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RECORD OF THE TWO HUNDRED AND TWENTY-FIFTH PLENARY MEETING

Held at the Neue Hofburg, Vienna,
on Thursday, 25 September 1980, at 3.20 p.m.

President: Mr. HAUNSCHILD (Federal Republic of Germany)
later: Mr. AL-KABBANI (Saudi Arabia)

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**/ GC(XXIV)/637.

The composition of delegations attending the session is given in documents GC(XXIV)/INF/193/Rev.3, INF/193/Rev.3/Mod.1 and INF/193/Rev.3/Mod.2.

GENERAL DEBATE AND ANNUAL REPORT FOR 1979 (GC(XXIV)/627) (continued)

1. Mr. KAPSAMBELIS (Greece) said that the energy crisis at the present time was extremely serious. The Agency's excellent report for 1979 reflected the worsening of that crisis, which had also been emphasized from various points of view in the statements which had already been heard. Even the headlines and unfortunate news of the past few days were a reminder of the urgency of the problem.

2. Energy was vital for all countries, whatever their consumption. Food production, environmental conditions, the quality of life, general economic survival and political independence were closely connected with the assurance of energy requirements. Nuclear power had a vital part to play in meeting energy requirements not satisfied by coal and oil, which, moreover, presented technical, physical and political problems. Greece therefore attached ever greater importance to nuclear energy, despite the complexities involved, and welcomed the intensification of the Agency's activities in the fields of nuclear safety and radioactive waste management. It hoped that the Agency's initiatives would allay public concern about the peaceful uses of nuclear energy. No doubt public information on the relative advantages and risks of nuclear power could be made still more effective.

3. The Agency had made good progress in its safety codes programme. Greece was among those countries that had already requested a visit of safety experts from the Agency to help the national authorities in applying the Agency's standards.

4. It looked forward to the International Conference on Current Nuclear Power Plant Safety Issues to be held in Stockholm: that marked an important step in the same direction which, one hoped, would result in an agreement as satisfactory as the Convention on the Physical Protection of Nuclear Material (CPNM). Greece had been among the first to sign that Convention, early in 1980.

5. Greece would particularly welcome an agreement or code of conduct covering those problems of nuclear safety which spanned frontiers - which were, in other words, truly international.

6. He felt the past year had been a fruitful one for the Agency. Some of the positive results achieved were progress in the International Plutonium Storage (IPS) scheme and the study on spent fuel management, the contribution to the International Nuclear Fuel Cycle Evaluation (INFCE), the establishment of the Committee on Assurances of Supply (CAS) and the agreement to strengthen the technical assistance programme. Setbacks, such as those encountered in the UN Global Negotiations in New York or in the Second NPT Review Conference, rendered the Agency's work even more important and necessary. Although no consensus had been reached at the Second NPT Review Conference, the views expressed there could still have a positive impact on deliberations in the Agency. The Agency's role, at least, was undisputed.

7. Greece had been among the first countries to ratify NPT and still considered the Treaty to be the keystone of the future international nuclear order. NPT was essential to a general reduction of armaments, and hence to disarmament, international stability and the security of its signatory States. Greece supported the ratification of NPT by all countries and congratulated the States which in the past year had ratified the Treaty or concluded safeguards agreements with the Agency.

8. A safeguards system or international surveillance system was needed, and its existence demonstrated the presence rather than absence of political will and trust among nations. Such systems would remain necessary as long as both vertical and horizontal proliferation continued. Until effective safeguards were applied to all the nuclear activities of non-nuclear-weapon States, the possibility of proliferation would continue to cause concern.

9. Greece welcomed the safeguards report of the Agency and the provisions for the financing of safeguards agreed by the Board. However, experience had proven how difficult it was to prevent a country from switching from a peaceful nuclear programme to a military one. Even the Agency had been unable to withstand the political will of countries to do so, once they had decided on such a course.

10. Non-proliferation and energy were political, rather than technical, problems and could only be solved by co-operation. That might seem a commonplace, but it was an important principle to be observed in such questions as the balance between the Agency's regulatory and promotional activities, technical assistance, the evaluation of INFCE results and further dialogue within the Committee on Assurances of Supply.

11. The Director General had stated that "irrevocable safeguards must be accompanied by irrevocable supply assurances" and it was true that, although the danger of proliferation could be limited without jeopardizing the use of nuclear energy for peaceful purposes, it could never be eliminated.

12. Accession to NPT also implied the need to reinforce the security guarantees of the non-nuclear-weapon States, as well as guarantees covering the free use of

nuclear energy for peaceful purposes. The lack of consensus at the NPT Review Conference made the Committee on Assurances of Supply all the more important, and he stressed the importance of achieving as wide a consensus as possible on the conclusions of the Committee, whose deliberations would certainly help restore confidence in international nuclear relations. Greece had followed the INFCE process carefully and would try to participate constructively in the work of CAS.

13. During the past year much time and energy had quite rightly been given to the evaluation of the technical assistance programme. Greece recognized the need to ensure sufficient resources for the technical assistance programme and to expand its scope, in particular with respect to the training and advisory services. It therefore welcomed the establishment of indicative planning figures for 1982 and 1983 and the agreement reached in the Board on the 1981 target; he pledged Greece's full share ($45 500) of that target.

14. Greece was at once a contributor to and a grateful recipient of technical assistance. It appreciated the Agency's assistance in its uranium exploration work around the Strimon basin in the Serres area of northern Greece, where a medium-scale experimental mining operation was under way. There was, of course, a considerable lead time between exploration and production.

