vessel fabricated in France. The project was a demonstration of international technological co-operation in the peaceful uses of atomic energy. The installation of the nuclear power plant would inevitably involve safety analysis work. Since the Office of Atomic Energy was not yet experienced in that field, Agency assistance was required, and two experts had therefore been requested under the Agency's 1971 technical assistance programme.

46. Work on the installation of a 2-MW TRIGA Mark-III reactor had begun in April 1969 and was almost completed. Criticality was expected to be reached by the end of 1971. The reactor would make it possible to meet the increasing domestic demand for radioisotopes and would provide a high neutron flux for research.

47. His country had planned another important project which deserved mention: as a result of feasibility studies conducted by the Agency, the Government had applied to UNDP for the establishment of a radiation processing pilot plant; the plant would greatly enhance the development of new techniques in the timber and plywood industries, and would also be utilized in the petro-chemical and synthetic resin industries. In the same context, his Government would shortly be acting as host to an international meeting on Radiation Processing Techniques of Special Interest to Developing Countries, to be held under the sponsorship of IAEA.

48. Korea also had a number of nuclear medicine programmes. Under the Office of Atomic Energy, the Radiological Research Institute had continued to apply nuclear diagnosis and therapy in cases of

malignant tumour and cancer. Among other activities, the Institute, in close co-operation with local university hospitals, had started a programme for the early diagnosis and treatment of female cancer.

49. The Radiation Research Institute in Agriculture, also headed by the Office of Atomic Energy, had been concentrating on the improvement of agricultural productivity, especially the introduction of high-yielding seed varieties. New methods of fertilization and insect control were also being introduced. In food-irradiation research, the Institute had concluded an agreement with the United States Atomic Energy Commission to operate a 25 000-curie cobalt-60 irradiator for two years in Korea, mainly for food irradiation research and training in irradiation techniques.

50. Mr. NEUMANN (Czechoslovakia) congratulating the President on his election, expressed confidence that under his guidance the Conference would accomplish productive work which would increase both the importance and the effectiveness of the Agency.

51. 1970 had been a notable year for the Agency, for NPT had entered into force on 5 March. The Czechoslovak Socialist Republic had been one of the first States to sign and ratify the Treaty. Since his Government regarded nuclear disarmament as one of the cornerstones of its foreign policy, it had, on 5 June 1970, indicated its readiness to begin negotiations with the Agency with a view to concluding a safeguards agreement. In its opinion, the Treaty should be implemented as soon as possible so that the Agency's safeguards system could be put into effect. Such a system, based on the Agency's great experience, would be able to ensure effective international control. Of particular significance in that connection was the deliberations of the Safeguards Committee (1970) which had accepted a great responsibility for the future life of the Agency. He was confident that the results of the Committee's work would strengthen unity within the Agency and enable the safeguards system to be applied in good time.

52. His delegation realized that the Agency would be helped considerably in discharging its safeguards responsibilities if the revision of Article VI of the Statute were discussed in a business-like and constructive manner. Its views, together with those of other delegations, had been reproduced in document GC(XIV)/437, but it was still prepared to help find a solution which would strengthen unity within the Agency and improve the organization's effectiveness.

53. In that regard the efforts of his delegation had not yet been successful, but he was sure that no useful purpose would be served if a unilateral,

formal decision were taken on a proposal to which a considerable number of delegations objected in principle. On the contrary, such a decision would complicate matters still further and would have an unfavourable effect on the work of the Agency. He urged a patient approach, believing that more time should be devoted to the review of Article VI.

54. His delegation considered it essential to emphasize once more that the Agency's activities would stand to gain if all States that wished to take part in them — the German Democratic Republic was a case in point — were given the opportunity to do so as regular Members. Such countries had demonstrated by their own work that they were able and willing to contribute to the peaceful utilization of atomic energy.

55. The whole Secretariat was to be congratulated on the way in which it had prepared the Agency's programme for 1971-76 and the budget for 1971. The Czechoslovak delegation considered that the proposals set out in the programme were interesting, but extremely broad in scope, and that they would make such heavy demands on the budget that it would be very difficult to accommodate them financially. That being so, it would be wise to assign priorities to the proposals, with the assistance, in particular, of the Scientific Advisory Committee, panels of experts and other bodies.

