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President: Mr. ETEMAD (Iran)

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* A provisional version of this document was issued on 13 October 1977.

** GC(XXI)/591.

THE RECORD

ARRANGEMENTS FOR THE CONFERENCE

(b) CLOSING DATE OF THE SESSION AND OPENING DATE OF THE NEXT SESSION (continued)[1]

1. The PRESIDENT recalled that, under Rule 8 of the Rules of Procedure, the Conference had to fix a closing date for the session, on the recommendation of the General Committee.

2. The General Committee had considered the matter and had authorized him to recommend on its behalf that 30 September 1977 be fixed as the closing date.

● 3. The recommendation of the General Committee was accepted.

4. The PRESIDENT informed the Conference that the General Committee had recommended fixing Monday, 18 September 1978, as the opening date of the twenty-second regular session, which, in accordance with Rule 7 of the Rules of Procedure, would be held in Vienna.

● 5. The recommendation of the General Committee was accepted.

ANNOUNCEMENT BY THE PRESIDENT

6. The PRESIDENT said that, before turning to the general debate, he wished to inform the Conference that pledged voluntary contributions to the General Fund for 1978 currently amounted to US \$5 696 088, namely 81% of the target of \$7 million that had been fixed.

GENERAL DEBATE AND ANNUAL REPORT FOR 1976 (GC(XXI)/580) (continued[2])

7. Mr. SIBAJENE (Zambia) congratulated the President of the twenty-first session of the General Conference on his election and assured him of the support of the Zambian delegation.

8. Like most developing countries that were Members of the Agency, Zambia had received technical assistance from the Agency in 1976 and 1977. A large portion of the sums provided had gone into prospecting for radioactive minerals. While Zambia welcomed the fact that notwithstanding its limited resources the Agency had given its assistance in that field, it would like to see the Agency show the same responsiveness to other requests it had submitted with a view to developing the country's capacity to exploit nuclear energy for peaceful purposes. For some time, Zambia's energy requirements would have to be

met from conventional sources, so that in the immediate future the application of nuclear techniques would be mainly in the fields of medicine, agriculture, industry and basic research. Thereafter, however, the country would have to turn to other sources of energy, including nuclear energy. For that reason Zambia would make frequent appeals for Agency assistance and he hoped its appeals would be heard.

9. Since many developing countries had needs similar to those of Zambia, the Agency should devise new ways of meeting such requests for assistance. For that reason Zambia was anxiously awaiting the report of the ad hoc committee that had been set up to study problems of technical assistance, and he hoped that the positive recommendations of that committee would be implemented, taking fully into account the appeals often made by the developing countries in the past.

10. Zambia was concerned about the permanent imbalance between the promotional and the regulatory functions of the Agency. While not discouraging the Agency's efforts in respect of its regulatory functions, Zambia strongly believed that the Member States in which the greatest need existed for regulation could easily bear most of its cost, which would enable the Agency to concentrate its efforts on its promotional activities. Zambia adopted that attitude because the majority of developing countries, if not all, depended on assistance from the Agency and would continue to do so for developing their nuclear programmes.

11. At the twentieth session the Zambian delegation had requested the Agency not to sign any agreement with South Africa concerning that country's acquisition of nuclear facilities and had also informed the Agency of the political situation created by the South African régime in southern Africa. He was not surprised to learn that South Africa had used those facilities for military purposes. Being a neighbour of that country Zambia knew the military intentions of South Africa, which were principally to defend the infamous apartheid policy and to commit acts of aggression against the neighbouring black States. He thanked the USSR for the timely action it had taken in revealing sites in Namibia for testing nuclear weapons.

12. He reminded delegates that Namibia was illegally held by South Africa in order to oppress and exploit the black majority. He reiterated what had been said by his delegation both in the Board and the General Conference and in other international forums, namely that the presence of racist South Africa in the Agency and its acquisition of nuclear technology had been and continued to be an inimical act and a danger to peace not only in southern Africa but in the world at large. Those who had given assistance to the racist régime to enable it to acquire nuclear weapons, those who had shut their eyes to the diabolic nature and activities of that régime, those who overtly or covertly had defended white supremacy, those who had strengthened the economic muscle of that régime, could not escape blame now or in the future for the consequences being witnessed in

[1] GC(XXI)/OR. 195, para. 3.

[2] GC(XXI)/OR. 196.

that part of the world. Against whom were South Africa's nuclear weapons intended to be used? Against the black peoples of Africa. Proponents of apartheid would stop at nothing to maintain their ill-conceived supremacy.

13. To put an end to that dangerous and vile system, his delegation proposed that the Board of Governors should, at its next session, look at the provisions of the Agency's Statute and amend them so as to ensure the expulsion of the racist régime of South Africa from the Agency, with all the attendant consequences. He thanked all those Members of the Board who, in June, had voted to remove South Africa from the Board of Governors and appealed to countries which had sided with South Africa to search their consciences and align themselves with the majority.

14. The fears and suspicions of his country regarding the proliferation of nuclear weapons had continued to increase and to be confirmed since 1968. The latest developments in racist South Africa demonstrated what a mockery was being made of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT)[3]: indeed, one could not but note that South Africa had actually been helped by countries that had signed NPT. Zambia would support all efforts aimed at the total destruction of nuclear weapons.

15. His delegation had taken note of the Secretariat's reply to the questions it had raised at the fourth meeting of the Committee of the Whole with regard to the possible use for military purposes by South Africa of nuclear facilities covered by the Agency's safeguards. Since then, his delegation had studied the reply which, in its opinion, cast no light on a disturbing situation.

16. The Zambian Government noted with satisfaction that during the twenty years of the Agency's existence its membership had grown from 54 to 110. It was against that background that his delegation supported the resolution aimed at increasing the number of Members of the Board of Governors. Being convinced that the proposed increase would in no way compromise the effectiveness of the Board, his delegation had concluded that there was a need to increase the membership of the Board in order to ensure equitable representation of the regions of Africa and of the Middle East and South Asia.