15. Greece was pursuing a programme of primary energy source diversification to reduce its dependence on imported oil. At present, approximately 35% of the country's electric energy requirements were met by oil, 52% by lignite and 13% by water power. According to the plans of the Greek Public Power Corporation, by 1984 the electric energy requirements met by oil would be reduced to 27%, while 61% of the requirements would be covered by lignite and 12% by hydroelectric stations. In 1989 those figures would be 2% for oil, 77% for lignite, 8% for coal, 12% for water power and 1% for nuclear energy.

16. The Thassos-Prinos oil wells, which would come into operation in the Spring of 1981, were expected to cover 13% of domestic oil needs during the first 10 years of operation.

17. The Greek Government had authorized the Greek Public Power Corporation to proceed with preparatory planning for a nuclear power plant to be operational in 1989-90. The Public Power Corporation, assisted by a consulting agency, was carrying out a site selection and qualification study. At the same time, the recently formed Nuclear Regulatory Service, which was attached to the President of the Board of the Greek Atomic Energy Commission and responsible for all nuclear regulation matters, was preparing siting regulations based on the IAEA Nuclear Safety Standards.

18. He expressed his delegation's deep appreciation to the Secretariat for its excellent work in preparing the annual report and its invaluable contribution to the smooth functioning of the Agency. Messrs. Hall, Kakihana and Abbadessa deserved particular thanks for their devotion in promoting the Agency's goals. He reaffirmed his delegation's full confidence in the Director General, Sigvard Eklund, and in his wise, able and tireless guidance.

19. Although Greece's term on the Board of Governors had come to an end, it would continue to support the Agency's work fully and to participate constructively in its activities. Its work within the Agency would be complemented by its participation in CERN and, more particularly, EURATOM, of which Greece was to become a member on 1 January 1981.

20. Mr. BELODED (Ukrainian Soviet Socialist Republic) said that one of the main aims of the foreign policy of the Soviet Government was to bring the arms race to an end and avert the threat of nuclear war. In that connection, he stressed the importance of NPT, a Treaty which also promoted co-operation in the peaceful uses of atomic energy. The recent NPT Review Conference had reaffirmed the value of the Treaty and had emphasized the need to strengthen the Agency's safeguards system.

21. Since the twenty-third session of the General Conference, there had been further, although only slight, progress in the development of nuclear power. The Ukrainian Soviet Socialist Republic was expanding its own programme in that field as part of the current five-year plan, under which more than one half of its electrical energy was intended to come from nuclear sources.

22. Theoretical studies carried out in the Ukraine had provided new information about nuclear processes. Work was continuing at the Kiev and Kharkov scientific research centres on fundamental and applied nuclear and plasma physics. Nuclear sources were being used for studies in physics, chemistry, materials science, geology and biology. Radioisotope instrumentation had been developed for applications in a wide range of fields. Instruction on the use of isotope methods and equipment had been given at IAEA courses for scientists from developing countries in 1978 and 1979.

23. Future economic development plans for the Ukraine envisaged an average annual increase of 7-8% in electricity generation, mainly through the construction of new nuclear plants. Two 2-GW installations were already in operation at the Chernobyl site and a third was being prepared for start-up. Other plants were

under construction. Particular attention was being given to the problem of using nuclear power to produce heat, and it was planned in the 1980s and 1990s to provide several large towns with plants generating both district and industrial heat.

24. Scientific research was proceeding on problems related to the reliable, safe and economic operation of nuclear power plants. The subjects being investigated included the behaviour of materials, the production of high-reliability components and the physics of high-power reactors. Great attention was being paid to the training of properly qualified personnel. Problems of special importance were protection of the environment and the safety of the operating staff and surrounding population. The Ukrainian delegation strongly supported the Agency's programme in nuclear safety, especially the work on the preparation of codes and guides.

25. Nuclear power could only develop effectively if full use was made of natural uranium resources. Work was continuing in the Ukraine on the design physics and engineering of a breeder reactor with dissociating coolant proposed by the Byelorussian Institute of Nuclear Power. Preliminary calculations gave optimistic forecasts of the main parameters.

26. The scientific and technical co-operation between the Ukraine and the Agency was increasing, especially in connection with the organization of courses and the exchange of information through the International Nuclear Information System (INIS).

27. The Ukrainian Soviet Socialist Republic attached great importance to technical assistance. Its voluntary contribution had increased from 80 000 to 100 000 roubles between 1978 and 1979, and would rise in the current year to 135 000 roubles. That was an example of the kind of understanding and co-operation that the socialist countries accorded to developing nations. They believed that technical assistance should be granted without imposing restrictive conditions on the recipients.

28. Effective Agency safeguards formed a most important part of the measures designed to prevent the proliferation of nuclear weapons. Considerable progress had been made in improving safeguards techniques and methods for the treatment of safeguards information. However, some problems still remained, for example the development of systems suitable for all types of reactor and the long-term storage of spent fuel.

29. The Ukrainian delegation was satisfied with the Agency's programme for 1981-86 and the budget for 1981. For the first time in the Agency's history the budget showed zero growth in real terms. The Secretariat was to be congratulated for working out an acceptable order of priority for the various activities, with the highest places being given to safeguards, nuclear safety and technical assistance. The savings that could be made in certain non-priority areas might be used to extend the work on nuclear power and the fuel cycle. The Committee on Assurances of Supply would play an important role in strengthening non-proliferation. The Ukrainian delegation believed the Committee could help to increase understanding about the application of Agency safeguards to the entire nuclear activity of non-nuclear-weapon importing States which were not party to NPT.

30. Mr. SUAREZ RUEDA (Ecuador) said that since the Director General's visit to Ecuador one year ago, considerable progress had been made in his country towards the development of nuclear energy. Ecuador had a well-defined nuclear energy programme, which came under the General Development Plan that had been in force since August 1979, and by 1984 it would have a research reactor and the laboratories needed to make optimum use of it.

