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President: Mr. MEDINA (Philippines)

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** GC(XVIII)/534.

The composition of delegations attending the session is given in document GC(XVIII)/INF/151/Rev.2.

THE RECORD

GENERAL DEBATE AND REPORT FOR 1973-74 (GC(XVIII)/525, 532) (continued)

1. Mr. ETEMAD (Iran), continuing the general debate, said that Iran's economic growth, with an annual rate of 10% which was forecasted to increase to as much as 25%, was based essentially on industrialization, thus creating a great need for energy and a demand for a rational energy policy. The energy policy laid down by the Shahinshah Aryamehr took account of the problems which arose in Iran just as in the rest of the world. The guiding principles of that policy were the rationalization of energy consumption and the use of energy sources other than fossil fuels, which were also a valuable raw material for industry. For the time being the essential aim was to develop nuclear energy.

2. That was why the Iranian Government had launched a vast programme for the construction between 1980 and 1992 of a large number of nuclear power stations with a total capacity of 23 000 MW(e). In that programme high priority was given to the use of nuclear energy for the desalination of sea water. A support programme was being worked out on education and the intensive training of specialists and technicians, on prospecting and the exploitation of resources used in the nuclear industry, on research and development in nuclear energy, and on the applications of radiations and radionuclides.

3. Implementation of the programme had been entrusted to the Atomic Energy Organization of Iran, which had been specially established for the purpose. That organization was also the official intermediary between the Iranian Government and the Agency. The executive organ for all problems relating to atomic energy was the Atomic Energy Council, under the chairmanship of the Prime Minister. The Council was also called upon to approve regulations relating to nuclear safety and radiological protection.

4. Implementation of the programme was impeded by two problems which were also known in other countries and which Iran hoped to solve with the Agency's assistance: the lack of qualified specialists and manpower and the sudden tension which the energy "crisis" had created on the natural uranium and enriched uranium markets, resulting in reluctance on the part of producers to conclude long-term contracts and in excessive price increases.

5. The Iranian Government had decided to make a special voluntary contribution of $70 000 to the General Fund in 1975, in the hope that the Fund would thereby be assisted in intensifying the Agency's technical assistance programmes.

6. Iran considered that the potentialities of nuclear energy should be exploited exclusively for peaceful purposes. It urged all States which had not yet done so to accede to the Treaty on the Non-Proliferation of Nuclear Weapons(NPT)[1], as Iran had done, and urged all Members of the United Nations to support the proposal for a treaty banning nuclear weapons in the Middle East, an item which his country requested should be placed on the agenda for the forthcoming session of the General Assembly.

7. Another matter to which the Agency should devote close attention was the study of the impact of nuclear energy on the environment and the formulation of comprehensive nuclear safety criteria.

8. In conclusion, he suggested that all non-Member States should be invited to apply for admission to the Agency, which would make the latter more universal and would enable it to carry out its vital task, namely to promote the peaceful utilization of atomic energy.

9. Mr. MOROKHOV (Union of Soviet Socialist Republics) observed that the present session of the General Conference was taking place against a background of the efforts of peace-loving countries to reduce international tension and to establish a system of international relations based on the principles of peaceful co-operation, genuine security, and collaboration stemming from equality.

10. Faithful to the Leninist principles of peace among the nations, the Soviet Union, together with other socialist countries, had taken many important steps to strengthen peace, to normalize the international situation, to reduce the risk of war and to limit armaments. It had taken an active part in the conference on European security, in Strategic Arms Limitation Talks and in the Vienna talks on the reduction of armed forces and armaments in central Europe.

11. When peace and security were at stake, there was no question of resting on one's laurels, and there was still much to do. However, it was to be noted that during the preceding years valuable results had been achieved. Examples were the Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space and Under Water, (the Partial Test Ban Treaty) concluded in Moscow in 1963[2], the Treaty on the Principles governing the Activities of States in the Exploration of Use of Outer Space, including the Moon and other Celestial Bodies (Outer space treaty)[3], NPT, the Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Sea Bed and the Ocean Floor and in the Subsoil thereof[4], and the Convention on the Prohibition and Stockpiling of Bacteriological (Biological)

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[1] Reproduced in document INFCIRC/140.

[2] Reproduced in the United Nations Treaty Series, Vol. 480, Treaty No. 6964.

[3] See United Nations document A/8701, 4th part, Chapter C.

[4] See General Assembly Resolution 2260 (XXV).

and Toxin Weapons and on their Destruction[5]. In Moscow, in May 1972, such important international instruments as the Treaty between the United States of America and the Soviet Union on the Limitation of Anti-Ballistic Missile Systems[6], and the interim agreement relating to the limitation of offensive strategic weapons had been signed. The treaty between the Soviet Union and the United States of America on the prevention of nuclear war was of basic importance.

12. The summit meeting between the leaders of the two countries which had taken place in the summer of 1974 had marked an important stage on the road to reduction of international tension. In that connection, special emphasis should be laid on the agreements which created conditions favourable to the application of atomic energy for constructive purposes. In the first place there was the Treaty between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Underground Nuclear Weapons Tests.[7] That Treaty represented, after the Treaty of Moscow, a new and important step towards the complete banning of all nuclear tests. It should be pointed out that under the provisions of Article III of the Treaty, the parties had undertaken to conclude as soon as possible an agreement on peaceful nuclear explosions. Great importance also attached to the agreement on the limitation of strategic weapons, which had been reached at the summit meeting. Another proof of the efforts which the Soviet Union was making to limit armaments was to be seen in the fact that it had proposed placing on the agenda for the forthcoming session of the General Assembly of the United Nations the question of what action should be taken to eliminate the risks inherent in the application for military purposes of measures affecting the environment.