17. The Secretariat should not feel discouraged if more criticism than applause was levelled at it; it should continue to fulfil its functions with increased determination and punctiliousness. His delegation wished to thank the Director General and his staff, and also to thank Austria for the part it had played in the organization of the present session and, generally speaking, for its hospitality.

18. Mr. PIETINEN (Finland) said that, twenty years after the Agency had been founded, its

objectives as defined in the Statute were more pertinent than ever. There was an increasing trend to strengthen the contribution of the peaceful uses of atomic energy to world peace, health and prosperity, and the public had also realized that those uses should serve no military purpose. The Finnish Government recognized the complexity of most of the questions relating to nuclear energy, especially the proliferation of nuclear explosives, and it commended the Agency for the work it had performed to attain its objectives. By its very nature and by virtue of its Statute, the Agency was the principal international body concerned with non-proliferation, and its past performance could only serve to strengthen that role.

19. World peace and international security were the common objectives of all present. Confrontation was no longer a rational solution to international problems. The Finnish Government was convinced that détente was the only realistic basis for international relations. There was a definite interaction between disarmament and détente, and the Finnish delegation believed that in the long run détente could only subsist if the arms race were curbed.

20. The year 1977 had with reason been called the year of negotiations. Practically all crucial questions, not only disarmament, had been discussed during the year in various international assemblies, and it had been recognized that consensus could result only from dialogue. A strategic arms limitation treaty and a complete ban on nuclear tests would help to prevent the spread of nuclear arms. Other negotiations on disarmament would certainly facilitate the process of détente.

21. In regard to the crucial problem of non-proliferation, the past year had been marked by important events. Two more States, Panama and Switzerland, had ratified NPT, thus bringing the total membership to 102. Several new safeguards agreements had also been approved by the Agency.

22. In agreements relating to the transfer of nuclear materials and technology, more and more attention was being paid to non-proliferation, although the main nuclear exporters had not yet come to an agreement on that issue, which was regarded by many as essential to the success of non-proliferation efforts.

23. The Finnish Government regretted that a number of important States carrying out intensive nuclear programmes were still not parties to NPT. The Finnish Government had on many occasions stressed the non-proliferation question and asked that measures be taken to strengthen the non-proliferation régime and to give full effect to NPT. Finland's aim was to help in creating conditions in which no State at present outside NPT could reasonably argue that remaining outside the Treaty was compatible with its national interests.

24. In June 1976, the Finnish Government had submitted to the Agency's Board of Governors a memorandum entitled "Strengthening of the

[3] Reproduced in document INF/CIRC/140.

Agency's Safeguards on a Comprehensive Basis¹¹. In that memorandum, the Finnish Government had expressed its conviction that the Agency's safeguards system should be consolidated in a constructive manner. That conviction had been shared, moreover, by the Agency's Member States.

25. At the thirty-first session of the General Assembly of the United Nations, Finland had submitted a draft resolution relating to the strengthening of IAEA safeguards which had been adopted by a very large majority. The adoption of that resolution was a reaffirmation of the goals of NPT by the international community and an expression of the urgency of strengthening the non-proliferation regime. The resolution called upon the Agency to report on the progress of its work on that question to the thirty-second session of the General Assembly of the United Nations.

26. The Finnish Government was glad that the study of safeguards control methods and related measures was continuing and making progress. The Agency had concluded agreements with certain States that were not party to NPT. The Agency's work had provided a useful instrument for those countries that wished to commit themselves to the principle of non-proliferation. Finland was fully aware that certain elements of NPT had not met with the desired success; several non-nuclear-weapon States had been disappointed at the results achieved so far. Nevertheless, Finland believed that NPT was the best instrument available, if properly used, to arrest the inherent dangers of nuclear proliferation and it hoped that a balance between the elements of NPT could be attained before the Second Review Conference in 1980.

27. Finland welcomed the Agency's recently published study on the establishment of regional fuel cycle centres and the efforts it had made to solve the problems of plutonium management. Regional and multinational agreements on fuel cycle management could be economically advantageous to the participating States and could also diminish risks. Stockpiling of plutonium and fuel from conventional reactors presented the greatest risk of proliferation in the near future and adequate measures should be taken in the framework of the Agency's safeguards system to improve safeguards for those two sensitive points in the fuel cycle.

28. Another important problem was the physical protection of nuclear materials. Finland believed that a particularly urgent task was to prepare an international convention in which the minimum standards for physical protection were clearly defined; the draft convention presented by the Agency's Secretariat constituted a good basis for work on a final text.

29. The Agency's programme on establishing safety codes and guides for nuclear power plants had made good progress and the Finnish Government looked forward to the first published version of that work. It also approved of the decision to publish a series of guides on the disposal of radioactive wastes.

30. In the face of the rapid increase in the exploitation of nuclear energy and the adoption of new nuclear techniques, efforts would have to be made to enable the Agency to develop appropriate safeguards systems. The system of sanctions for international safeguards should also be improved.

31. During recent years, there had been a rapid growth of bilateral and multilateral agreements between suppliers and recipients of nuclear materials and technology. The provisions of those agreements went beyond the stipulations of NPT. Although those agreements were essential in stopping nuclear proliferation, they needed to be streamlined. Indeed, several States considered that the existing system was too cumbersome and bureaucratic, and that it adversely affected their mutual transactions.

32. There was a pressing need to increase the Agency's activities in another sector, namely technical assistance to developing countries within the framework of a comprehensive safeguards system. That would obviously necessitate an increase in the financial resources available to the Agency. It was unfair, however, to say that co-operation as envisaged by Article IV of NPT had failed to materialize to any substantial extent.

33. It was clear that the peaceful utilization of nuclear energy was shrouded in uncertainty. The problem of non-proliferation was exacerbated by constant technological development and by harsh commercial competition. The environmental risks of nuclear energy were giving rise to public debate. For all those reasons, Finland welcomed the proposal of the Government of the United States of America for an international programme on evaluation of the nuclear fuel cycle. That programme aimed at ensuring the use of nuclear energy for peaceful purposes without proliferation risks. Finland intended to participate in that programme, which it believed should be conducted in close co-operation with the Agency in the hope that it could benefit from the participation of all major nuclear energy countries.