31. Thanks were due to the Agency for its assistance with the programme. Ecuador had been one of the first countries to benefit from Agency technical assistance on the basis of non-convertible currencies, and he was confident that the activities planned together with the Agency were being carried out in the appropriate fashion. Non-convertible currencies were also being used for technical assistance with nuclear medicine equipment for provincial hospitals.

32. Ecuador wished to begin systematic exploration for radioactive minerals, and had requested UNDP and the Agency for assistance with that task.

33. Thanks to the assistance of the Spanish Junta de Energía Nuclear (JEN), since April 1980 technical specifications had been ready for the facilities at the Nuclear Research Centre. Although the JEN was in charge of designing the facilities, it was being assisted by many Ecuadorian professionals; in that way a transfer of technology was being effected.

34. He also expressed his country's gratitude to the atomic energy commission of Argentina for expert and training services, and to those of Chile and Peru for support and co-operation. It would be seen that co-operation in the Latin-American region was extensive, and he invited countries in the region to participate

in the Workshop on Comparison of Legislation Relating to the Prospecting for and Mining of Radioactive Minerals, which was to be held in Quito in the second week of October under the auspices of the Inter-American Nuclear Energy Commission and the Ecuadorian Atomic Energy Commission.

35. His Government wished to endorse the resolutions adopted at the meeting of non-aligned countries on the peaceful uses of nuclear energy from 30 June to 4 July 1980 in Buenos Aires. It was high time that sufficient attention be given to the influence of nuclear energy on the development of the Third World.

36. The various training courses organized by the Agency on aspects of nuclear energy for peaceful purposes were valuable, but experience showed that, in order to solve the serious problems faced by States, large numbers of staff with scientific training at a high level were required, and training only in specific techniques was insufficient. The Agency should therefore organize, as a matter of priority, post-graduate courses lasting for a minimum of two years. In that way those working in atomic energy would receive a suitable basic scientific training which would enable them to make better use of techniques involving radioisotopes and radiation, thereby assisting countries to find effective and even original solutions to their problems.

37. Mr. SAMPA (Zambia) welcomed the fact that the sister Republics of Burundi and Upper Volta had that year been accorded observer status at the session and urged not only them but also other African States, in particular those in the part of Africa near Zambia, to become full members as soon as possible. He strongly believed that part of these countries' immediate development needs could be met through the uses of nuclear techniques in such fields as agriculture, medicine, water resources and further exploration for energy sources.

38. He wished to reaffirm Zambia's strong belief in and support of the Agency's Statute, particularly the Agency's two major promotional and safeguards functions. He recognized the difficulties arising from the various interests of Member States and praised the Director General and his staff for their untiring efforts in meeting the diverse needs of Member States.

39. During 1979, the Agency had assisted Zambia in its agriculture, nuclear electronics, radioactive raw materials and training activities. He was happy to report that the project on the use of radioisotopes in agriculture at the Central Agricultural Research Centre in Zambia was being successfully implemented. The only difficulties experienced were in the supply of radioisotopes, owing to

flight changes from the supplier side. Projects in nuclear physics, nuclear electronics, uranium analysis and ore processing were progressing at a far slower pace, however, chiefly through delays in the arrival of experts and/or the provision of equipment out of phase with expert services, which tended to make the assistance given less effective.

40. Along with the majority of Member States, Zambia wished to see the technical assistance programme substantially funded from the Regular Budget. However, despite the continuing low level of funding, the interim solution had, at least, introduced an element of predictability.

41. Zambia was fortunate to have adequate hydroelectric energy sources to cater not only for its needs but also some of the needs of its neighbours, with the potential to further develop those resources. The supply of hydroelectricity would remain adequate for quite a long time. However, Zambia was well aware that after the turn of the century there might be need for other sources of energy, including nuclear electricity, and it therefore opposed any imposition of unilateral conditions that hampered nuclear trade.

42. Zambia had been privileged to observe the Second Review Conference of the Parties to NPT, and regretted that in spite of some progress in some areas, the Conference had been unable to produce a consensus document. He looked forward to the time when outstanding issues would be resolved in a manner ensuring universal adherence.

43. Zambia still maintained that the representation formula for the Board of Governors was grossly unfair to the regions of Africa and the Middle East and South Asia. Like other progressive countries in the Agency, it urged that the serious imbalance be remedied, and he reiterated Zambia's firm support for the original proposal to amend Article VI.A.2 of the Statute so as to give the areas in question three and two additional seats respectively. The proposal was based solely on the principle of equitable geographical representation in the Agency, and the principle had been cherished in the entire UN system. He was dismayed that for a third time the Board of Governors had made very little progress in finding a just solution to the problem and appealed to the General Conference to try hard to do so.

44. He believed that one of the most effective ways of strengthening the non-proliferation regime was to declare regions with no known nuclear weapons to be nuclear-weapon-free zones. Since 1964 the efforts of Member States from the African region, and in particular the efforts of the Organization of African

Unity (OAU), to declare the African continent a nuclear-weapon-free zone had been frustrated by the action and intentions of the apartheid régime of South Africa.

45. He quoted from Zambia's statement in 1978:

> "... My Government has always expressed grave concern and reservations over tendencies, from any quarter that abets the vile system of apartheid. We have cautioned against actions that give the apartheid regime a semblance of international respectability."

46. Zambia strongly opposed the existing association between the Agency and South Africa in the field of nuclear science and technology, because that association only benefited a minority section of that country's population.

47. It had appealed to Western countries, members of the Agency, to cut off collaboration with South Africa in the field of nuclear science and technology. Such collaboration had enabled the apartheid regime to acquire nuclear weapon capability.