13. All that constructive action aimed at the limitation and, finally, at the cessation of the arms race was inspired by the foreign policy of the Soviet Union, the general principles of which had been defined at the XXIVth Congress of the Communist Party of the Soviet Union. They were in keeping with the obligations which the USSR had assumed as an atomic power under the provisions of Article VI of NPT.

14. In the joint communiqué of the Soviet Union and the United States relating to the results of the 1974 summit meeting, both parties had again stressed the great importance of NPT and had urged that it should be made effective. The recent trend in international relations rendered the Treaty even more important in the general context of measures to reduce the danger of nuclear war. During a speech at the celebrations marking the 30th anniversary of the Polish People's Republic in July 1974, the General Secretary of the Central Committee of the Communist Party of the Soviet Union, Mr. L.I. Brezhnev, had said that the effective and universal application of NPT had never had such importance as at present.

15. The control that the Agency exercised under NPT was one of the main functions which the Treaty conferred upon it. He wished to emphasize that the problems arising in connection with the application of safeguards and with other functions in connection with NPT deserved special attention in the light of the convening in 1975 of a conference of the parties to NPT for the purpose of proposing measures for its further application. The Soviet delegation therefore deemed it vital to draw the attention of the General Conference to the problems whose mode of solution would have a profound effect on the implementation of the main provisions of NPT, in particular those relating to the exercise of efficient control.

16. Among those problems, a special place had as before to be accorded to increasing the number of accessions to NPT and to the conclusion of safeguards agreements with the Agency by the parties to the Treaty. It was to be noted that in 1974 the Parliament of the Federal Republic of Germany had ratified NPT, and that in the spring of 1973 the Agency and the European Atomic Energy Community (EURATOM) had signed a safeguards agreement within the framework of NPT. That agreement, however, to which States with an advanced nuclear industry were party, had not yet entered into force. The Soviet delegation hoped that the members of EURATOM, and also Japan, would complete the formalities for ratification of NPT as soon as possible and would proceed to put it into effect.

17. The control functions stemming from NPT affected signatories with a developed nuclear industry just as much as those without. It was therefore extremely important that the Agency and various developing countries which had acceded to NPT should expedite the negotiation of safeguards agreements.

18. Among the various measures aimed at strengthening NPT, special significance attached to the work which the parties to NPT and the Agency's Secretariat had accomplished during the preceding 12 months with a view to improving and expanding the Agency's control system. Of importance in that connection were the statements made by the depositary countries, according to which they undertook to inform the Agency of any intention to supply nuclear materials to non-nuclear-weapon States.[8]

19. Emphasis should also be laid on the agreement reached among the main countries exporting nuclear materials and installations regarding implementation of Article III.2 of NPT.[9] There

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[5] See General Assembly Resolution 2826 (XXVI).

[6] See United Nations document A/C1/1026.

[7] Reproduced, with its accompanying protocol, in document INFCIRC/208.

[8] See document INFCIRC/207.

[9] See documents INFCIRC/209 and Addenda 1 and 2.

was no doubt that the Agency would play an important part in that respect. That being so, the Agency's safeguards application procedures called for improvement. The Soviet delegation was gratified at what had been achieved as regards standardizing those procedures, modifying the model subsidiary arrangements and facility attachments, preparing technical directives and drafting codes of practice for their application. At the same time it should be stressed that the Agency's functions in connection with NPT demanded improved data processing techniques, and the establishment of a system for automatic processing of safeguards data was therefore required. It might also be opportune to examine the problems associated with implementation of the "old" safeguards system,[10] in order to identify technical ways and means for improving it and unifying it in the light of the advances made in recent years, so as to render it more efficient and more economical.

20. Problems relating to the use of peaceful nuclear explosions (PNE) occupied a special place among the Agency's activities. During recent years various practical measures had been taken to implement the provisions of Article V of NPT, which dealt with the matter. As early as 1971 the General Assembly of the United Nations had stressed that under the terms of its Statute the Agency was the international organization competent to establish an international PNE service, in conformity with Article V of NPT, and had requested the Agency to pursue its activities in that direction. In application of the provisions of Article V of NPT and in accordance with the General Assembly resolutions, the Agency was now undertaking the preparatory work required for the furnishing of PNE services. In 1971 and 1972 it had laid down the guiding principles for international surveillance of such explosions, and the Board had approved them. In 1974 the Agency had drafted the procedures which it would follow in making PNE services available, and those procedures had likewise been approved by the Board. Finally, a few days previously, the Board had taken important decisions relating to the establishment of a special PNE service within the framework of the Agency. The Agency was thus genuinely preparing itself for the exercise of the functions incumbent upon it under Article V of NPT. The Soviet delegation wished to draw the attention of the General Conference to the urgent need for completing preparation of the administrative and technical documentation, especially in regard to safety standards and criteria, which the Agency needed in providing PNE services and laying down the conditions governing the conduct of explosions.

21. It went without saying that the role of NPT in the Agency's activities was not limited to control operations. The systematic application of the principle of non-proliferation of nuclear weapons opened up ever-widening prospects for international collaboration in the use of atomic energy for peaceful purposes. Under the terms of Article IV of NPT, the parties to the Treaty had undertaken to contribute by all possible means to the further development of the peaceful applications of that form of energy. One could state categorically that the entry into force of NPT marked a new stage in that collaboration.

22. The Soviet delegation noted with satisfaction that the Agency's scientific and technical programme for 1975-80[11] extended to areas of interest to all Members. It provided for the application of effort in various areas, particularly the following: nuclear power engineering, including studies on controlled thermonuclear fusion; environmental protection; improvement in the methods of applying safeguards; studies on problems connected with implementation of the provisions of NPT governing PNE services; improvement in the quality of nuclear documentation at international level; the establishment of a set of standards and rules relating to the safety of nuclear power stations.