34. The international arrangements necessary to establish an international service for nuclear explosions for peaceful purposes had been the subject of intense study by the Agency. Although, to some extent, opinions varied as to the economic benefits of such explosions, the question had been treated in a constructive spirit and a consensus had been reached on the report of the ad hoc advisory group set up by the Board of Governors to discuss the factors involved in the establishment and operation of an international PNE service. The establishment of an international PNE service, with all its technological, economic and proliferation aspects, should continue to be studied in the framework of NPT.

35. With regard to the budget for 1978[4], the Finnish Government supported the principle that

[4] GC(XXI)/582.

serious efforts should be made to curb the rise of administrative costs and keep them at a moderate level. Finland had already informed the Director General that it would pay its share of voluntary contributions to enable the Agency to reach its target of \$7 million. Its Government was also taking steps to pay the additional voluntary contribution recommended by the Board. The Agency should have a stronger role in the common efforts to establish a new international economic order.

36. Mr. INHAN (Turkey) observed that in the present phase of development many countries were attaching great importance to the peaceful uses of atomic energy, especially for the production of nuclear power. The Turkish delegation shared the Director General's opinion that it was necessary to provide the developing countries with access to nuclear power technology at a reasonable price. The interests of those countries should be considered when taking decisions concerning the structure and direction of an international nuclear energy policy. Turkey was happy to note that the high-level consultants' report implied that the Agency must remain constantly attuned to the changing requirements of developing countries.

37. It was a fact that many developing countries had embarked on intensive nuclear power programmes. That was also true of Turkey, whose first nuclear power plant, with a capacity of 600 MW(e), was to become operational in 1985. The site had been chosen and the licence granted by the Turkish Atomic Energy Commission. The preliminary projects had been completed, and construction on the main units was to start in 1979.

38. Turkey continued to believe that the Agency was the most significant instrument for international co-operation in the field of nuclear energy. The controversy engendered by the conflict between the growing needs for peaceful applications of nuclear energy on the one hand and increasing concern about proliferation, with resultant restrictions on the transfer of what was termed sensitive nuclear technology, on the other, meant that the Agency would inevitably become increasingly involved in international nuclear affairs. In those circumstances the Agency's technical assistance programme would play a valuable role in the introduction of nuclear technology in developing Member States.

39. He wished to take the opportunity to thank the Agency, on behalf of Turkey, for the fellowships awarded and for the various training courses held. Such assistance contributed much to the implementation of the different phases of the Turkish nuclear programme, designed to meet the country's rapidly increasing energy demand.

40. He wished to associate himself with the comments made by some other delegates about further improvement of the Agency's technical assistance programme. The target set for voluntary contributions was \$7 million, a figure which appeared to be insufficient to meet the requirements for assistance to the ever-growing

number of countries launching nuclear programmes. The target should therefore be substantially raised. It was also desirable that the Agency's technical assistance should continue to be provided from the General Fund and distributed on a non-discriminatory basis among its Members, as provided in the Statute. In that connection, the Turkish Government had decided to raise its voluntary contribution to the General Fund.

41. As for the implementation of the technical assistance programme, he considered that experts should be sent to the recipient countries during execution of the various phases of their nuclear programmes. It was also important to concentrate the technical assistance on areas related to a major development programme. That purpose could be achieved by increasing the number of experts in the Division of Technical Assistance and by providing more equipment.

42. The Agency's safeguards functions would expand in proportion to the growth of commercial transactions in the nuclear industry. It seemed important therefore to improve national accounting and control methods within the framework of the Agency's safeguards system.

43. In conclusion, he drew the attention of the Conference to the importance which his Government attached to the distribution of Professional posts in the Agency in conformity with the provisions of the Statute, and hoped that the Agency would maintain a fair balance in the distribution of those posts as well as in staff promotions. The Turkish Government was convinced that the Agency would brilliantly fulfil its role of contributing to world peace by satisfying the needs of the developing world.

44. Mr. KIBRIA (Bangladesh), after congratulating the President of the Conference, the members of the General Committee and the Director General on behalf of his delegation and expressing his good wishes for the success of the Conference, outlined his country's atomic energy programme.

45. During the past year, the Bangladesh Atomic Energy Commission (BAEC) had continued its activities in the peaceful uses of atomic energy. Priority had been given to long-term activities and the highlight of the year had been the discovery of uranium and the start of work on an atomic energy research establishment at Savar, not far from Dacca.

46. With regard to nuclear power generation, BAEC had prepared a plan for a 125-MW(e) nuclear power station with provision for a second unit of the same capacity. The feasibility study for the project had been entrusted to a French firm.

47. BAEC geologists, with help from the Agency, had carried out an extensive survey which had confirmed the presence of uranium deposits in certain areas of Bangladesh. A plan for the exploration and assessment of uranium and thorium deposits had been drawn up.

48. The systematic investigation of heavy-mineral beach sands along the coast and on the off-shore islands was continuing and a pilot plant had been established at Cox's Bazar. An Australian firm had submitted a preliminary report to the Government on the feasibility of commercial exploitation.

49. BAEC was providing industrial radiography services to various industrial units in the country using non-destructive radioisotope techniques. Furthermore, it was beginning to use nuclear techniques to study underground water resources.

50. The Dacca Atomic Energy Centre was successfully carrying out multidisciplinary basic and applied research. In the field of experimental physics, research work was mainly on nuclear and solid-state physics, and the proton-induced X-ray emission technique had now been fully developed for applied work. In theoretical physics, research was being carried out on low energy nuclear physics and solid-state physics; extensive work had been done on nuclear structure and nuclear reaction problems. Work on technical physics dealt with the operation and maintenance of the 3-MeV Van de Graaff accelerator. Manufacture of essential electromechanical instruments was in progress and ferrite was starting to be used for the first time. Chemical techniques were applied in the investigation of beach sand minerals, the processing of uranium and trace element analysis by X-ray fluorescence spectroscopy.

51. Physics had been put at the service of health and research in various ways, notably in environmental radioactivity monitoring and sterilization of medical products by irradiation.