48. Document GOV/INF/377 contained "Matters of interest to the Agency discussed by the General Assembly of the United Nations". Among those matters was the question of Namibia. He drew attention to General Assembly Resolution 34/92C, entitled "Action by intergovernmental and non-governmental organizations with respect to Namibia", by which the General Assembly - inter alia - requested all specialized agencies and other organizations and conferences within the United Nations system to grant full membership to the United Nations Council for Namibia, so that it might participate in that capacity as the Administering Authority for Namibia in the work of those agencies, organizations and conferences. Namibia was illegally occupied by the apartheid and racist regime of South Africa against the wishes of the Namibian people and in the face of international opinion.

49. The UN Council for Namibia was not represented at the present conference. He appealed to the General Conference to resolve that it be invited to become a full member of the Agency, so that at the next General Conference, in 1981, the people of Namibia would have their own representatives.

50. Zambia, as always, pledged to contribute to the General Fund for 1981 in accordance with its assessed rate of contribution, which reflected its commitment to the Agency's activities, especially the provision of technical assistance.

51. Mr. NOVAIS MACHADO (Portugal) thanked the Agency for the benefits and valuable services it provided to all Member States including Portugal.

52. He stressed the value of the technical assistance given to his country, which was particularly vital in the fields of uranium exploitation and exploration, the planning of nuclear activities and nuclear safety.

53. The Agency's efforts in publishing safety guides and codes filled an important gap and would certainly contribute to greater public confidence in nuclear power, but there was still a great deal of work to be done to win public acceptance of nuclear energy.

54. His delegation attached much importance to the work done by the Agency in implementing safeguards which were aimed at preventing the proliferation of nuclear weapons. Having signed the Treaty on the Non-Proliferation of Nuclear Weapons in 1977, his country observed with great pleasure the growing number of States party to the Treaty and had taken part with great interest in the recent Second NPT Review Conference.

55. His Government had followed closely the work of the International Nuclear Fuel Cycle Evaluation and hoped that its conclusions would be fruitful. The results of INFCE should increase the feasibility of the use of nuclear energy for peaceful purposes.

56. The current world energy crisis was affecting his country severely, especially as it did not possess significant quantities of fossil fuels. A nuclear energy programme based on its uranium resources could reduce his country's considerable energy dependence on foreign countries, simultaneously promoting development and improving the welfare of the people. To date, no decision had been taken on whether or not to install nuclear power plants in Portugal and electricity was provided by fossil fuel plants.

57. Preparations were going ahead to create the conditions required for a nuclear power programme by developing infrastructure and carrying out manpower training for the event that the Portuguese authorities took a positive decision.

58. Mr. BARREDA DELGADO (Peru) said that the Peruvian Nuclear Plan, drawn up in 1977, divided up into two stages, the first of which, for the period 1977-1983, was basically aimed at training the requisite manpower, constructing small operational facilities, amassing technical information for subsequent nuclear development, ascertaining the country's uranium potential, and studying the feasibility of building nuclear power plants. The second stage, running from 1983 to 2000, was intended to reap the benefit from the present investment and effort by effectively transferring the nuclear applications of interest to the population and productive sectors of Peru.

59. The results of the first stage had so far included training programmes for the staff working at the Huarangal Nuclear Research Centre, backed up by fellowships awarded by the Agency, and among the training facilities and laboratories

being constructed was a neutron physics laboratory, at which a neutron generator would be installed in 1981. Those measures would permit a steady flow of 50 professional staff and 100 technicians per year from 1981 onwards.

60. A nuclear research centre was being built at Huarangal, 30 kilometres to the north-east of Lima, under a contract with the Argentine National Atomic Energy Commission and in pursuance of the Bilateral Co-operation Agreement between Peru and Argentina. The construction was scheduled for completion in two years, which, together with one year more for the installation of equipment and trial run, meant that the centre would come into operation early in 1984. Furthermore, the submission of international tenders for the supply of 20%-enriched uranium and the fabrication of reactor fuel elements was nearing its end. The co-operation between Peru and Argentina had been very fruitful and was a good example of mutual understanding between two developing countries.

61. To evaluate the uranium potential of Peru, the Nuclear Plan provided for projects aimed at identifying uranium deposits on national territory and at developing the capacity essential for important decision-making in the area of nuclear fuel, together with Peru's participation in the near future in the international uranium market, with a view to economic and technological self-sufficiency.

62. The Peruvian Nuclear Energy Institute (IPEN) had divided the country into uranium-bearing regions, further split up into uranium prospecting units (minimum area two million hectares). In one such area in the south of the country an aerial prospecting project based on gamma spectrometry had been carried out jointly with the Agency, producing interesting results, and a British firm was at present analysing the relevant data with a view to evaluation of the feasibility of mining the deposits.

63. In view of the fact that the country's energy requirement by the end of the century might be almost six times what it was at present, the IPEN and the State Electricity Company of Peru, supported by UNDP and the Agency, was developing the nuclear power planning programme on the basis of the WASP system.

64. Priority areas in the application of nuclear energy were medicine, agriculture and food production. In that connection, nuclear biology and medicine centres were being set up jointly by the Ministry of Health and the University of Peru, and the Loayza Hospital Centre at Lima had already been working for two years. In 1980 construction of another centre had started at the hospital complex, which was being built by the Peruvian Institute of Neoplastic Diseases.

65. In agriculture and food production an experimental radioisotope laboratory had been inaugurated in 1979 at the La Molina Agricultural University. Four lines of research would be followed at the centre, namely soils, fertilizers and irrigation; animal food production, reproduction and health; plant improvement by induced mutations (maize, potatoes, sorghum, etc.); and plant physiology and carbon-14 photosynthesis.