23. At the present time the accelerated development of nuclear power was a matter of special interest. With a view to finding a solution to that problem, the Soviet Union was collaborating actively with the Agency and numerous other countries. In 1974, the technical assistance provided by the Soviet Union had led to the commissioning of the first 440-MW unit of the "Bruno Leuschner" "Nord" nuclear power station in the German Democratic Republic; the second unit with the same capacity would go into operation at the end of the year. The first 440-MW unit of the "Kozlodui" power station in the People's Republic of Bulgaria had also been commissioned, and the first unit of the "Loviisa" nuclear power station in Finland had almost been completed. The construction of nuclear power stations equipped with reactors of the same type had been started in Czechoslovakia and Hungary.

24. Greatly expanded construction of nuclear power stations called for the drafting of appropriate safety standards and regulations. It was essential that that work should be performed under the auspices of the Agency and that all interested countries should participate therein. International safety standards should take account of the research carried out in all countries and of the experience which had thereby been accumulated. Questions of power station safety were intimately bound up with the protection of man and his environment against the harmful effects of nuclear radiations, and the Soviet Union was actively participating in the work carried out by the Agency in that field. The Agency had organized symposia and study tours in the Soviet Union devoted to the processing and disposal of radioactive waste.

25. A convincing example of the value of close scientific and technical relations was provided by the Council for Mutual Economic Assistance (CMEA). CMEA, which was the first economic international organization in the socialist countries,

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[10] Set forth in document INFCIRC/66; see also document INFCIRC/66/Rev.2.

[11] GC(XVIII)/526 and Mod.1.

had celebrated its 25th anniversary earlier in the year. Collaboration within CMEA had continued to develop, especially in regard to science, technology and nuclear power generation, and was concerned principally with the solution of problems of co-ordination and with the joint conduct of scientific and technical research. The plan of co-ordination for 1971-75 provided for study of more than 60 important problems connected with nuclear physics, neutron physics, nuclear power generation, radiological protection, nuclear instrumentation and radioisotope equipment. Scientific and technical collaboration was now being paralleled by the development of diversified economic co-operation. The "Interatominstrument" organization, dealing with nuclear instrumentation, was returning satisfactory results, and a new CMEA organization, "Interatomenergo" had started work.

26. Nuclear science and technology in the Soviet Union had made considerable fresh progress in the sphere of basic studies and the introduction of the practical uses of nuclear energy into the national economy. Assimilation of experience with, and operation of, the fast breeder power station at Shevchenko were continuing. The experience gained already illustrated the promise and the favourable safety characteristics of that reactor type. In 1974 the first unit of the Leningrad nuclear power station had gone into service and had already reached a power of 80 MW. In a few days' time the reactor would reach its rated power of 1000 MW. The work of erecting and equipping the second unit would soon be completed.

27. Soviet laboratories were continuing to study controlled thermonuclear fusion. In view of its importance for the entire world, the technical and scientific difficulties that it involved, and the steadily rising cost of new generations of thermonuclear devices, the laboratories concerned in all countries should pool their efforts. In 1974, the agreement signed by the Soviet Union and the United States on collaboration in the field of nuclear energy had made it possible to co-ordinate the topics, the overall trend, and the forms that collaboration should take for the years 1974-75. It would mainly be concerned with quasi-stationary systems of the Tokamak type; experts in the two countries based great hopes on the Tokamak-10 (Soviet Union) and the PLT (United States) devices, which were scheduled for operation in 1975. Collaboration with laboratories engaged in fusion research in the United Kingdom, France, the Federal Republic of Germany, Czechoslovakia and other countries was continuing according to plan.

28. The results of basic research could sometimes be effectively applied in everyday practice. In that connection mention should be made of the work done by the Institute of Theoretical and Experimental Physics and the Joint Institute for Nuclear Research on the use of large proton accelerators for surgery in cases of malignant tumours. It had been found that a proton beam could act as a very exact and efficient surgical instrument. Major achievements in 1974 to the credit of Soviet physicists, working in collaboration with their foreign colleagues at the Joint Institute for Nuclear Research, included the synthesis of a new element - number 106 in the periodic table.

29. True to its policy of aiding the countries of Asia, Africa and Latin America, the Soviet Union had provided, and would continue to provide, economic, scientific and technical assistance to the developing countries on a bilateral basis or through the Agency.

30. Fulfilling the obligations which it had undertaken under NPT, the Soviet Union was making regular contributions, on an increasing scale, to the Agency's technical assistance programme. During the past three years alone the Soviet Union's voluntary contribution to the General Fund had amounted to 1 million roubles. That sum of money had paid for the provision of a large quantity of equipment, instruments and supplies of various kinds to more than 30 countries.

31. Apart from its annual contributions to the General Fund, the Soviet Union offered the Agency fellowships for experts and scientists from the developing countries, enabling many States to train highly qualified staff in the field of nuclear science and engineering. Every year it organized two study tours on subjects of topical interest for the benefit of scientists and experts from States Members of the Agency.

32. It provided, on an ever-increasing scale, uranium enrichment services at its isotope separation plants and in 1974 several long-term contracts had been signed to that end. The Soviet Union reaffirmed its desire to continue providing services on a bilateral basis as well as through the intermediary of the Agency.

33. The Soviet delegation was authorized to state that, in accordance with its policy of technical assistance to developing countries, the Government of the Soviet Union had decided to increase its voluntary contribution to the General Fund for 1975 to 500 000 roubles in national currency. That sum of money would be used for the provision, under the Agency's programme, of equipment, instruments and supplies from the Soviet Union to a variety of countries, first and foremost those that had acceded to NPT.