52. An Institute of Nuclear Agriculture had been set up and was to be inaugurated in December 1977. Its work was mainly concerned with the breeding of new varieties of crop plants characterized by high yield and early maturity with fibre having greater resistance to disease and pests, etc. Particularly interesting varieties of rice and jute had been obtained.

53. Furthermore, encouraging results had been obtained in the preservation of vegetables and foodstuffs. A 50 000 Ci cobalt-60 gamma irradiator had been ordered and the Irradiation and Pest Control Institute was collaborating with the national health authorities on regulations to be applied to irradiated food. Lastly, three nuclear medical centres were continuing their research activities on the application of nuclear techniques in the diagnosis and treatment of disease; a fourth medical centre was under construction.

54. Bangladesh, like many other countries, was aware of the imminence of a world energy shortage and was seeking new sources of energy. It thought that the Agency could play a vital role in that respect. With a still small electric grid system, Bangladesh was planning to integrate small and medium-sized reactors into it but was

hampered by the high cost of such facilities and the difficulty of obtaining financing assistance on reasonable terms. The Agency should not only encourage the manufacturers of that type of reactor to respond to the needs of the developing countries, but should also encourage the financing agencies to offer special terms for their purchase.

55. The Government of Bangladesh welcomed the extension of the Regional Co-operative Agreement for Research, Development and Training Related to Nuclear Science and Technology (RCA)[5] between the Agency and Member States in Asia for another five years. BAEC was participating in the programme of industrial application of radioisotopes launched within the framework of that agreement and hoped to benefit a great deal from it. Bangladesh hoped to take part in other regional programmes, especially in regard to fish preservation and the training of electronics technicians. It would like to have a medical sterilization plant installed, which would be valuable in connection with its health and family planning programmes. The Agency had established three research institutes in Europe, but none in Asia. His delegation hoped that the suggestion that a research centre and laboratory should be established in Asia within the framework of RCA would be studied with the greatest attention.

56. In expressing his gratitude to the Agency for assistance given to his country during the past year, he said he hoped that a proper balance could be achieved between expenditure on the application of safeguards and expenditure on technical assistance, the two aspects of the Agency's work being of equal importance. He assured the General Conference that his country would continue to support and co-operate in the implementation of the Agency's programmes.

57. Mr. NEMETS (Ukrainian Soviet Socialist Republic), after congratulating the President on his election, said that during its 20 years' existence the Agency had acquired great authority in regard to the peaceful applications of nuclear energy, technical assistance, nuclear safety, environmental protection, nuclear documentation, and research on plasma physics and controlled thermonuclear fusion, as well as in the vital area of non-proliferation of nuclear weapons.

58. He noted that considerable progress had been made during recent times in the cause of peace and disarmament, largely thanks to initiatives of the socialist countries. During the 60 years which had elapsed since the October Revolution, the foreign policy of the USSR had been oriented towards the establishment of peace and security for all nations. Adequate proof of that was provided by the many Soviet initiatives reflected in the agenda of the thirty-second session of the General Assembly of the United Nations. Those noble objectives were incorporated in the new

[5] The text of the agreement is reproduced in document INFCIRC/167.

constitution of the USSR, one of whose chapters was devoted to foreign policy. He also referred to the Franco-Soviet documents on détente and non-proliferation signed during the recent visit of Mr. Brezhnev to France, the declaration of the member States of the Warsaw Pact on détente, and the application of the principles embodied in the Final Act of the Helsinki Conference.

59. The Ukrainian delegation associated itself with the terms of the message of Mr. Brezhnev and considered that it was a matter of urgency to take effective measures to prevent the spread of nuclear arms and the risks of a nuclear war. It saw there, too, a vital role for the Agency; and in that context his delegation took note of the extensive work the Agency had done in relation to the application of safeguards within the framework of NPT.

60. That atomic energy was used largely for peaceful purposes was partly to the credit of the Agency. Unfortunately, however, that energy could be used for other purposes and recently - the neutron bomb bore witness to the fact - certain western groups had embarked on a course which could lead the world to a nuclear catastrophe. Similarly, the intentions of the Republic of South Africa to develop nuclear arms stood in flagrant contradiction with NPT and constituted a threat not only for the African States but also for the whole of humanity.

61. His country considered that at the present time the development of the nuclear power industry was the only rational course. Energy from solar, hydroelectric and geothermal sources could cover only 10% of the world's increasing energy needs, while reserves of fossil fuels were destined to decrease abruptly after the end of the century.

62. More and more experts agreed on that point, as had been shown at the IAEA Conference on Nuclear Power and its Fuel Cycle (the Salzburg Conference)[6]. Work would therefore be continued on the construction of many high-power thermal reactors and on the development of fast reactors based mainly on the uranium-plutonium cycle. That latter solution was necessary also, in his country's opinion, in view of the risk of exhaustion of uranium resources, even taking into account the advantages of reactors operating on the uranium-thorium cycle. The Agency should therefore assume an important role in controlling the utilization of plutonium.

63. Many proposals had been advanced with a view to ensuring that fissile materials were used exclusively for peaceful purposes, especially by the socialist countries: IAEA control should be extended to all nuclear installations in non-nuclear-weapon States, not only to materials supplied to them; the safeguards system should be improved; the establishment of regional fuel cycle centres should be studied; and the physical protection of nuclear materials should be ensured.

64. Noting that in the course of the debate many delegations had described their countries' achievements in the peaceful applications of nuclear energy and that that information was propitious for the widening of international co-operation, he wanted to review the main results obtained in fundamental and applied studies carried out in the Ukrainian SSR.

65. Referring first to energy production, he said that the total installed capacity in the Ukraine was 36 million kW and that it was increasing by 7-8% annually. Nuclear energy was destined to play an increasing part in that expansion. On the occasion of the 60th anniversary of the October Revolution, the Ukraine would put into service the first unit of the Chernobylsk power station with an installed capacity of 1 million kW. Three more power stations were being constructed in the Ukraine, and all featured high unit capacity.