66. In 1980, a National Nuclear Safety and Radiological Protection Authority had been set up for the purpose of formulating safety standards and issuing nuclear facility licences. By a law passed in July 1980, both the IPEN and the above-mentioned Authority now came under the Presidency of the Republic, thereby gaining more administrative independence and acquiring greater authority for planning and directing the country's nuclear development.

67. The present status of nuclear energy in the world showed that there was a nuclear economic cycle, in which a small number of nuclear countries were responsible for producing 90% of the available nuclear technology, equipment and facilities, which they sold to the rest of the world. At the other end of the cycle were all the other countries, at different stages of development, many of which supplied the nuclear raw materials needed by the nuclear countries, such as uranium, thorium and cobalt. Those countries naturally wanted to market their products at an aggregate value ensuring a maximum amount of work and an improved standard of living for their populations. But that aggregate value was represented by technology, which they had to buy from the developed countries on an exchange basis that was not always just or equitable. Much of the technology required was jealously guarded by the nuclear countries under the pretext of the non-proliferation of nuclear weapons, but that was in fact a thinly-disguised and dangerous form of technocratic colonialism. Moreover, that policy had in many instances inhibited Peruvian development plans and forced Peru at times to squander its nuclear efforts, at the expense of the priority objective of combating hunger and poverty among the population.

68. In addition to the Bilateral Agreement on Co-operation with Argentina, mentioned earlier, in January 1980 Peru had signed a similar agreement relating to nuclear development with the United States of America. It was hoped that it would prove to be a worthy example of bilateral co-operation between a developing and a developed country.

69. It was encouraging to see the increase in voluntary contributions for technical assistance, together with the offer of supplementary funds to cover

technical assistance projects requiring a substantial outlay for implementation of the Peruvian Nuclear Plan.

70. In conclusion, he hoped that the Agency would spare no effort to seek the most suitable ways by which the whole of mankind could benefit from nuclear science and technology, without hegemony and with the help of all.

71. Mr. THAM (Sweden) after congratulating the President on his election, observed that nuclear power was not only an important source of energy but also a cause of political controversy, his own country's experience being a case in point. The debate on the merits and hazards of nuclear power had lasted more than five years and had finally been settled by a national referendum held six months previously. As a result the Swedish Parliament had decided that the nuclear energy programme should comprise a total of 12 commercial-scale nuclear reactors which should be used for their technical lifetime, after which other energy sources should be introduced. The share of electricity generated by nuclear power would thus grow from 25% to 45% by the end of the 1980s. His country made extensive use of the Asea-Atom BWR-type reactor which had been developed in Sweden and was free from foreign licences. Sweden had developed a fabrication facility and formulated a domestic programme for spent-fuel storage away from the reactors, together with plans for a specialized maritime transportation system for spent fuel and nuclear waste. Sweden compared favourably with most industrialized countries in the scope and technological level of its nuclear industry and related infrastructure.

72. His Government attached particular importance to the unique and vital role played by the Agency in the implementation of international safeguards against the diversion of nuclear materials. The wide acceptance of Agency safeguards undoubtedly added a measure of international confidence in nuclear energy programmes, and that confidence was largely based on the fact that no diversion of nuclear material from facilities under Agency safeguards had been reported.

73. Nevertheless, a general feeling of reassurance was not enough. Safeguards were still not as universal and non-discriminatory as they should be. Confidence both in nuclear energy and in the cause of non-proliferation would be greatly enhanced if all non-nuclear-weapon States were to place both present and future nuclear activities under IAEA safeguards. Such action would help to eliminate a quite unnecessary element of discrimination arising from differences in the scope of safeguards and would also improve the prospects for international

co-operation and strengthen the predictability of nuclear supply. Full-scope safeguards should indeed be made a common requirement for supply; non-nuclear-weapon States party to NPT already met that requirement.

74. Every effort should continue to be made to improve both the effectiveness and the efficiency of Agency safeguards. Further research and development had to be carried out, and action was required on a number of main priorities. All steps should be taken to maintain and reinforce confidence in the Agency's ability to deal effectively with its increasingly difficult safeguards task. The results would directly affect the degree to which States found it necessary to apply supplementary measures of control.

75. Many Member States had participated in the Second NPT Review Conference. The absence of a final document expressing a consensus on the substance covered in the review could not detract from the fundamental importance of the Treaty, and the Conference could be seen as a reaffirmation by the parties of their commitment to the letter and spirit of the Treaty. Some encouraging results had been reached on the central theme of the Treaty, which was to prevent the acquisition of nuclear explosives. However, recent disturbing reports on the transfer of sensitive equipment to an area of tension were an acute reminder of the need to exercise restraint and prudence in nuclear trade.

76. Real efforts were necessary to establish sound, predictable and reliable supply arrangements fully consistent with non-proliferation. The attention given to those matters during INFCE had been most helpful. INFCE had provided an excellent data base and generated a greater awareness of many current technical and institutional matters. The need for a common approach to supply consistent with non-proliferation had also been established. The work of INFCE should continue, and his delegation therefore welcomed the setting-up of the Committee on Assurances of Supply. The aim of the Committee should be to provide assurances concerning both satisfactory non-proliferation measures and the predictability and stability of nuclear supply.

77. His Government attached particular importance to the establishment of an international scheme for the storage and management of plutonium and had commissioned a study on the subject in 1975. He welcomed the fact that an Agency expert group, actively supported by his country, seemed to be making considerable progress towards an agreed international plutonium storage regime, although agreement had yet to be reached on a number of crucial, non-proliferation issues. If those issues could be satisfactorily resolved, international plutonium storage could greatly facilitate bilateral co-operation by improving predictability.