34. Lastly, the Soviet delegation wished to emphasize once more that the Soviet Union favoured a rapid extension of international co-operation based on the principles of the United Nations Charter, and on the provisions of the Agency's Statute and of NPT. The Agency's work in that field was of great importance and was contributing to the strengthening of international peace and security.

35. Mr. CHOI (Republic of Korea) said that, because of the world energy crisis, the nuclear programme of the Republic of Korea had had to be adjusted so that it would account for 40% of the total power produced in 1986. In addition to the 595-MW plant which was to go into operation at the end of 1976, eight plants with a total installed capacity of 6000 MW were planned.

36. With a view to increasing the country's energy resources, the Korea Atomic Energy Research Institute, which had become an independent body with a broader mandate, had embarked on research relating to geothermal, solar, wind and tidal energy, while the Environmental Research Laboratory affiliated to it was conducting research into ways of solving the ecological problems with which most industrial countries were faced.

37. In an effort to promote industrial applications of radiation and radioisotopes, the Republic of Korea was planning to install a number of 100 000-curie cobalt-60 irradiation facilities and a 300-keV accelerator by January 1976.

38. In the implementation of the projects in question, and especially the nuclear programme, difficulties had arisen with regard to:

(a) The selection of the appropriate unit size and reactor types on the basis of technico-economic studies;

(b) The training of operating, maintenance and engineering staff. His delegation fully supported the Agency's decision concerning the orientation of technical assistance towards that field;

(c) Nuclear safety. The Agency was in a position to formulate an internationally acceptable code containing safety standards for the operation of nuclear reactors;

(d) The assurance of a steady supply of fuel. Since a uranium crisis similar to the oil crisis was possible, the Secretariat should carry out a study of uranium supply and demand and advise Member States on how to save fuel and co-ordinate the production thereof; and

(e) Fuel fabrication and reprocessing. The Agency should initiate regional co-operation in waste management and fuel reprocessing. It might also promote international co-operation in the field of environmental protection.

39. In conclusion, he hoped that the Agency's Members would collaborate more closely in reducing international tension and encouraging international co-operation in the peaceful utilization of nuclear energy.

40. Mr. EL-SHAWI (Iraq) thanked the Agency for the assistance which it had rendered to his country. The Government of Iraq had embarked upon a large-scale programme of development and, realizing the importance of nuclear techniques in that connection, envisaged increased collaboration with the Agency.

41. However, inflation and its financial implications hampered technical assistance activities, and his delegation therefore suggested an expanded use of an arrangement whereby the technical assistance provided by the Agency would be paid for, in part or in its entirety, by the receiving countries.

42. The provision of technical assistance, which was one of the Agency's principal tasks, should be financed mainly from the Regular Budget, a supplementary budget based on voluntary contributions serving to meet programme increases. In that connection, his delegation was pleased to announce that his Government would be making a voluntary contribution of ten times the amount corresponding to its base rate of assessment.

43. His delegation noted with satisfaction that the Director General had, in his report, paid more attention to small and medium-size power reactors, for large reactors did not suit developing countries whose electrical grids were small and which had only limited experience regarding personnel questions and the disposal and management of waste. However, his delegation regretted that small and medium-size power reactors were still not readily available.

44. Lastly, the delegation of Iraq was extremely satisfied at the admission of the Democratic People's Republic of Korea and Mauritius to the Agency.

45. Mr. GOLDSCHMIDT (France) said he had listened with great attention to the statement by the Director General,[12] who had given an excellent account of events in the field of atomic energy during the past year, especially as regards its increased importance, the practical and political problems of its development and the role which the Agency could play. That role was perforce a limited one. The Agency had certainly not become the broker for special fissionable materials which President Eisenhower had proposed in his famous address of 8 December 1953; nor was it about to play the part of broker for enriched uranium, for the sale of that essential material would for a long time to come remain the subject of negotiations between buyer and seller. At the most, the Agency could act as adviser to the purchasing country. Nevertheless, the Agency had an important role to play in a large number of fields, which the Director General had clearly specified: advice to Member States embarking on nuclear development programmes, economic studies, the training of specialists, reactor safety, the protection of persons occupationally exposed to radiation and of the population as a whole, the problem of radioactive waste (its treatment and storage), applications of atomic energy in agriculture, biology and industry, and safeguards.

46. Reverting to events in the field of nuclear energy during the past year, the French delegation wished to comment on three matters: the production and enrichment of natural uranium, small and medium-size reactors, and fast breeders.

47. As regards natural uranium, there had been a real reversal. For about a decade, ample stocks and a relatively low demand had enabled customers

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[12] Summarized in document GC(XVIII)/OR.168, paras 45-79.

to keep prices down, even to a level which had involved financial loss to suppliers or which at all events had not yielded the funds necessary for further prospecting. Thus, prospecting activity had declined throughout the world to a disturbing extent. Contrary to the general trend, however, France had continued prospecting for uranium, both at home and abroad, and had discovered new deposits (for example, in Canada) and launched fresh projects in conjunction with foreign companies (for example, in the Niger). The situation had changed completely with the rise in oil prices and the increase in the importance of nuclear power; the tendency to stockpile natural uranium had resulted in an appreciable rise in the price of uranium. At the same time, through that price rise the producers had acquired the means to resume prospecting throughout the world. Unfortunately, the results of the resumed prospecting efforts would make themselves felt too late to prevent a certain scarcity at the end of the 1970s and would no doubt lead to a surplus in the mid-1980s.