66. He also stated that the Ukrainian SSR was carrying out long-term studies, in collaboration with the Republics of Byelorussia and Moldavia, amongst others, on new types of power reactor, especially fast reactors and high-power breeder reactors. He recalled that his delegation had distributed a brochure giving fuller details of nuclear power production in the Ukraine.

67. His country was carrying out important studies on low-, medium- and high-energy nuclear physics, for which it was using the biggest isochronic cyclotron in Europe.

68. Sources of ionizing radiations had been widely used in many areas. For instance, the Institute of Biology of the South Seas had specialized in studying the pollution of water and had laid down criteria and standards for evaluating the degree of radioactivity in water. Those documents had been used in preparing the international Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (the London Convention)[7].

69. The results of many studies were already being used in the national economy, in particular for the design of new nuclear power stations, but also in all branches of industry, where tens of thousands of radioisotope instruments were in use.

70. About 30 experimental and plant selection centres were using nuclear techniques in mutagenesis to obtain new varieties of useful plants.

71. Nearly all the medical centres and large hospitals in the Ukraine possessed a radioisotope laboratory, where radioisotopes were used for diagnostic and therapeutic purposes. Studies under way on neutron activation analysis should facilitate the early diagnosis of malignant tumours, and the possible uses of neutron sources for their treatment were being studied.

[6] Held in Salzburg in May 1977.

[7] Reproduced in document INFCIRC/205.

72. His delegation welcomed the development of relations between his country and the IAEA. In 1976, a study tour had brought a group of specialists from developing countries to Kiev, and in 1977 an IAEA meeting of representatives of nuclear data centres had also been held in Kiev.

73. His country was participating actively in the exchange of scientific and technical information with the IAEA, within the framework of the International Nuclear Information System (INIS) and the Computer Index of Neutron Data (CINDA). The IAEA had concluded several research contracts with Ukrainian institutes.

74. In June the Director General of the IAEA had visited the Ukraine, and he (Mr. Nemets) welcomed the constructive spirit of the talks which had opened the way to more extensive co-operation between his country and the IAEA.

75. The Ukrainian SSR, for its part, wanted to strengthen those bonds still further. In November 1977, an IAEA advisory group would meet in Kiev and, in 1978, the IAEA intended to organize training courses in the Ukraine on national systems for accounting and control of nuclear materials, as well as two study tours. All those activities would be financed from the Ukrainian voluntary contribution to the Agency's technical assistance fund. In that connection, his delegation wanted to announce that his country would contribute a sum of 80 000 roubles to that fund for 1978.

76. In conclusion, he hoped that the Agency's work in the peaceful applications of nuclear energy would continue to meet with success.

77. Mr. SON HO (Democratic People's Republic of Korea) congratulated the President on his election and Mr. Eklund on his reappointment as Director General of the Agency. He noted with satisfaction the efforts made by the Director General and his staff in pursuance of the Agency's goals. Over the 20-year period of its existence the Agency had performed useful work for humanity in promoting atomic energy, developing safeguards, providing technical assistance and training specialists.

78. Rapid strides were now being made throughout the world in the peaceful applications of nuclear energy, which was attracting the interest of the developing countries. Many newly independent nations, faced with the energy problem, were turning to nuclear power as a means of assuring the economic development and technical progress of their country.

79. The Democratic People's Republic of Korea could report significant progress in the application of nuclear energy, particularly in industry, agriculture, medicine, biology, hydrology and construction. It was also paying great attention to educating its youth and training it in modern techniques, particularly nuclear techniques, inspired by the Communist education programme elaborated by President Kim Ir Sen. Having established a

sound economic base and trained sufficient numbers of scientific and technical personnel, the country would be able to draw even more benefit from the peaceful applications of nuclear energy.

80. He drew attention to the gravity of the situation in the Korean peninsula, which ran counter to the principle of the application of nuclear energy for peaceful purposes. Recalling the American neutron bomb project and the deployment of nuclear weapons by the United States in South Korea, he said that the build-up of tension on the Korean peninsula was a great impediment to the cause of an independent reunified Korea.

81. Despite the principles and programmes for reunification propounded by President Kim Ir Sen, the support of many friendly countries within the United Nations, the appeals made by the Korean people and the resolution passed at the 30th session of the General Assembly calling for the withdrawal of American forces, the United States continued, despite official declarations that it was reducing its land forces in South Korea, to strengthen and diversify its military potential in that region in such a way as to place it under a "nuclear umbrella". That situation was a grave threat to peace in Korea, Asia and the whole world. In order to reduce the tension, the Democratic People's Republic of Korea demanded the withdrawal of American forces and the removal of the nuclear weapons which the United States had installed in South Korea. He felt sure that his country was supported in its aims by the Governments and peoples of friendly nations.

82. Recalling that the Agency had been set up to serve the interests of peace-loving peoples, he said that its task now should be to continue to promote the peaceful uses of atomic energy and, in addition to its current safeguards activities, to take steps to prevent the manufacture of new types of nuclear weapons by countries already having a nuclear arsenal.

83. In conclusion he said that his delegation approved the annual report and the accounts for 1976[8] as well as the budget for 1978.

84. Mr. KAMIL (Indonesia) said that, having presented the candidacy of the President, his delegation was gratified to see him in the Chair, guiding the General Conference to a successful conclusion in its deliberations.

85. He extended sincere thanks to the Austrian Government and people for having given the Agency a home in the historic capital city of Vienna. The commemoration of the Agency's twentieth anniversary gave added significance to the current session of the General Conference. A backward glance over the past two decades provided grounds for satisfaction at the growth and development achieved in the Agency.

[8] GC(XXI)/581.

86. The United Nations, in its famous "Atoms for Peace" resolution of December 1954, had laid the groundwork for the establishment of the International Atomic Energy Agency, which had formally come into being with the adoption of its Statute at the United Nations in New York in 1956. A year later, it had concluded an agreement with the United Nations, thus becoming part of the United Nations system.