56. Within the framework of its own traditional, close co-operation with the Agency, Czechoslovakia considered that certain elements of the programme deserved special emphasis: he had in mind, first and foremost, the integrated long-term safeguards programme, nuclear power, scientific and technical information, nuclear safety and the problem of the effect of nuclear power plants on the environment.

57. With respect to the Agency's 1971 budget, the Czechoslovak delegation again warned that, in its view, it would be necessary to bring about a degree of stabilization. On the other hand, it recognized that the budget must inevitably support certain additional burdens in connection with the safeguards programme. Expenditure on safeguards under NPT should be charged to the Regular Budget, and should be borne by the whole organization as all States would benefit from the Treaty. Of course, the introduction of the safeguards system should not lead to a curtailment of other important programmes; in particular, technical assistance should continue to receive full support.

58. Within the framework of an appropriate technical assistance programme, the Czechoslovak Government proposed in 1971 to supply Czechoslovak equipment to the value of 150 000 Crowns for developing countries; it was also offering five long-term fellowships for studies at Czechoslovak institu-

tions of higher education, and four one-year fellowships for training and work at research establishments and institutes of the Czechoslovak Academy of Sciences. Lastly, the Czechoslovak Socialist Republic was again offering to organize a special course or an IAEA study trip in Czechoslovakia.

59. Mr. ISTINYELI (Turkey) said that he had listened attentively to the statements made by the Director General and the delegates of Member States; one and all had stressed the importance of the role the Agency had hitherto played and the responsibilities devolving upon it with the entry into force of NPT on 5 March 1970. As a signatory, Turkey was following the situation in that area with keen interest. Since it regarded universal application of NPT and an effective safeguards system as two elements essential for the success of the Treaty, it had taken an active part in the deliberations of the Safeguards Committee and intended to carry on doing so.

60. As stated at previous sessions, his delegation attached particular importance to balance among the Agency's various statutory activities; it would wish to see that balance maintained or slanted even more towards technical assistance, for in its opinion the Agency could do more in contributing to progress and development in Member States, and thus help to close the technological gap among the international community.

61. Turkey had therefore welcomed with satisfaction the raising of contributions to the General Fund for 1971. It hoped the Agency would continue to promote on an ever-growing scale the application of nuclear techniques in hydrology, agriculture, medicine and industry, fields in which his country had made substantial progress, in large part thanks to assistance given by the Agency.

62. In view of the fact that conventional resources for electric power production were inadequate and that the demand for electric power was rapidly increasing, Turkey had undertaken feasibility studies with respect to nuclear power stations and hoped to put a 400-MW nuclear station into service in the national grid towards the end of 1976.

63. The financing of nuclear projects was, in Turkey's opinion, a matter of vital importance for countries whose investment resources were limited, and it was equally of interest for countries and organizations having investment funds available: undoubtedly the Agency would be continuing its studies on the matter in greater depth.

64. The Fourth International Conference on the Peaceful Uses of Atomic Energy would constitute an important step towards the application of nuclear science for the benefit of more and more Member States.

65. The conference on the environment, to be held at Prague in 1971 in preparation for the Stockholm conference in 1972, was another important meeting, to which the Agency could contribute substantially through work on radiation pollution of air and water.

66. With regard to the revision of Article VI of the Statute, Turkey had consistently advocated a solution which would ensure an equitable distribution of seats on the Board of Governors while at the same time allowing the Board to work efficiently. It had accordingly joined in sponsoring the proposal for amendment of Article VI submitted by Italy and several other countries.

67. Mr. SALVETTI (Italy) said that the essential task confronting the Agency was to accelerate the exploitation of new sources of energy, thereby furthering the efforts of the industrialized countries to assist the developing countries. It was also necessary to adjust the structure of the Agency to the changed conditions of the world. The problems which the Agency faced were essentially of a political nature. Likewise the action that needed to be taken was also political in its nature.

