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on Tuesday, 30 September 1986, at 3.15 p.m.President: Mr. CASTILLO CONTOUX (Guatemala)**CONTENTS**

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GENERAL DEBATE AND ANNUAL REPORT FOR 1985 (GC(XXX)/775 and Corr.1) (continued)

1. Mr. KELSO (Australia) noted that 1986 had been a significant year both for the Agency and for the peaceful uses of nuclear energy: it had seen new records of nuclear power production. At the same time, the Chernobyl accident had led - for the first time - to radiation-caused facilities directly associated with nuclear power and to a subsequent re-evaluation by many countries of the place of nuclear power in their energy plans. The Agency had reacted to the international situation following the Chernobyl accident in a way which had reflected credit on the organization, on its Director General and on its Secretariat. The actions taken since May which had culminated, the previous week, in the conclusion of the work of the first special session of the Agency's General Conference had led to major advances in international arrangements to deal with nuclear accidents with transboundary effects and in programmes to strengthen nuclear safety. The Australian delegation was confident that the positive spirit of co-operation established between States and the Secretariat in the field of nuclear safety would continue during implementation of the new programmes.

2. It was in that spirit that Australia would host in April 1988 in Sydney a major Agency conference on radiation protection and nuclear energy as a contribution to co-operation in the field of nuclear safety. Public opinion expected to be assured by the nuclear industry that nuclear activities were safe and that they would remain peaceful. Australia looked to the Agency as the principal international authority in a position to provide that assurance.

3. His delegation supported the expanded nuclear safety programme, although it considered that the Agency should, as was customary, ensure that that programme was subject to continuous effective financial and administrative scrutiny and that projects should be implemented only after thorough preparation and justification. It was also important that nuclear safety activities should not be implemented at the expense of the Agency's statutory and international legal responsibilities, particularly in the area of safeguards. The Agency's safeguards activities were crucial to the assurance flowing from non-proliferation commitments undertaken at international level, particularly under the Treaty on the Non-Proliferation of Nuclear Weapons (NPT).

4. The fact that a number of facilities in non-nuclear-weapon States, including many sensitive fuel cycle facilities, were still not under safeguards was inevitably a cause of concern to the whole international community. While such facilities continued to operate outside safeguards, the risk of the proliferation of nuclear weapons would continue. It should be stressed once again that facilities and indigenous technology dedicated to the peaceful uses of nuclear energy were in no way compromised by safeguards inspections. Furthermore, legally binding international non-proliferation commitments did not compromise or complicate the security of supply; on the contrary they enhanced it and provided the framework for stable, peaceful nuclear trade. The Committee on Assurances of Supply (CAS) was making only slow progress, but it was useful in that it served as a forum for dialogue on those important questions, which would also be discussed in 1987 during the United Nations Conference for the Promotion of International Co-operation in the Peaceful Uses of Nuclear Energy (UNCPICPUNE). Australia believed that in its examination of ways of improving co-operation in that area, the Conference should concentrate its efforts on the common ground that existed.

5. Australia believed that NPT played a key role in preventing the spread of nuclear weapons and that it was the main means of facilitating co-operation between States in the peaceful uses of nuclear energy. It welcomed the fact that, since the previous session of the General Conference, three further countries had become party to the treaty, namely the Democratic People's Republic of Korea, Colombia and Malawi, which had brought to 135 the number of States Party. The Third NPT Review Conference in 1985 had stressed that the treaty was essential for international peace and security and had made a number of practical recommendations which the Secretariat had followed up in 1986. Australia urged the Secretariat to continue that work in 1987; it was in the light of a recommendation made by the NPT Review Conference concerning international plutonium storage that Australia had requested, at the meetings of the Board of Governors in June, that the data base established by the expert group on international plutonium storage be updated. His delegation continued to think that further discussion and development of the concept of international plutonium storage was necessary.

6. After a major review of Australia's nuclear policy, a Nuclear Non-Proliferation (Safeguards) Bill was now before the Australian Parliament. That would strengthen the role of the national system of accounting and control of nuclear material, constituted as the Australian Safeguards Office. Also, enactment of the legislation would enable Australia to proceed to ratification of the Convention on the Physical Protection of Nuclear Material.

7. Legislation had also been introduced into Parliament aimed at modifying the arrangements governing nuclear science research and development, so as to place greater emphasis on the application of nuclear science and technology to community needs such as industry, agriculture and medicine; the Australian Atomic Energy Commission would then become the Australian Nuclear Science and Technology Organization. Those changes were expected to be implemented early in 1987.