87. As a loyal member of the United Nations family, the Agency should not and could not afford to isolate itself from the mainstream of ideas developed and actions taken by the United Nations itself and the specialized agencies. He was referring, in particular, to the new international economic order, to the establishment of which members of the world community were irrevocably committed. At the risk of being repetitive, he would recall that the establishment of a new international economic order was aimed at eliminating the widening gap between the developed and the developing countries, and at ensuring steadily accelerating economic and social development and peace and justice for present and future generations.

88. According to the Statute, the Agency's role in that endeavour was "to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world". In the Declaration relating to the new order, adopted in May 1974, it was resolved to give added urgency to the accelerated promotion of the economic development and well-being of the developing countries, thereby narrowing the gap between the developed and the developing world.

89. All those ideas and activities would have a direct bearing on many aspects of the Agency's organization and programmes, including the composition of the Secretariat, the membership of the Board and the various committees, co-operation among Member States, policies concerning technical assistance and its financing, and the transfer of technology. It was the firm belief of his delegation that the Agency, together with other members of the United Nations family, had a major role to play in the establishment of a new world society based on equity and justice.

90. Touching briefly on the question of the composition of the Secretariat, he pointed out that for the past several years representatives of the developing countries had been expressing their dissatisfaction at what they regarded as a lack of equitable geographical representation in the Secretariat. A few days earlier, the Governor from the Philippines had stressed in the Board that none of the twenty posts of heads of Units in the Department of Safeguards was filled by a national of a developing country. Admittedly, vacancies should be filled by qualified personnel, but he was of the belief that developing Member States could provide candidates having the required skill. And, as the Governor from Argentina had suggested, training courses could, if necessary, be instituted to provide candidates with the necessary additional skill. His delegation noted

with satisfaction that the Director General had promised to remedy the situation.

91. The same regrettable imbalance was to be seen also in the composition of the various bodies of the Agency. Members of the General Conference surely had not yet forgotten the difficulties there had been the previous year in Rio de Janeiro in respect to the election of Members of the Board of Governors and of the General Committee. The same difficulties had again arisen during the election of the General Committee for the present session. A remedy would have to be found. And it was in that spirit that his delegation supported the inclusion in the agenda of the item on Article VI. A. 2 of the Statute, together with the draft resolution seeking an expansion of the membership of the Board. In fact, his delegation would go even further and would favour a thorough study and review of the overall size and composition of the Board, so that a fair distribution might be achieved. Likewise, his delegation believed that the related problems in regard to the General Committee should be seriously studied with a view to rectifying present shortcomings once and for all. It was obvious that arrangements made two decades ago for a membership of some 50 countries were not adequate for a membership twice that size today.

92. According to its Statute, the Agency, in seeking to achieve its objectives, should give equal emphasis and priority to aiding the developing countries and to implementing safeguards. In the annual race for appropriations for technical assistance and safeguards respectively, it was noteworthy that safeguards had constantly come out the winner and technical assistance a poor loser. The increasing number of Member countries coming from the developing world had not resulted in a proportionate increase in the appropriations for technical assistance and many speakers at the General Conference had drawn attention to that anomaly. Having for several years already expressed their dissatisfaction, developing Member States should now seek ways and means to redress the imbalance and should enter into discussion with the more prosperous countries in a serious effort to increase the funds to be devoted to technical assistance.

93. In his statement on Monday, the Director General had revealed the general agreement among Member countries in acknowledging that nuclear energy was a necessary and irreplaceable source of energy for mankind, both in the short and in the long term. The underlying implication was that nuclear energy was indispensable for the well-being of the developing countries. But the developing countries should not remain mere on-lookers or mere consumers, without eventually becoming producers as well. Effective transfer of technology should be carried out so that they might gain the scientific skill and technical know-how needed to promote their peaceful nuclear development.

94. His delegation was of the belief that the transfer of technology so urgently needed by the devel-

oping countries could not be successfully effected if unreasonable barriers to it were instituted under the guise of safeguards against the proliferation of nuclear weapons. It would underline the necessity for effective safeguards against proliferation and possible diversion from peaceful uses of nuclear technology, but the safeguards should be such as not to hamper the needed transfer of technology.

95. For decades, and perhaps even centuries, developing countries had been the producers of raw materials, which had been cheaply acquired by the industrialized countries and which, in turn, had been bought back as processed or manufactured goods by developing countries at enormously high prices. In the new area of nuclear development, developing countries were again destined to become the producers of raw materials but, now, they were determined not to remain for ever mere consumers and buyers of the end-product of the nuclear manufacturing process.

96. His Government expected that the Agency would facilitate the acquisition of the appropriate technology and know-how by the developing countries and would take the necessary steps to that end. It was with that in view that Indonesia was against the automatic application of safeguards in the case of scientific visits and fellowships. It also reserved its position in regard to part of the list of so-called "sensitive technological areas", approved by the Board of Governors at its latest series of meetings.

97. Coming to the question of co-operation among Member States, he said that his Government, while fully committed to international and global co-operation in the peaceful uses of nuclear energy, nevertheless recognized the importance of, and gave its support to, full-scale regional and bilateral co-operation.

98. Indonesia was located in a region consisting of countries which were endeavouring to improve the living conditions and health of their peoples, and to broaden the horizon of their knowledge. Those countries recognized the importance of the role that nuclear energy could play in such endeavours. Accordingly, they had agreed to work together and had established the Regional Co-operation Agreement for Research, Development and Training Related to Nuclear Science and Technology for South Asia, South East Asia, and the Pacific.

99. Under that Agreement, the participating countries were concentrating their efforts in the areas of health, agriculture, the life sciences and the physical sciences. In 1978, the Agency intended to allocate some \$100 000 to finance one new project and five projects already in progress. Considering the modesty of that sum and the small number of projects being undertaken, Conference delegates might tend to regard the programme as an insignificant co-operative endeavour in a secluded part of the world. A few facts and figures might be of some help in providing a more correct picture: the programme was being carried out by eleven countries, i. e. not less than 10% of

the Agency's membership, and it embraced a total population of about 1000 million or some 30% of the total world population.