68. As in the past, Italy had continued to co-operate actively in the Agency's principal programmes. He recalled the fruitful activity of the International Centre for Theoretical Physics at Trieste and mentioned Italian participation in the International Nuclear Information System (INIS) project, an initiative which his Government regarded as one of the most interesting recently undertaken by the Agency, aimed at the development of a sector in which there was need for broad international co-operation. In other fields too — such as agriculture, food, biology and radioactivity — Italy continued to be actively associated with the Agency's research programmes.

69. As to professional training, Italy had made available in 1970 to the Agency a number of fellowships adding up to a total of 160 months of training for the benefit of experts from developing countries. Italy had also participated in panels, conferences and study groups organized by the Agency during the past year.

70. As in previous years electro-nuclear energy in Italy made a considerable contribution to the overall national production of energy. The 18.6 billion kWh produced up to the end of June by the three power stations in operation put Italy in third place among the electro-nuclear power producing countries of the world. ENEL, the Italian national electric energy agency, had decided to build a fourth nuclear power station. The new plant, which was of the boiling-water type with a capacity of 783 MW(e), would be installed near Piacenza

and become operational in 1975. The total cost would amount to nearly \$224 million and Italian industry would supply about 80% of the plant components.

71. He emphasized his country's deep interest in the further development of the Agency as an organization charged with promoting international co-operation in the field of the peaceful uses of nuclear energy. New relevant tasks had already been undertaken by the Agency in connection with the provisions of NPT relating to safeguards. The question of the Agency's responsibilities for the implementation of NPT was a complex one. The thorough debates which had taken place in the Committee of the Whole, set up by the Board to investigate the implications arising from the Agency's safeguards activities under NPT, had produced results which his delegation regarded as satisfactory. He stressed that a great number of Member States had participated in the work of the Committee in a spirit of co-operation. He gave special praise to the preliminary work carried out in that connection by the Secretariat.

72. Together with other Member States of the European Atomic Energy Community (EURATOM) which had signed NPT, Italy would be a party to the verification agreement to be completed between the Agency and EURATOM. He hoped that negotiations would begin shortly.

73. He hoped that the Safeguards Committee (1970) in its forthcoming deliberations would take into account the viewpoints of the parties concerned and reach constructive and realistic conclusions. Special consideration must be devoted by the Committee to the financing of the Agency's safeguards activities under NPT. A great number of suggestions had been put forward and at the present stage the Italian delegation did not wish to offer any solution. It only wanted to draw the Conference's attention to the importance of that difficult matter.

74. Technological and political developments and the new problems facing the Agency had made it increasingly urgent for the organization to adjust its structures to the tasks that it was called upon to undertake. The urgency of that issue had been clearly recognized at the twelfth General Conference. Following an initiative taken by several countries including Italy, a resolution (GC(XII)/RES/241) had been adopted calling for study of the most effective way of adjusting the composition of the Board of Governors. At the thirteenth General Conference, the Board had been called upon, as a matter of urgency, to continue the study of the problem and to submit to the General Conference a draft amendment to Article VI of the Statute (GC(XII)/RES/261). The outcome of the exhaustive talks which had taken place in the last

two years were summarized in the report submitted by the Board to the General Conference (GC(XIV)/437). The report showed clearly that the draft amendment co-sponsored by Argentina and 20 other countries, including his own, was the one that had won the largest support from Member States.

75. In his view that draft amendment complied exactly with the three criteria laid down by the twelfth General Conference whilst at the same time satisfying the fundamental interests of the Agency whose future activities would greatly benefit from a modernization of its executive body.

76. The revision of Article VI was urgent: the countries whose areas were not adequately represented on the Board and also the countries whose political tasks and responsibilities would be much increased by their adherence to NPT had the right to expect such a revision. His delegation considered that a vote should be taken without further delay on the draft amendment so that the Agency, strengthened by that decisive vote, could embark with renewed energy on the tasks ahead.