78. Recent years had witnessed an intensive debate on the risks associated with the operation of nuclear installations and that debate had brought home the need to make every effort to deal with the problems of nuclear safety. The concept of nuclear safety should also embrace the other parts of the nuclear fuel cycle, including nuclear waste and mill tailings after mining operations. That was a problem to be handled mainly by individual Governments, but it might also have far-reaching international implications. A serious accident in a reactor close to a State border could also have grave consequences for the health and environment of the neighbouring countries. Moreover, experience had shown that the political ramifications of a reactor accident in one country could extend to many other countries. A solution to the problems of nuclear safety would, therefore, require close international co-operation.

79. Sweden would lend its full support to all efforts to further the cause of nuclear safety. In particular, his delegation would welcome efforts to develop sets of minimum criteria for the safe operation of nuclear facilities. The Nuclear Safety Standards (NUSS) programme should be continued until a comprehensive set of safety guides and codes had been established for the whole nuclear field, and those documents should, perhaps, be considered as more than recommendations. He hoped that the International Conference on Current Nuclear Power Plant Safety Issues to be held in Stockholm in October 1980 would be a milestone in the path of common efforts to ensure the safety of nuclear power.

80. In recent years, the Agency's budget and programme procedures had shown a marked improvement, inter alia through the introduction of indicative planning figures for voluntary contributions to the Agency's technical assistance programme. The planning of technical assistance, both by the Member States and by the Secretariat, should be greatly facilitated as a result. His Government had pledged its share of the 1981 voluntary contribution target, namely US $172 900. His delegation was of the opinion that technical assistance from the Agency should be increasingly provided through UNDP. Technical assistance would thus undergo UNDP country programming and be tested in a wider context.

81. The Agency deserved credit for presenting a zero-growth budget. Most Member States were obliged to exercise severe budgetary restraint at home, and the Agency might do well to plan for budgetary prudence and restraint for several years to come. Against that background, he wished to appeal to the Director General and his staff to make renewed efforts to promote cost-effectiveness and to take a long, hard look at programmes in order to establish realistic priorities. There might also be room for additional savings in administration and overhead costs. These savings had to be made in order to protect the most important programmes of the Agency, namely safeguards, nuclear safety and technical assistance.

82. In conclusion, he wished to reaffirm his country's trust in and support for the Agency. The staff had earned an excellent reputation for professionalism and efficiency. Under the able leadership of their Director General, they had helped to set a record for the Agency that was second to none among multilateral institutions.

83. Mr. ALLOTEY (Ghana) said that two points in the Director General's statement required comment: the first related to the perennial problem of technical assistance and its funding. Ghana had repeatedly argued in favour of funding technical assistance from assured and predictable sources. While welcoming the idea of projecting the technical assistance targets into the future, his Government was far from satisfied with the fact that the funding was largely voluntary. The promotional functions of the Agency were as important as the regulatory functions. Any discrimination in favour of one against the other should not be allowed to continue. It was hoped that the Agency would respond positively to the appeals of the developing countries for a change in that regard. It was regrettable that it had only been possible to implement one third of the projects in the 1979 programme that were technically sound due to lack of funds.

84. The second point related to the question of the zero-growth budget. He was sorry to see that many projects of special interest to the developing countries would be thereby affected.

85. Article VI of the Statute continued to engage the attention of the Board of Governors and the present General Conference. The need to amend Article VI.A.2 arose from the under-representation of Africa and of the Middle East and South Asia on the Board of Governors. The arguments for extra seats for those regions were fully in keeping with the principle of equitable geographical representation. It was hoped that a satisfactory solution would be found in the near future to that problem.

86. Regarding the NPT Review Conference, which had ended a short while before in Geneva, Ghana shared the increasing concern of countries of the Third World that

NPT should not be used to hamper the implementation of national nuclear power programmes by developing countries, and that the nuclear States should take the lead in stopping the stock-piling of nuclear weapons in order to remove the horrors of the nuclear threat to the world.

87. His country was distressed at the under-representation of the developing countries in the Agency's Secretariat. In the selection of staff, as well as in the choice of experts for assignments, many technically competent persons from the developing countries had often been sidestepped. That imbalance would have to be corrected.

88. As far as Ghana's programme for the peaceful uses of nuclear energy was concerned, the projects continued to receive the support of the Agency and various friendly countries. The programmes concerned covered studies in food preservation, plant breeding, soil fertility and plant nutrition, uranium prospecting, and elemental analysis based on X-ray fluorescence and neutron activation analysis.

89. With regard to contacts between the Ghana Nuclear Research Establishment and the developing countries of Africa and outside Africa, in July and August 1980 the Ghana Atomic Energy Commission had hosted a five-week regional training course on nuclear analytical methods and their application, jointly sponsored by the IAEA, UNDP and the Ghana Atomic Energy Commission, and attended by graduate participants from 15 countries in Africa and one country in the Caribbean.

90. Ghana fully supported the work of the International Centre for Theoretical Physics at Trieste, and hoped that the Agency would provide the Centre with more funds to enable it to carry on its good work for scientists in the developing countries.

91. Mr. O'SULLIVAN (Ireland) said that the past year had been a significant one for the Agency where non-proliferation and energy problems were concerned. The Agency had provided the framework in which INFCE had been able to produce fruitful and constructive results. The conclusion of the International Convention on the Physical Protection of Nuclear Materials had been another useful addition to the protective structures provided by the Agency. However, the failure of the Second NPT Review Conference to reach agreement and the insufficient commitment to reduce nuclear weapons arsenals were causes for concern. The nuclear energy path was neither the easiest nor the least expensive way to acquire nuclear weapons, but if it were to be employed that would do much to discredit

the concept of a purely peaceful use of nuclear energy. That was one reason why further efforts must be made to extend the scope of safeguards and to ensure that as far as possible sensitive nuclear facilities and materials were placed under international supervision and multinational ownership.