48. With regard to uranium enrichment, France had predicted that existing facilities would be operating at full capacity before the end of the 1970s. That prediction had been made at a time when the world's main producer was claiming that it could meet all demands well into the 1980s and when some of its European partners were convinced that Europe was threatened by overproduction. The French Government had, on 22 November 1973, been the first to guarantee the project prepared by the EURODIF Company, in which partners from several European countries were participating and which had embarked on the construction - near Pierrelatte, in the Tricastin region of France - of a large gaseous diffusion plant for uranium enrichment. The decision taken by the French Government was only a first step, which would have to be followed by many others within the framework of European and world-wide co-operation if the expected increase in demand was to be met.

49. As the Director General had pointed out, the increase in oil prices had considerably lowered the power threshold above which a nuclear power plant was sufficiently large to produce electricity at competitive prices. At Cadarache, work was in progress on the development of a reactor suitable for the propulsion of large merchant vessels, such as oil tankers, for electricity generation in isolated regions without large electrical grids, or for the supply of steam and electricity to industry or the desalting of sea-water in arid zones.

50. Moreover, the past year had seen a prototype fast power reactor operating for the first time - continuously, without incident and at its rated capacity; a considerable amount of further work would, however, have to be done with that 250-MW(e) prototype, France's Phénix breeder, before it could be made available commercially. The reactor type in question represented one of the best ways of approaching independence in the field of energy, thanks to the fuel breeding process and the possibility of using the plutonium in the irradiated fuel elements from thermal reactors. The two industrial groups, one French and one Italian, holding the licence of the French Commissariat à l'énergie atomique (Atomic Energy Commission) for that reactor type, and the nuclear energy committees of both countries would be co-operating in that promising field.

51. The problem of the safety of nuclear facilities, especially power stations, was a major one, and France approved the Agency's expanded programme in that field, it being understood, however, that responsibility for the safety of nuclear facilities would always rest with the countries operating them. The Agency could accordingly draw up codes of practice containing broad safety criteria and certain minimum regulations, but in relation to a specific reactor type it could only refer to the requirements laid down in the country where the technology had been developed and facilitate their adaptation to the conditions in the customer country. For that purpose it should maintain an up-to-date collection of the standards and guidelines published in individual countries.

52. The increasingly industrial nature of nuclear development was hampering more and more the organization - and above all the success - of large-scale conferences like those which the United Nations had held at Geneva. At the moment, the nuclear field seemed to be well covered by the meetings organized by the Agency or other international institutions and by non-governmental bodies such as the Atomic Industrial Forum of the United States and of Japan and the European Nuclear Society, so that there did not appear to be any justification for holding a further Geneva Conference in the near future; certainly none should be held before 1977, and when one was convened its organization should be entrusted to the Agency. Admittedly, it had been the developing countries which had benefited most from previous Geneva conferences, but the Agency had many more effective ways of keeping such countries abreast of developments in the nuclear field: symposia, expert missions, evaluation missions, market surveys and the technical assistance programme proper.

53. In conclusion, he wished to touch on the important question of safeguards, without reverting to the position of the French delegation with regard to safeguards financing. The Statute assigned to the Agency the functions of an association which provided its members with a service whereby it ensured, at their request, that a particular nuclear facility or item of nuclear material submitted to it voluntarily was used only for peaceful purposes. Those functions were undoubtedly important, but one should not go on to conclude that the Agency's success depended essentially on the number of installations subject to its controls. Such a distortion of the meaning of the Agency's functions went together with a tendency to discriminate between Member States, and he regretted that, in one part of the Director General's statement, Members had been categorized according to whether or not they had carried out nuclear explosions, whether or not they had signed NPT, whether or not they had ratified NPT, or whether or not they had concluded with the Agency a safe-

guards agreement in connection with NPT. In the long run such a tendency to discriminate would inevitably be detrimental to the smooth operation of the Agency, which (as was worth stating once again) consisted of only one category of Members - countries which, like France itself, were opposed to the proliferation of nuclear weapons.

54. Mr. CLEMENTEL (Italy) said that the Agency had continued its activities relating to the conclusion of an increasing number of safeguards agreements under Article III of NPT. Italy intended to lend the Agency every assistance in carrying out that mission, having due regard, of course, for the limits of the Agency's Regular Budget which, in the present circumstances, could not be exceeded. Italy, which had already accepted EURATOM safeguards and was now preparing to submit to the double safeguards of the Agency, hoped that that type of undertaking would become generalized and that NPT, from which those undertakings derived for the most part, would obtain the unanimous approval necessary for it to become fully effective. The Review Conference of the Parties to NPT would be held in 1975 and the Italian delegation sincerely hoped that consideration would be given on that occasion to ways by which the Treaty could be adapted even more effectively to the particular international requirements of the moment. That was the necessary condition for obtaining unanimous approval, which was the guarantee for the success of NPT.

55. The Italian Government was very satisfied with the guidelines adopted and the objectives achieved in the Agency's scientific and technical activities, as described in the statement by the Director General. The activities which had been carried out in connection with technical assistance, agriculture, medicine, nuclear technology, and environmental safety and protection were evidence of the special competence and care with which that work had been done.

56. However, it was especially in connection with the preparation of its programme for the years immediately ahead that the Agency had shown once again that it was capable of dealing with unforeseen situations and with new problems which arose. It had devoted considerable effort towards identifying and developing the activities which were becoming matters of absolute priority as a result of changes in the world situation with respect to power supply. World public opinion and Governments had had to take cognizance of the fact that nuclear energy was the most important and, from the technological and economic point of view, perhaps the only valid formula by which a contribution could be made to the energy balance. However, the expected upsurge in nuclear power production raised serious problems especially as regards supply of uranium, availability of enrichment services, siting and safety of nuclear installations, radioactive waste management and environmental protection. Each of those problems had been duly taken into account in the Agency's programme for the period 1975-1978.