77. Mr. ONTIVEROS (Bolivia) said that Bolivia's position as a developing country, which was aggravated by the fact that it was land-locked and was a mining country dependent basically on a single commodity, had obliged it to think of the contribution the peaceful uses of nuclear techniques could make to the national development and growth effort. Basic aspects such as health, natural resources, the preparation of an adequate basis or infrastructure for subsequent industrialization, because of their far-reaching political, social and economic significance, had been studied from the point of view of making the best use of the enormous investment of knowledge, financial resources and effort that the present state of nuclear disciplines demanded. With uncertain means, a limited number of adequately qualified personnel and lack of economic support, a modest programme which would bring increasing benefits had been undertaken. The assistance IAEA had given during those first stages through its programme of technical assistance and other services had made it possible to improve those plans and to overcome the first uncertainties.

78. Bolivia's initial efforts in the nuclear sphere had related to nuclear physics research, in particular the study of cosmic rays, through the establishment of a high altitude research centre at Chacaltaya. That work had reached a promising level and would enable important nuclear research to be carried out.

79. In the health sphere, three centres had been constructed which were becoming increasingly important both in the contribution they were making to the study of national problems, such as the reaction of the human body to altitude and endemic

diseases, and in the application of the results in treatment, diagnosis and other aspects of highly specialized medicine.

80. Because of his country's mining tradition, natural resources, including nuclear minerals and, in particular, uranium-bearing ores, merited priority attention, and a large part of the national effort was being devoted to them.

81. A special effort in terms of human and financial resources had been made in that direction, and the national atomic energy programme would depend to a large extent on its results.

82. That important project went beyond the mere field of nuclear minerals, since it was also being used to undertake infrastructural studies.

83. Another aspect being given urgent attention related to the need for improving dietary conditions. The role that the different applications of atomic energy could play might be decisive in the effort the Government was making in that connection. Basic research on soils and fertilizers to bring about the "green revolution" and the development of research on insect pest eradication and control were being followed with great interest.

84. Bolivia was also interested in the development of techniques, in particular in connection with the use of radiation to promote chemical catalysis, which would bring the greatest benefit to its embryonic industry in the near future.

85. The recommendations contained in the IAEA studies on radiological protection and safety were being taken into account in the implementation of the programmes he had mentioned.

86. It had been possible to undertake those projects thanks to the national effort and, to a great extent, thanks to IAEA technical assistance.

87. Bolivia considered that the role IAEA could play in encouraging programmes for uranium prospecting and mining would not only enable national, but also interregional and international energy programmes to be undertaken; his country was in favour of such an activity.

88. It was of paramount importance that studies of small reactors for supplying electrical power in newly developed or developing areas should be pursued.

89. Although those small nuclear electric power stations were not strictly competitive, new advances and indirect benefits were compensating for the first unfavourable impression that such projects might give.

90. Nuclear explosions for peaceful purposes were giving rise to very interesting speculations as to their utilization, and his country was following progress in that respect with interest.

91. The Agency's technical assistance for promoting nuclear techniques in the developing countries was of the greatest importance, and Bolivia was concerned that shortages of funds might restrict or diminish the possibility of giving such assistance.

92. Bolivia would agree with the greatest of pleasure to IAEA urging international financing bodies and countries receiving aid to pay more attention to and to facilitate nuclear development programmes.

93. It would also like the nuclear Powers to collaborate more decisively and more generously in meeting requests for co-operation or for financial assistance from the less advanced countries and countries with small financial resources.

94. The renunciation of sovereign rights in nuclear matters by the developing countries should be considered as placing a moral obligation on the industrialized States to assist the less developed ones.

95. Bolivia persisted in its pacifist attitude and urged other countries to make the maximum effort to re-establish peace in a framework of mutual respect and consideration.

96. Finally, Bolivia reiterated its faith in IAEA. It would give every possible support to the Agency's activities in the cause of peaceful uses of atomic energy.