92. The energy problem had become a major preoccupation of all Governments. For the next half century nuclear energy would have an important function in providing the world with energy. In Ireland the nuclear option had been under extensive consideration for two years. The international recession, which had reduced national growth expectations, together with the long lead time before the project could come to fruition, had rendered the need for a nuclear power station less pressing; however, it was not an option which Ireland would wish to renounce unless alternative energy sources were available to fill the gap. Ireland, like other States, was anxious to see the Agency continue its work and devote its resources to clarifying and removing, where possible, some of the obstacles, imagined or real, to the adoption of nuclear power.

93. Nuclear power stations must form part of an integrated system, both with regard to the fuel cycle as a whole and with regard to the total available electricity and to the energy system. In both respects small countries suffered from some disadvantages. For a small country a nuclear power station was an expensive investment in imported capital equipment. Enrichment and reprocessing were services which a small country must procure from outside. No settled system of arrangements for the disposal of radioactive waste was available on the market, even though the technology was familiar. In the interest of non-proliferation, as well as of energy supply and economic management, Ireland endorsed the concept of regional and multinational nuclear services such as enrichment, reprocessing and waste disposal. In Europe enrichment centres already existed, and national reprocessing facilities were open to other nations. It seemed only right that those nations which had effectively created the nuclear industry and stood to benefit most from its development should provide the full range of ancillary services, including waste disposal. It was not realistic to expect that each small country, within which there might exist considerable public doubts about the merits of a nuclear programme, should have to take its own decisions on such sensitive matters as, for instance, the principle and the location of a nuclear waste disposal system because there was no regional or multinational system of that sort. A nuclear power programme in a small country also faced the problem

that the power network was scarcely large enough to accommodate a large base-load plant and interconnection with other energy systems was therefore necessary, which might entail considerable costs.

94. The Harrisburg disaster had made a considerable impression on public opinion, particularly in countries little familiar with nuclear power. It must be convincingly demonstrated that the risks of nuclear power, whether to human safety or to the economy, were not significant or could be systematically avoided by adopting particular precautions. It must further be shown that the only alternative to such a very slight risk was the certainty of a massive slump in living standards because alternative energy sources were lacking. It was not enough for countries or agencies involved in the promotion of the peaceful uses of nuclear energy simply to promote nuclear energy as such; they must also create the conditions in which the nuclear option was a viable, realistic and even popular one.

95. The progress made in completing safeguards agreements and the report of the inspectorate that no significant diversion of nuclear material had been detected were encouraging, although of course they would be more reassuring if the scope of safeguards were world-wide and fully comprehensive. Despite difficult economic circumstances, Ireland was again able to pledge to the Technical Assistance Fund its full share of US $20 800. His Government would also be able to host again, in Trinity College, Dublin, the Interregional Training Course on Nuclear Electronics. It attached great importance to the work of the Committee on Assurances of Supply, and hoped the Committee would also tackle the problems of countries which could not themselves take care of the whole fuel cycle, but had to rely on services from other States.

96. His Government also approved of the valuable work done by the Agency in the field of nuclear safety, in particular the publication of a series of guides on quality assurance and safety operation. One of the tasks of the Agency and all those engaged in producing nuclear energy was to satisfy the public that it was being kept informed and that only negligible risks were being accepted on its behalf. For that reason his Government welcomed the proposal of the Austrian delegation that close study should be given to the possible effects of nuclear energy on areas across national borders: bilateral or international co-operation on that problem should cover not only nuclear installations and activities near land frontiers, but also those on coastlines or in the sea near other States.

97. His Government also had an interest in procedures for the dumping of low-level radioactive waste at sea. If that activity was to continue with the acquiescence of coastal States, the system would have to be subjected to the same stringent international inspection controls as other phases of the fuel cycle. Countries with nuclear power programmes should devise methods of waste dumping which could be properly monitored and which allowed of appropriate corrective action if disturbing features appeared.

98. For many Member States the past year had been a difficult one financially, and the Agency's budgetary restraint was appreciated. The consensus reached by the Board of Governors on the question of the financing of technical assistance was also to be welcomed. Forward planning was clearly often necessary, and the introduction of indicative figures for voluntary technical assistance contributions in 1982 and 1983 would facilitate such planning.

99. The delays encountered before the acceptance of designated inspectors and the consequent financial losses to the Agency were a cause for concern. The Director General's proposal to utilize staff in the General Service category for certain routine inspection activities seemed both practical and economical, as was his suggestion that safeguards costs could be reduced and effectiveness increased if safeguards technology were incorporated into the design of nuclear plants.

100. The tasks facing the Agency in the 1980s would be formidable, but its past record showed that the IAEA was a most effective international body whose work was characterized by a special spirit of co-operation arising from its Members' common interest in the vital tasks entrusted to it. Given that spirit of co-operation the Agency should be capable of meeting the challenge of the future.

101. Mr. SHIM (Republic of Korea) said that nuclear energy was the most practical and the cheapest answer to Korea's steadily growing demand for energy, since it had no other energy sources. The comparative power generation cost between oil-fired and nuclear power plants of the 600-MW class was approximately in a 2-to-1 ratio.

102. Korea was therefore deeply concerned about the long-term assurance of nuclear fuel supplies and the fullest possible exchange of scientific and technological information.

103. The International Nuclear Fuel Cycle Evaluation had been a great challenge in solving fuel cycle problems related to nuclear power programmes. The INFCE had given rise to two projects: firstly, consultations to help develop a system

of international plutonium storage under IAEA auspices in accordance with Article XII.A.5 of the Statute and, secondly, a study on international spent fuel management.