57. On the subject of the Agency's activities relating to safeguards, he wished to emphasize the need for maximum intensification of research on techniques which could be used for implementing safeguards in connection with NPT. As was well known, the operators of nuclear installations were subject to particularly heavy obligations and therefore the imposition of additional burdens might discourage the use and development of the new source of energy and thus seriously prejudice the interests of the community as a whole. A suitably limited use of inspectors would be a way of achieving savings which could be used effectively in other essential activities of the Agency. To that end it was essential that the Agency should make maximum use of the regional systems of safeguards, especially when they afforded all necessary guarantees of rigour and credibility as was the case with the EURATOM system, which had been in operation for more than a decade.

58. The activities of the International Centre for Theoretical Physics at Trieste deserved special mention. It was unanimously believed that they had achieved a remarkably high level. Its methods of work, for example the close collaboration between the Centre and numerous research institutes throughout the world and the regular exchange of scientists, had enabled it to achieve the best possible results. For that reason the Italian Government had decided to increase its financial contribution to the Centre from US $250 000 to US $350 000 per annum.

59. He wished to confirm that Italy, and in particular the National Nuclear Energy Committee (CNEN), was very willing to co-operate with the Agency in all activities where the knowledge gained could be advantageously applied. Collaboration of that kind was already in existence; it would suffice to mention the assistance lent by CNEN in the organization, at the Bologna Calculation Centre, of the Study Group on Nuclear Constants of Fission Products, and the Interregional Training Course on Plant Improvement from the Point of View of Resistance to Disease, which was to be held shortly at the Casaccia Nuclear Study Centre under the sponsorship of FAO, the Agency, the Swedish International Development Authority (SIDA) and CNEN.

60. It was in connection with that form of co-operation that CNEN had decided to increase the number of fellowships available to the Agency for training technicians from developing countries. The 160 monthly payments (corresponding to 20 fellowships) would be increased to 200 monthly payments (i.e. 25 fellowships). That increase followed on a decision taken by CNEN in 1973 to increase the number of fellowships themselves.

61. During the past year particularly important decisions had been taken in Italy in relation to the future development of nuclear energy. In particular, the national electricity body had placed orders between the end of 1973 and 1974 for four nuclear power stations, representing a total output of approximately 4000 MW(e), which would come into operation by 1979 or 1980. At present an 800-MW(e) plant, scheduled for commissioning in 1975, was in an advanced state of construction. Accordingly, in 1980 Italy would have eight nuclear

power plants representing a total output of 5500 MW(e). Research activities in connection with nuclear power were also scheduled to be expanded considerably as a result of the approval in July 1974 of CNEN's third five-year plan (1974-1978) by the Interministerial Committee for Economic Programming. That plan provided for appropriations of 500 000 million lire (approximately $770 million). Moreover, the decisions of the Italian Government to participate in the EURODIF Company for the construction of the first plant for the production of enriched uranium by the gas diffusion process, and in the NERSA, for the construction of the first fast-neutron power plant (with a power of 1200 MW(e)), would likewise have profound effects on the overall development of nuclear power in Italy.

62. Mr. FAROLAN (Philippines) thanked the General Conference for the honour which it had conferred on his country by electing Mr. Medina, leader of the Philippine delegation, as President. Congratulating the President on his election, he recalled the latter's untiring efforts to promote nuclear energy not only in the Philippines but also in the world as a whole, as Commissioner of the Philippine Atomic Energy Commission, as Director of the Agency's Division of Technical Assistance, and as Chairman of the Philippine National Science Development Board.

63. In a resolution adopted the preceding year, the General Conference had requested the Director General to make a study of the possibilities and implications of all modes of financing the provision of technical assistance by the Agency, including in particular financing from the Regular Budget,[13] and he wished to make a few comments on the report prepared by the Secretariat in pursuance of that resolution[14]. First of all, since the Agency's establishment, the technical assistance programme had been financed from the voluntary contributions of Member States, and, as there was no compulsion on the latter to increase their contributions, the programme had suffered from a perennial shortage of funds, the situation being further aggravated by world-wide inflation and fluctuations in currency exchange rates. Some delegations had accordingly suggested that the financial stability of the Agency's technical assistance programme should be improved by financing it from the Regular Budget. If that solution were adopted, the Agency would be able to undertake long-term projects under its regular programme and avoid accumulating a backlog of unfulfilled technical assistance requests.

64. It was indicated in the report that eight out of twelve United Nations organizations financed their technical assistance programmes from both assessed and voluntary contributions. That system, in his opinion, would be most appropriate for the Agency's programme, and he therefore suggested that the Conference should study how technical assistance could be financed both from the Regular Budget and from voluntary contributions. With regard to the Agency's programme for 1975-80 and budget for 1975, the Philippine delegation viewed with concern the growing imbalance between the technical assistance programme and the importance accorded to safeguards. The appropriations for safeguards had increased sixfold between 1968 and 1975, whereas the allocations for technical assistance had risen only by a factor of 1.5. The Philippines had always maintained that technical assistance was one of the most important, if not the most urgent, task of the Agency. Some reasonable relationship should therefore exist between the funds allocated for safeguards and those for technical assistance.