97. Mr. BRILLANTES (Philippines), while welcoming the increase to \$2.5 million of the target figure for voluntary contributions, was concerned that even that increase would be insufficient to offset in the long term the eroding effect of inflation on the real value of the Agency's technical assistance programme. He had noted with alarm the growing tendency to increase safeguards functions at the expense of promotional and technical assistance activities and stressed the importance of an equitable balance being maintained. He recalled at the same time the other provisions of NPT such as the fullest exchange of equipment, materials and technological information on the peaceful utilization of nuclear energy and hoped that the Agency would pursue those latter aims with the same sense of urgency as the safeguards programme.

98. Turning to the question of safeguards costs, he drew attention to a Brazilian, Chilean, Indian and Philippine proposal submitted to the Safeguards Committee in July 1970, the essentials of which were that the promotional aspects of safeguards should continue to be funded from the Regular

Budget of the Agency and assessed in accordance with the normal practice of the United Nations, that expenses for safeguards applied by the Agency at the request of States parties to bilateral or multi-lateral arrangements should be reimbursed fully to the Agency in accordance with Article XIV.C of the Statute, and that, where safeguards were applied at the request of a State to any of the State's activities in the field of nuclear energy, the expenses incurred on such safeguards work should be fully reimbursed by the State concerned. He drew attention also to some observations by the Philippine delegation on the financing of safeguards contained in document GOV/COM.22/54 dated 6 July 1970, in which a comparison was made of a Member State's assessment ratio in per cent and under a financing system using volume of nuclear installed capacity as the criterion for assessment.

99. Regarding the amendment of Article VI, he believed firmly that a representative Board of Governors was of great importance for the effective functioning of the Agency and hoped that a decision would now be taken on that question by the General Conference.

100. His delegation reiterated its support for regional undertakings, along the lines of the India-Philippines-Agency project on neutron spectrometry. That and other similar projects would lead to a better and more economical use of human and material resources and avoid duplication of effort. He drew attention in that connection to the Agency meeting at Bangkok in July 1970 to discuss the basis of various research and training projects related to nuclear science and technology in Asia and the Pacific and hoped that a formal agreement would soon be finalized.

101. In view of the increasing volume of activity involving the use of radioisotope materials in the Asian region he felt that some serious thought should be given to the establishment of health and safety measures against radiation accidents. In regard to the topical problem of pollution, he felt that the Agency's nuclear techniques should be used in investigating and ultimately reducing the pollution caused by industrial operations, in a universal effort to combat environmental pollution. Further, the Agency should from time to time review its health and safety standards covering every type of activity in which nuclear energy was used for peaceful purposes, in particular its regulations for safe transport of radioactive materials, to ensure that the use of nuclear energy should not further aggravate the already serious problem of environmental contamination.

102. He announced that his Government would continue to meet its assessed and voluntary contribution to the Agency's General Fund for 1971.

103. Mr. HOCHSTRASSER (Switzerland) said that in the past year the Agency had begun to prepare for the central role which it would play in the implementation of NPT. While establishing an effective and simple safeguards system which did not interfere with the rapidly increasing use of nuclear energy, the Agency was also called upon to go on helping countries with the practical applications of nuclear energy. He welcomed the co-operative spirit that prevailed in the Safeguards Committee (1970). His delegation was appreciative of the efforts that were being made by the Agency and the Safeguards Committee to simplify and rationalize the control system so that it would be acceptable to the private sector while remaining efficient.

104. Before his Government could hope to obtain the necessary parliamentary approval for the ratification of NPT, it was necessary to inform parliament and the public in general of how the Agency's safeguards system would function. A fair method of financing the considerable controlling expenditure must be found, reflecting the fact that safeguarding represented a service of interest to all countries, the costs of which needed to be borne equitably.

105. In view of the shift in the proportional allocation of funds to different items of the Agency's Regular Budget, it became even more necessary for Member States to contribute voluntarily to the joint fund which financed important projects of interest to the developing countries. His Government had decided to increase its voluntary contribution in accordance with the higher target set for 1971. Furthermore, his Government had recently approved of Swiss participation in the new International Food Irradiation Project sponsored jointly by the European Nuclear Energy Agency, FAO and IAEA.