104. In principle, he accepted the conclusions and agreed to their implementation, but pointed out that the long-term growth of nuclear power would eventually require more advanced reactor systems.

105. The best way of saving natural uranium resources was to introduce fast reactors as early as possible; the next best method was the use of heavy-water reactors or plutonium recycling. The current once-through nuclear fuel cycle was the least efficient option. Fast reactors and recycling, either individually or in combination, would constitute a major breakthrough in nuclear energy.

106. The Korean Government was therefore pleased that the INFCE had identified the reprocessing and fast-breeder deployments as essential in the effective utilization of uranium resources. It hoped to introduce the commercial fast breeder by the end of the century.

107. The risk of the proliferation of nuclear weapons was a matter of universal concern. Korea valued the efforts being made by the IAEA to secure safeguards, noted its implementation record with satisfaction and attached great importance to both national and international assurances to minimize the threat of nuclear weapons without jeopardizing energy supplies.

108. The Agency's safeguards were an essential condition for international nuclear co-operation. One of the most urgent and important tasks ahead was to establish, through international co-operation, the ways and means of harmonizing the peaceful uses of atomic energy with nuclear non-proliferation so that the development of nuclear energy did not lead to its use for destructive purposes. At the same time peaceful nuclear efforts should not be placed under unnecessary controls resulting from non-proliferation requirements. He hoped that his Government's observance of the Non-Proliferation Treaty would contribute to achieving the Treaty's universality. Wider accession to the Treaty would further promote international co-operation in the peaceful uses of nuclear energy and technology with due regard to the special needs of the developing countries.

109. He welcomed the fact that the Committee on Assurances of Supply would hold its first meeting the following Monday to deal with important post-INFCE issues such as the assurance of a continued supply of nuclear material and the willingness of the recipient countries to accept Agency safeguards.

110. However, it was estimated that within a few years, the nuclear power programme would face a serious spent-fuel storage problem due to the lack of reprocessing capability.

111. The growing importance of nuclear energy meant that multinational or national reprocessing centres were urgently needed. In view of the advantages offered by fuel cycle centres as regards non-proliferation, they would benefit developing countries as well as industrialized countries with small nuclear power programmes.

112. Korea had accordingly proposed at the Second NPT Review Conference that the Secretariat should continue the study for the establishment of such a centre in order to increase mutual trust.

113. Korea's electric power demand had increased at an average annual rate of over 20% during the last decade, and the nuclear share of total installed power capacity would grow steadily from the current 7% to over 35% and 60% by 1991 and 2000, respectively, regardless of future economic growth rates.

114. The success of the nuclear power programme depended on highly advanced design, engineering and manufacturing technologies, skilled engineering manpower, and enormous capital. Korea was therefore working hard to meet the challenges facing the nuclear power industry, including public acceptance, waste disposal and nuclear fuel cycle supply assurance.

115. The major emphasis of its nuclear power development was on the development of indigenous nuclear power technology, combining advanced technology with local research and development capabilities. This would ensure that domestic resources were utilized to give maximum benefit and also that the nuclear plants constructed were safe and reliable.

116. He was fully aware of the need for long-term manpower development, which was a prerequisite to the success of Korea's nuclear power programme.

117. With the collaboration of the Secretariat, a seminar on quality assurance for nuclear power plants was to be held in early November that year at the Korea Atomic Energy Research Institute. He believed that such an approach was one of the best ways of meeting the rapidly expanding manpower requirements of Korea's nuclear power programme.

118. Korea intended to intensify technical training for nuclear reactor safety and expand it to cover in-service inspection and other important areas. It therefore sought the technical support of the Secretariat. It was prepared to expand the course to accommodate the needs of Member States in its region, with a view to the possible development of a Regional Co-operative Agreement training centre in the future.

119. Korea would take an active part in Regional Co-operative Agreement projects, particularly the 5-year UNDP industrial project aimed at promoting radiation processing techniques.

120. It was also deeply involved in the isotope applications to hydrology and sedimentology project which would be holding a review meeting in the middle of October at the Korea Atomic Energy Research Institute. The Institute had established a tritium counting centre with the co-operation of the Australian Government and offered to make it available for regional use and training. The regional emergency net system could also come under the RCA programmes.

121. As regards the Agency's proposed budget for 1981 and the financing of technical assistance and safeguards, he felt it was reasonable to have a zero-growth budget during world-wide economic recession. However, the Agency would have to plan its programme carefully and selectively and channel assistance chiefly towards national safeguards systems. The latter should be regarded as the principal means of implementing the Agency's safeguards activities.

122. As regards the financing of technical assistance, he welcomed the fact that a formula for predicting future budget requirements was emerging, even though it fell far short of the figures requested. Since the predictability of the technical assistance budget was being established and in view of the important statutory function of the Agency in promoting the peaceful uses of atomic energy, the target figure for technical assistance should be fully met by voluntary contributions and the necessary procedures be initiated by the Board of Governors and the Director General.

123. Korea believed that the developing countries should be given greater opportunities to serve at higher-level posts in the Secretariat. The experiences and problems of the developing countries would thereby be better reflected in the implementation of the Agency's programmes and due regard given to the equitable geographical representation of the Member States.

124. Korea hoped to preserve and increase the essential role of nuclear power, but that would require greater public as well as international co-operation.

125. It also hoped that the Conference would produce useful results not out of political or commercial motivations but in a spirit of mutual co-operation and trust. The General Conference should make every effort to establish a scheme for the stable supply of nuclear fuel and fuel cycle services.

The meeting rose at 5.40 p.m.