65. The Philippines was a party to NPT and attached great importance to its being put into effect - especially Article IV.2, which called for a substantial increase in technical assistance in atomic energy to developing countries party to the Treaty. It might be relevant to recall in that connection that a meeting was to be held at Geneva in May 1975 to review the operation of NPT with a view to ensuring that the objectives defined in the Preamble and the provisions of NPT were being implemented effectively. He wished to stress the direct relationship between the Agency's technical assistance programme and the implementation of Article IV.2 of NPT. A satisfactory review of NPT could not be made if the parties to it, especially the Depositary States, did not endeavour to comply with its provisions. The Philippine delegation had noted with interest that one of the Depositary States intended, as from 1975, in allocating special nuclear material and in granting gifts in kind, to give preference to developing countries which were party to NPT. He expressed the fervent hope that all parties to NPT would see fit to follow that example.

66. The Philippine delegation approved the initiatives taken by the Director General to expand the Agency's programme in nuclear power and reactors and nuclear safety and environmental protection. It realized the need for such expansion in view of the fact that most developing countries seemed resolved to embark on their own nuclear power programmes, but one could not help wondering whether sufficient funds would be available unless adjustments were made in other activities of the Agency. He therefore suggested that the Agency review its programme priorities with a view to phasing out activities which were no longer of prime interest or to transferring them to other United Nations organizations, so as to limit, as far as practicable, the financial burden imposed upon Member States.

67. That the Agency's technical assistance programme should keep pace with the expansion of nuclear power programmes in Member States was natural. For that reason, the Philippine delegation favoured a substantially higher target for voluntary contributions for 1975. His Government, for its part, would be contributing to the General Fund an amount in excess of its normal share and would provide three Type II fellowships instead of two.

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[13] See Resolution GC(XVII)/RES/307.

[14] GC(XVIII)/529 and Corr.1.

68. The Philippines had decided to construct its first nuclear power plant in Luzon. That decision underlined the need for intensified and expanded technical assistance and advice from the Agency, not only in administrative and technical matters but also in matters relating to regulations and the application thereof.

69. With regard to licensing and regulatory activities, he wished to thank the Agency for the assistance it had given his country in the preparation and promulgation of regulations for the licensing of atomic energy facilities and in the preparation of guides and relevant appendices. Referring to the market survey for nuclear power in developing countries conducted by the Agency in 1973[15], he pointed out that the increase in the construction costs of nuclear power plants during the year had been much higher than anticipated and that, if the trend continued, the capital investment required for nuclear power plants would be beyond the reach of the developing countries. He felt, therefore, that the Agency could render further help to those countries, for example by arranging for reasonable financial terms to be granted, or by securing for them nuclear fuel and expert services at various phases of plant construction. The supply of nuclear fuel would undoubtedly be a problem as reliance came to be placed increasingly on nuclear plants for electric power generation. To obviate that difficulty, the Agency should give priority to the requests of developing countries interested in acquiring their own capability for nuclear fuel fabrication.

70. He recalled that the Philippines had consistently supported regional co-operative undertakings as a means of overcoming common problems of Member States belonging to the same region. The Philippines was currently involved in two regional projects, one on neutron scattering and the other on environmental monitoring. It also attached great importance to co-operative work in food and agriculture and was awaiting with optimism the early implementation of the regional co-operative project on radiation preservation of fish and fishery products. The arrangements proposed by the Agency for implementing that project had been found acceptable by the Philippine Government. The Agency should be encouraged further to intensify its efforts in promoting regional co-operation. Furthermore, his Government believed that the Agency could help to lessen environmental pollution through the use of proven nuclear techniques and know-how in research work. His delegation had also taken note of the systematic efforts the Agency was making to develop health and safety standards covering every type of activity in which nuclear energy or techniques were employed. It hoped that the Agency would continue its efforts in that direction and undertake periodic reviews of those standards and guidelines with a view to adapting them to current needs.

71. He recalled that the Philippines was opposed to nuclear tests in the atmosphere. It was deeply concerned about all other forms of nuclear tests, too, including those carried out underground, as they were subject to no appropriate international control and might cause serious environmental, ecological and geological disturbances. He expressed the earnest hope that the Member States concerned would take those objections into account and pay heed to the clear wishes of the peoples affected by those activities.

72. He wished to call upon all Member States party to NPT to observe and fulfil the objectives of that Treaty, especially those relating to the exchange of equipment, materials and scientific and technological information for the further development of the peaceful applications of nuclear energy, with due consideration of the needs of the developing regions.

73. The Philippine delegation hoped that, on the basis of the experience gained by the Agency in the administration of safeguards, it would be regarded as the appropriate international body for prescribing procedures and preparing international agreements which aimed at making available to non-nuclear-weapon States party to NPT the potential benefits of the peaceful uses of nuclear explosives.

74. Mr. KHAN (Pakistan) welcomed the admission of the Democratic People's Republic of Korea and Mauritius to the Agency.

75. He then recalled that on 18 May India had exploded an underground nuclear device. That event, which was of far-reaching consequences for the peace and security of the world, had come as a shock not only to neighbouring States but also to many other peace-loving countries. India had described that test as a peaceful nuclear explosion but from the point of view of technology there was hardly any difference between a nuclear device of that type and a nuclear weapon. Pakistan, which had on many occasions expressed grave apprehensions at India's preparations, regretted that no steps had been taken to dissuade India taking that step.

76. The action represented a very serious blow to international efforts to contain and prevent any further spread of nuclear weapons. The delicate balance of power had been shattered, the barriers had been breached and the way had now been opened for a race for the acquisition of nuclear weapons which could spread to an entirely new group of nations, to the detriment of their economic development and at the risk of nuclear conflict. The underlying principle of NPT had suffered a setback and the Review Conference on the operation of NPT scheduled for May 1975 as well as the plans for expanding the Agency's activities in connection with NPT would inevitably be affected.