106. Although recognizing the need to curtail the Agency's less essential activities, he would urge that its programme of symposia and technical meetings, which were of a high standard and for which the Agency was the most suitable convener, should be maintained.

107. He welcomed the programme for 1971-76 as a useful exercise which would enable the Agency, in close collaboration with other public and private organizations, to make adjustments as necessary in accordance with the rapid development expected in the years to come.

108. The Fourth Conference on the Peaceful Uses of Atomic Energy would provide an occasion for a review of past achievements and future possibilities. His Government looked forward to acting as host to that important conference.

109. Mr. ISARANGKUN (Thailand) said his Government was greatly impressed by the programmes outlined in the Conference documents.

110. Thailand had always supported the Agency's safeguards system and would continue to do so in the future, but he sincerely hoped that the cost of making safeguards effective would not be a burden on countries which were not directly concerned with safeguards application.

111. His delegation had studied the various proposals for the amendment of Article VI of the Statute and felt that the matter needed no further discussion, given a reasonable spirit of compromise.

112. His delegation welcomed the Agency's proposal to increase its target for voluntary contributions the result would be an expansion of technical assistance activity.

113. His Government also endorsed the Agency's attitude to regional activities. His country had had the honour to act as host country for many Agency meetings in the region of South East Asia and would continue to help in that way. It had also offered to serve the Agency's regional co-operative programme and hoped to be able to make an offer of Type II fellowships.

114. Mr. de CARVALHO (Brazil) recalled that in its 13 years in Vienna the Agency had performed a unique role in the development of the peaceful applications of nuclear energy all over the world. In achieving such important tasks the Agency, as a living organism, had to go through certain changes in order to adapt itself to new situations and responsibilities which were invariably linked with development and progress. Member States were now confronted with the need for such a change.

115. Since the Conference of Non-Nuclear-Weapon States in 1968, it had been the conviction of the Brazilian Government that the Board of Governors should be enlarged and its composition changed, to reflect conditions which had not existed at the Agency's inception. Brazil had therefore co-sponsored several versions of the original draft amendment that was now before the General Conference (GC(XIV)/437, section A.5). His delegation believed that that draft amendment, which was co-sponsored by more than 20 countries, fulfilled all the conditions of viability and should be approved by a majority higher than the two thirds required by the Statute. It had been reassuring to note that at one stage or another since its introduction, 13 Latin American countries had either co-sponsored or supported the draft amendment in question.

116. With respect to the prospects of applying nuclear energy for the development of electrical power, the Director General had pointed out in his statement that 95% of the low-cost uranium reserves at present being exploited were in the industrialized countries and that such reserves were only adequate to meet

the requirements of power programmes up to 1985⁵). It was therefore gratifying to know that the United Nations had recommended that more assistance be given to the developing countries in the field of geological surveying and prospection for nuclear materials. That would contribute to the industrialization of natural resources in developing countries and would also change the rather pessimistic prospects of limitation of the steady growth of nuclear power throughout the world.

117. Concurring with the suggestion that developing countries could contribute to the alleviation of that situation, Brazil was making a very considerable uranium prospection effort. The National Nuclear Energy Commission and the newly organized Company for Prospection for Mineral Resources were jointly engaged in searching for new mineral-bearing areas and in checking known occurrences. The work involved about 65 000 metres of drillings, more than had been accomplished during the preceding 18 years.

118. It was with great concern that his delegation had noted that the percentage of the Agency's budget reserved for technical assistance had steadily decreased throughout the years. That trend might be justified by the limitations of the budget, together with the increase in personnel, salaries and safeguards activities, but it was undeniable that it constituted a continuous reduction in the capability of the Agency to achieve its foremost objective. In that connection his delegation wished to bring to the attention of the General Conference the Brazilian Government's increasing concern about the cost of the Agency's safeguards system. Brazil had always supported the application of safeguards, but it must be realized that the development of the peaceful applications of nuclear energy would impose a rapidly increasing burden on the Agency's budget. Moreover, the entry into force of NPT had brought about additional safeguards requirements which, under the sole financial responsibility of the Agency, would unfavourably reflect upon its various other very important activities.