100. The Agreement was a unique form of co-operation in a specific region where the same problems had to be faced by all, problems which could best be resolved by working together. His delegation considered that the venture was deserving of adequate financial, moral and technical support from the Agency as well as from donor countries. Support should be extended also to implementation of the decision to hold a consultative meeting of the participating countries somewhere in the region during 1978, for the purpose of drawing up a long-term plan of action and of focusing attention on the activities in question. His delegation believed that success in the programme would act as a catalyst for similar co-operation among other Member countries of the Agency belonging to regions in other parts of the world.

101. In conclusion, he reaffirmed that his Government was committed to full support of a total nuclear test ban, to the peaceful uses of nuclear energy, and to international and regional co-operation in the nuclear field, for advancement of the welfare of mankind.

102. Mr. AL-ESKANGI (Libyan Arab Jamahiriya) congratulated Mr. Etemad on his election as President of the General Conference and Mr. Eklund on his re-election as Director General for yet another period of four years.

103. He considered that the Agency should play a far more effective role in the field of nuclear technology. During recent years the developing countries had shown a strong desire to pursue activities in that field and to intensify them. That interest could be expected to grow as the energy problem became more pressing. The developing countries accordingly placed great hope in the Agency's assistance and urged the advanced countries to increase their technical assistance. The Libyan delegation particularly deplored the palpable and unjustified imbalance between the funds allocated for technical assistance and for safeguards. If that situation were remedied the Agency would gain in effectiveness. That did not mean, however, that his delegation underestimated the importance of safeguards.

104. The nuclear technology programme of the Libyan Arab Jamahiriya was being implemented according to schedule. Most of the nuclear physics laboratories of the Al-Fateh University in Tripoli were already in operation. The hot plasma laboratory, which was equipped with the latest diagnostic apparatus, had recently been inaugurated. Moreover, an intensive training programme within the country and abroad was being conducted to meet the growing need for experts and technicians in the field of nuclear technology.

105. The delegation of the Libyan Arab Jamahiriya attached the greatest importance to the question of the inadequate representation on the Board of the regions "Africa" and "Middle East and South Asia".

It considered that the situation required correction and urged delegates to examine it with the greatest care. The Libyan Arab Jamahiriya would make a voluntary contribution of US \$50 000.

106. Mr. NAZIFI (Afghanistan) said that his delegation was attending the present session of the General Conference after an absence of several years. That absence had not, however, been due to a lack of interest in the Agency's work; on the contrary, the Government of Afghanistan had carefully observed the Agency's activities and its efforts to increase the contribution of atomic energy to peace, health and prosperity.

107. On the occasion of the twentieth anniversary of the Agency his delegation wished to congratulate the Agency on what it had done to ensure that atomic energy was used to further peace and the prosperity of mankind. His delegation also commended the Director General on his devotion and tireless activity in pursuit of those objectives, and on his outstanding leadership qualities.

108. Afghanistan was one of the least developed countries. It was facing enormous problems of social and economic development, and its position as a land-locked country had further hampered its development. Nevertheless, the Government and people of Afghanistan were continuing their efforts to achieve social and economic progress, as the country fortunately had potential for agricultural development and for the exploitation of mineral resources. Those efforts had been accelerated after the establishment of the Republican order on 17 July 1973. A seven-year development plan had been launched and was in the process of implementation.

109. The activities of the Afghan Atomic Energy Commission were limited in scope, but nevertheless promoted the socio-economic development of the country. Education in nuclear science was an immediate goal. Basic nuclear physics was being taught in the Faculty of Science at the University of Kabul, and a nuclear science laboratory was to be established in 1977 with the Agency's assistance. Afghan scientists still had to go abroad, however, to receive higher academic education. A first seminar on "application of radioisotopes" had been organized at the University of Kabul with the sponsorship of the Agency; it was aimed at enlarging the knowledge of the country's scientists in the field of nuclear science. A cobalt-60 radiotherapy unit had been installed at the University hospital with the aid of the Hungarian Government and the Agency.

110. Several other projects involving nuclear techniques were soon to be undertaken at the Faculty of Agriculture of the University of Kabul. Eventually it would be necessary to organize, throughout the country, mass vaccination programmes against lungworm, which affected sheep; the radiation-attenuated vaccine would prove useful for future stock-breeding in Afghanistan.

111. The detection and utilization of ground water was another field worth examining. It was not

always known how surface water and ground water interacted, and there were underground infiltrations of salinated water. Isotope techniques were relatively cheap, simple and fast, and might be useful in solving such problems. Afghanistan was also interested in unexplored mineral resources on its territory which might be studied by means of nuclear techniques. Preliminary studies had been conducted with the assistance of the United Nations with a view to finding potential sources of uranium in Afghanistan. The results had been encouraging and it was hoped that uranium would in fact be found. Afghanistan was a signatory of, and also a party to, NPT. It believed that atomic energy should be used for peaceful purposes and for the benefit of mankind as a whole, and it had firmly supported efforts aimed at complete disarmament, in particular nuclear disarmament. However, since every State had the right to use nuclear energy and technology in the fields of agriculture, health, mining, food production and life sciences, Afghanistan hoped to be able to expand, with the Agency's assistance, the currently limited activities of the Afghan Atomic Energy Commission. Afghanistan hoped that the Agency would assist it in conducting studies of nuclear energy and other forms of energy. In conclusion the Afghan delegation wished to express its appreciation of the assistance provided by the Agency under the regular programme and hoped that the Agency would continue to expand that assistance in the field of the peaceful uses of nuclear energy.

112. Mr. de BOER (Netherlands) congratulated Mr. Etemad on his election as President of the General Conference, and Mr. Eklund on his re-election as Director General of the Agency for a further four years. He considered that the twentieth anniversary of the Agency coincided with a highly critical phase in the development of nuclear energy.

113. Great changes had taken place during those twenty years. The safety systems used in nuclear installations were perhaps not yet foolproof, but satisfactory progress had been made. There had been a time when the peaceful use of nuclear energy had not been controversial: efforts had been made to solve the problems connected with safety; there had been an awareness of the risks inherent in any misuse of that form of energy, but it had been hoped that they could be avoided by means of the safeguards system and the provisions of NPT. At the present time, however, the impact of atomic energy on the environment and, in particular, the disposal of nuclear waste were giving rise to lively debate in many Member States that had already embarked on nuclear programmes.