77. India's attitude might also hinder the assistance of advanced countries to the developing countries in matters affecting nuclear power just when the latter, in the throes of an energy crisis, would need it most for building the nuclear power plants which they required. The poor countries should bend their efforts in the direction of eco-

[15] For details, see document GC(XVII)/506.

nomic and industrial development and not of mutual destruction. The general welfare of the masses should take precedence over the illusion of power.

78. Having reached a crucial moment in its history, mankind should mobilize all the wisdom, restraint and dispatch at its command, because there was no time to be lost. If India had serious economic reasons for carrying out tests with nuclear devices, it should conduct them under the auspices of the Agency and give an undertaking that it would not manufacture or acquire nuclear weapons.

79. Pakistan was prepared to join India and other States in declaring the entire South Asian subcontinent a nuclear-free zone, in line with the concept embodied in the Treaty for the Prohibition of Nuclear Weapons in Latin America (the Tlatelolco Treaty)[16]. In November 1972 Mr. Bhutto, then President of Pakistan, had made such a proposal and recalled that his country, which believed in using atomic energy for peaceful purposes, had placed its nuclear facilities under the international safeguards of the Agency and would like to see other States in the region do the same. The atom should become a symbol of hope, not of destruction. The Government of Pakistan was now formally submitting the same proposal for the consideration of the General Assembly of the United Nations.

80. Pakistan had signed the Partial Test Ban Treaty and had joined 94 other countries in voting for NPT at the United Nations in 1968. In spite of what had happened across the border, Pakistan would continue pursuing its peaceful activities.

81. The Pakistan delegation felt that the nuclear-weapon States now faced a grave responsibility. If they acquiesced in the fait accompli, there was reason to fear that sooner or later other countries would follow the Indian example. The hesitant attitude of all those States could raise serious doubts about their determination to uphold effective compliance with NPT. As evidence of their sincerity they should lend full support to all efforts to establish nuclear-free zones in sensitive regions of the world and extend firm guarantees against nuclear threats or blackmail from any quarter. The super Powers should also set a good example by moving towards the nuclear disarmament envisaged in Article VI of NPT. They should stop all underground nuclear weapons tests and conduct any peaceful nuclear explosions only under the auspices of the Agency.

82. It was necessary to deal with that question at some length because, if immediate and effective measures were not taken now to arrest the proliferation of weapons of mass destruction, world peace and security would be threatened, the Agency's efforts to promote peaceful applications of nuclear energy would be negated and faith in the system of safeguards would be undermined.

83. The energy crisis now affecting the world and the sharp increase in oil prices had particularly affected the economies of the developing countries with limited fossil fuel resources. The only practical solution for them was to acquire a nuclear energy potential. The Agency would have an important role to play in that connection.

84. Pakistan commended the Director General for having proposed a considerable increase in the activities relating to nuclear power and nuclear safety. In that connection the International Conference on Nuclear Energy proposed for 1977 would come at the right time. The measures for assisting developing countries in problems relating to nuclear power deserved unreserved support. The steps taken by the Secretariat were constructive but much still remained to be done. The advanced countries should join with the developing countries in building and marketing reactors of relatively low power, which the energy crisis was now making potentially competitive and advisable.

85. Pakistan endorsed the steps proposed by the Agency for enlarging its programme of environmental protection, radioactive waste management and nuclear safety, which was of very great importance from the point of view of wider acceptance of nuclear power and its introduction on a large scale.

86. The world food shortage was another problem whose dimensions and gravity had not been fully appreciated. World food reserves had shrunk to merely one month's supplies; famine conditions prevailed and were threatening many parts of the world. A world food conference was to be held shortly. The Agency should be prepared to play its proper role by promoting the application of nuclear techniques for increasing food production and improving food preservation. However, the Agency proposed to devote only 3.4% of its 1975 budget, i.e. $1 million, to the activities of the Joint FAO/IAEA Division of Atomic Energy in Food and Agriculture. That was too small an amount to lead to concrete results. In the light of the world food crisis it would be a matter of urgency to expand that Division's activities and programme.

87. As regards technical assistance, the increase in the target of technical assistance to $4.5 million as voluntary contributions in cash - with the expectation of obtaining a further $1.5 million in kind - was a satisfactory compromise. As the number of requests for Agency help were bound to increase, it was to be hoped that those targets could be revised upwards in the following year.

88. The activities of the International Centre for Theoretical Physics at Trieste, a joint IAEA/UNESCO undertaking, were a source of real gratification, particularly from the point of view of assistance to developing countries. It was a source of satisfaction to note that 73% of its budget had been spent on visits of scientists from developing countries.

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[16] Reproduced in the United Nations Treaty Series, Vol. 634, No. 9068.

89. Pakistan's programme for the peaceful uses of atomic energy was developing rapidly. The Karachi nuclear power plant had already produced more than 1000 million kWh. Plans were now under way for constructing a 600-MW station, which would be followed in the 1980s by several such units. By the end of the century, nuclear power would account for more than two thirds of the total energy produced in Pakistan. Prospecting for uranium in the country had been stepped up in an effort to meet national requirements. Plans were being made to establish some of the basic facilities and auxiliary plants needed to support the nuclear power programme.

90. Pakistan was at present establishing a separate institute for the training of nuclear power plant engineers, operators and technicians. It looked forward to receiving visits by scientists and trainees from abroad. The two atomic energy agricultural centres were busily at work and construction of a third such centre was to begin shortly. The Institute of Radiotherapy and Nuclear Medicine, the fifth such centre in Pakistan, would enter into operation in the following year.

91. Pakistan wished to express its appreciation for the technical assistance and advice which it had received from the Agency.

● The meeting rose at 5.45 p.m.