119. The Brazilian delegation to the Safeguards Committee (1970) had been following the matter with the closest attention, and it was his hope that a solution would be found that would be sensible, fair and acceptable to all parties concerned.

120. His delegation had always given its enthusiastic support to the Agency's technical assistance programme, which it rightly regarded as fulfilling one of the Agency's most important functions. Brazil had noted the Director General's statement that the 1971 technical assistance programme would lag behind that of 1962⁶). A target of \$2.7 million

would be required in order to carry out exactly the same programme as the Agency had carried out in 1962. In the light of that situation he wished to announce, on behalf of his Government, that Brazil would increase its voluntary contribution from \$20 250 to \$30 000.

121. With respect to the programme for 1971, his delegation was particularly interested in the hydrology and dosimetry effort, in which the National Nuclear Energy Commission of Brazil had been participating to a certain extent.

122. With reference to the technical assistance programme, Brazil was very grateful for the help which it had received from the Agency, especially assistance in the form of fellowships, scientific visits and technical assistance projects. The staff of the Agency had been very helpful in providing continuing support in connection with Brazil's first atomic power plant, to be installed in the central-southern region of the country.

123. His country had been participating to the greatest extent possible in the scientific and technical meetings organized by the Agency and had been very glad that it had had the opportunity of serving as the host country for one seminar and one regional training course.

124. His delegation, without pressing the matter, wished to bring to the attention of the Director General the convenience that would be afforded by the establishment of a regional office for Latin America, following the example already existing in other regions of the world.

125. He welcomed the efforts made by the Director General and by the staff of the Agency to secure the financing of nuclear power plants by international credit organizations.

126. The INIS project and the very impressive collection of books edited and published by the Agency had undoubtedly been one of the most effective aids to many developing countries. The total effort involved in the Agency's publications programme, covering all fields of nuclear activities, had clearly been enormous.

127. Mr. HOLLIST (Nigeria) said that Nigeria, in spite of being one of the least developed among the developing countries and having no adequate infrastructure for nuclear technology, not only took a keen interest in the work of the Agency, but actively participated in its research support programmes. He was pleased to note in the annual report of the Board of Governors to the General Conference (GC(XIV)/430) that some of the research support programmes of the Agency had been allotted to his country.

5) See document GC(XIV)/OR.135, para.47.

6) See document GC(XIV)/OR.135, para.34.

128. Furthermore, Nigerian specialists had participated in some of the symposia organized by the Agency, and Nigeria had, in co-operation with the Agency, been exploring the possibility of applying nuclear techniques in the control and eradication of agricultural pests.

129. The political situation having returned to normal, Nigeria was now able to concentrate on the urgently needed reconstruction and development of its economy, and was eager to receive the Agency's assistance for its nuclear programme.

130. Referring to the Agency's proposed programme for 1971-76, he said that it was closely associated with the Agency's responsibilities in connection with the entry into force of NPT. Although the Treaty was designed primarily to limit the dangers of nuclear warfare and promote nuclear disarmament, fields which were of no direct concern to it, the Agency would effectively carry out its activities relating to the peaceful uses of nuclear energy only under the conditions of world peace based on individual freedom and national self-determination.

131. Nigeria, by signing and ratifying the Treaty, wished to demonstrate its interest in the maintenance of world peace, and would appeal to the States which had not acceded to or ratified the Treaty to do so, especially in view of the recent disquieting official confirmation that a country which was not noted for its goodwill to African countries and which had neither signed nor ratified NPT, had discovered a cheaper method of producing enriched uranium. Scientific research and innovation were certainly essential and welcome but in the context of NPT the international community as a whole had an obligation to ensure that scientific innovations which could have peaceful and military uses were not diverted to the latter use.