114. Moreover, public opinion was concerned - to a lesser extent - about the use that terrorist groups might make of nuclear energy. However, it was attitudes to non-proliferation which had undergone the most pronounced change. The Netherlands Government attached exceptional importance to the Agency's safeguards and associated activities. There was no doubt that the safeguards system needed to be improved and its effectiveness enhanced. In conjunction with NPT the safeguards

system was the surest method of preventing the proliferation of nuclear weapons, and it should be strengthened as far as possible, especially since an effective safeguards system was in the interest of all countries, whether or not they had facilities to submit to them. It had been realized that an agreement on peaceful nuclear activities might enable a country possessing certain facilities to obtain materials that would enable it to manufacture nuclear weapons. Therefore attempts had been made to reinforce the system designed to prevent proliferation. Thus, the countries exporting nuclear installations, materials and technology regularly met in London; the Government of the Netherlands considered that importing States which did not possess nuclear weapons should also take part in those negotiations.

115. The establishment of regional nuclear fuel cycle centres might also contribute to the cause of non-proliferation. The study conducted by the Agency would constitute an important point of departure for subsequent work on such centres. In addition, the Government of the United States of America had proposed that an international study of the nuclear fuel cycle should be arranged to examine present and future proliferation risks while meeting world energy demands. The Netherlands Government hoped that a large number of countries would take part in the search for a safer fissionable materials cycle, and that the Agency would play an important part in those activities.

116. The Netherlands Government considered that the Agency was performing its tasks satisfactorily. However, the Agency would, in close collaboration with all its Member States, have to face the new situation that had arisen in the field of nuclear energy. It was in the interest of all Member States that the peaceful use of nuclear energy should meet the needs of various countries, yet without leading to unacceptable risks. The Netherlands Government was pleased to learn that the Agency had completed a preliminary study of an international system of plutonium control in which the Netherlands had repeatedly shown great interest. The report of the Ad Hoc Advisory Group on Nuclear Explosions for Peaceful Purposes was an excellent document representing a first step towards the solution of the problems that had arisen in that sphere. The Netherlands agreed that the benefits derived from peaceful uses of nuclear explosions should be available to non-nuclear-weapon States party to NPT. However, the potential advantages of any given peaceful nuclear explosion should be carefully weighed against the dangers of horizontal and vertical proliferation of nuclear weapons. For the Netherlands, the adoption in the immediate future of a total ban on nuclear tests was far more important than any benefits that might be derived from nuclear explosions for peaceful purposes, the economic usefulness of which had yet to be proved convincingly.

117. The Netherlands Government welcomed the preparation of a first draft for a physical security convention, and hoped that that important task would soon be successfully dealt with. The

Salzburg Conference on Nuclear Power and its Fuel Cycle had been impressive; however, it was to be feared that it had somewhat neglected the principal problems that were worrying the public. The Netherlands were pleased to declare that, subject to parliamentary approval, they would contribute US \$111 000 to the General Fund for 1978, a sum which was in accordance with their assessment for the Regular Budget.

118. Mr. MIHULECEA (Romania) joined other delegations in congratulating the President of the Conference on his election. The Director General's untiring efforts in promoting the noble objectives of the Agency, too, deserved mention, and he was to be congratulated on his reappointment.

119. Reviewing, on the occasion of its twentieth anniversary, the Agency's achievements and the main directions of its future activity, he said that on the whole the Romanian Government judged the work of the Agency positively: it had obtained important results, especially in technical assistance, the promotion of research and the training of specialists, even though it had been hampered by certain shortcomings. In international life the preceding few years had been marked by the will of the peoples of the world to achieve independent economic and social development, and also by fresh progress in détente and co-operation among all States. The peaceful uses of atomic energy had made great advances, giving further proof of the advantages it offered for economic and social development. Romania therefore emphasized that the Agency should respond more fully to the aspirations of the developing countries, which wished to utilize nuclear energy for the purpose of eliminating underdevelopment.

120. On the basis of its experience and achievements, the Agency should, in Romania's opinion, make its third decade that of the peaceful utilization of atomic energy. For that purpose, it was necessary to guarantee to all peoples access to the peaceful applications of atomic energy, to establish and apply a code of principles for co-operation in that field and to give effective support to the efforts of the developing countries. It was also important, more than ever before, to stop the nuclear armaments race, including the development of new weapons such as the neutron bomb, and to undertake disarmament so that the fissionable materials and other resources thus released could be used for peaceful applications. It was essential that in applying NPT the rights and obligations of all countries be taken into account.

121. The Agency had important responsibilities under its Statute. Romania therefore considered that the Agency should further improve its functioning and structure, democratize its organization and focus its activities on the peaceful uses of atomic energy and on the provision of technical assistance in that field. In Romania's view, the Agency was an essential international forum where States could discuss on an equal footing all questions relating to co-operation in the peaceful uses of nuclear energy and the transfer of nuclear technology.

122. Being interested in rapid economic development, Romania attached particular importance to practical uses of nuclear energy such as power generation and the introduction of nuclear techniques in industry, agriculture, medicine and biology, because in the present-day world real economic and social development could not be achieved by any other means.

123. Romania approved the draft programme for 1978, which took account of the latest achievements in the nuclear field and the needs of Member States. It favoured in particular the programmes relating to nuclear power, training, promotion of applied research, nuclear safety and radiological and environmental protection.

124. His country also endorsed the budget for 1978 and the target for voluntary contributions. It

would contribute to the technical assistance fund in proportion to its base rate of assessment, but felt that the use of resources should be rationalized.

125. Romania supported the proposal to amend Article VI of the Statute, which aimed at a fairer representation of certain developing regions.

126. In conclusion, he expressed his firm belief that during the third decade of its existence the Agency would be able to respond still better to Member States' needs and that international co-operation in the peaceful uses of nuclear energy would continue to develop. Romania would not fail to contribute to the fulfilment of those objectives.

● The meeting rose at 1.5 p. m.