132. His delegation recognized that the entry into force of NPT had placed greater safeguards responsibilities on the Agency and that importance should be attached to the discharge of those responsibilities. But it felt that a large proportion of the scarce resources of the Agency, as envisaged in the budget proposals, should not be devoted to the application of safeguards for three reasons. First, many countries, including developing ones, had joined the Agency before the signing of NPT, because they had realized the economic potentials of nuclear energy and approved the Agency's objectives. In the opinion of those countries, the Agency had well-established responsibilities, which were not connected with those under NPT, and which constituted the *raison d'être* of their joining the Agency. Those should not, therefore, be relegated to the background, however important NPT might be. Second, regardless of whether the States Members of the Agency had any nuclear weapon potential or not, those of them which

had signed the Treaty had voluntarily renounced any aspiration to acquire or produce nuclear weapons in the hope that the nuclear-weapon States would stop all nuclear explosions even though that would not deprive them of their military supremacy. Although the hope for a comprehensive test ban was yet to be fulfilled, the resources of the non-nuclear-weapon developing countries were now to be diverted to the implementation of that section of the Treaty which was designed to disarm the unarmed. Third, the majority of countries like Nigeria, which would have no need for a long time to utilize the Agency's safeguards services, were now being called upon, unjustly, to share the cost of such services to be assessed in accordance with the principle used for its Regular Budget.

133. The nuclear-weapon States had a special responsibility in the matter, since they would retain all they had, whereas the developing countries would have to renounce even the economic and technological knowledge accruing from nuclear weaponry. In all fairness, nuclear-weapon States should, at least, pay a substantial part of the cost of implementing the safeguards responsibilities devolving on the Agency in connection with NPT.

134. His delegation hoped that its views would be taken into consideration by the Safeguards Committee when it discussed the question of financing safeguards.

135. In regard to the question of free flow of the potential benefits from any peaceful applications of nuclear explosives, it was encouraging that a nuclear-weapon State had undertaken some pre-announced nuclear explosions with a view to exploring the possibilities of the peaceful application of such explosions, and that the super-Powers had, in fact, held a meeting in Vienna for a useful exchange of information that had previously not been available internationally on that subject. However, considering that many developing countries had waived the right under NPT to perform experiments themselves, they wished to be assured that, when the application of nuclear explosions became a reality, they would not be compelled to acquire at high cost the benefits arising from them through commercial organizations wishing to make high profits or even from governmental agencies wanting to recover fully, from external sources, the cost of the development of such benefits.

136. His delegation wished to commend the Director General and the Secretariat for their efforts to utilize the Agency's scarce resources judiciously and, in particular, supported the stand taken by the Agency in not endorsing the general salary increases recommended by the International Civil Service Advisory Board. Although the Director General's concern for the developing countries was laudable, he felt that greater endeavour should be made to reduce the gap between the developing and the developed countries.

137. Referring to the need for broadening the Board's membership, he pointed out that since the founding of the Agency many developing countries had gained independence and joined the Agency but the Statute, and in particular its Article VI, did not take account of the present-day realities. His delegation regretted that the Board had not yet been able to reach an agreement on the revision of Article VI and hoped that a decision taking into consideration the views of the developing countries, particularly those in Africa, would soon be reached.

138. In regard to the provision of technical assistance, the Agency's efforts should not be confined to those developing countries which were able to submit the complicated and well-documented proposals normally required in applying for such assistance. The developing countries which were not technically placed to conform to the Agency's requirements should not be completely deprived of the assistance they were entitled to.

139. Recalling that the least developed of the developing countries derived relatively less benefit

from the Agency's normal technical assistance, since such assistance tended to flow where an infrastructure already existed, he warned that unless special measures were taken to close the gap between the nuclear and non-nuclear States, the world would be heading for a disaster. It was the responsibility of the Agency to assist the least developed of the developing countries in establishing the technical infrastructure needed to enable them to compete equally with the more developed ones for its normal facilities.

140. In conclusion, he pointed out that the Agency's apparent tendency to imply that the developing countries should adopt, from the start, the average scale of individual nuclear plants existing in the developed countries was unrealistic and that the estimated high capital cost tended to discourage them from nuclear projects which were otherwise desirable. He hoped that the Agency's programme and budget for the following year would give due consideration to the interests of the least developed among the non-nuclear-weapon States.

The meeting rose at 5.55 p.m.