8. With regard to radioactive waste management, research and development work on "Synroc" was continuing: that process had real potential as a second-generation form of waste management in view of its technical and processing advantages over other types of waste management and the option of storing spent fuel without reprocessing. Collaboration agreements for research into "Synroc" had been signed with Japan, the United Kingdom and Italy and tests on samples containing nuclear waste were being conducted in Japan and in the United Kingdom. In Australia, a non-radioactive pilot plant for demonstrating the feasibility of manufacturing full-size "Synroc" blocks was due to be commissioned early in 1987.

9. Like many of the Agency's Member States, Australia was facing severe economic conditions and had to adopt policies of financial stringency. Public expenditure had been cut in all areas, including overseas aid. That situation would inevitably have repercussions on some of Australia's contributions to the Agency in 1986/87, but it should not be interpreted as a diminution in interest on the part of his country in the Agency or of the support given to it. The Agency, like many of its Member States, had continued to operate under conditions of intense budgetary stringency, which could not be expected to change in the near future. Australia commended the way in which the Secretariat had, under those conditions, prepared the budget for 1987 using the well-established process of consultations with Member States. It also

welcomed the fact that the proposed budget was close to zero real growth. The Agency should continue to maintain the objective of establishing a zero-growth budget. Difficult decisions about priorities would have to be made.

10. Continued priority should be given to safeguards, so that the safeguards system could meet the challenges facing it and the Agency could carry out its legal responsibilities in that area. His delegation believed that even within the limits of overall zero real growth there was a case for increasing the resources allocated to safeguards.

11. Technical assistance also continued to be a key Agency activity, since it could provide considerable assistance to Member States in the implementation of their development programmes. The Agency continued to demonstrate its competence and efficiency in the transfer of nuclear technology.

12. In addition to the contributions which it had made to the Technical Assistance and Co-operation Fund (TACF), Australia had continued to make contributions under the Regional Co-operative Agreement (RCA) during the past year. It supported the extension of that agreement, which was due to expire in 1987. The RCA had demonstrably enhanced the use of nuclear techniques in the region and had become a key element in the implementation of the Agency's activities in Asia. Furthermore, it was an example to other regions of the way in which regional agreements could lead to positive results.

13. The provision of training was occupying an increasingly important place in Australia's relations with the Agency. During the past year, the Australian School of Nuclear Technology had organized, under the auspices of the Agency, four training courses attended by 67 participants from 13 countries in the region. Two covered the utilization of nuclear techniques (one in health-related environmental research and monitoring and the other in mineral processing) and the other two hospital radiopharmacy and national systems of accounting for and control of nuclear materials. Furthermore, Australia had continued to accept Agency fellows in public and private institutions. In addition, bilateral co-operation in the nuclear field was one of the features of Australia's relations with Indonesia and Malaysia.

14. In view of the continuing budgetary restraint, it was incumbent upon all participants in the technical assistance programme - donor countries, recipient countries and the Secretariat - to emphasize the effectiveness of delivery and the quality and relevance of the assistance provided. Programmes should be designed so as to meet real needs relevant to the Agency's functions and capabilities. After all, that was a more accurate measure of the value of the technical assistance programme than levels of available funding. In that respect his delegation welcomed the Director General's comment that in 1986 programme implementation under the Technical Assistance and Co-operation Fund (TACF) would place greater emphasis on implementation rates than on the amount of money spent.

15. Australia intended to continue - through co-operation with the Secretariat and in the Board of Governors - to participate actively in the Agency's work and to support its efforts to promote the peaceful and safe use of nuclear energy, while strengthening the barriers against its misuse; those were the twin crucial responsibilities of the Agency which explained why the Australian Government attached so much importance to the unique role of the Agency and its statutory functions. It was essential that the Agency's resources be deployed effectively in the carrying-out of those responsibilities.

16. It was important to bear in mind the common objectives of Member States and to ensure that no extraneous political issues or sectorial demands compromised the Agency's ability to meet its responsibilities. It was up to the Member States to create the conditions in which the Agency and the Secretariat could work towards the achievement of the common objectives with maximum efficiency. Australia expected the General Conference to act in a responsible way, keeping those objectives in view. In conclusion, his Government approved the Agency's Annual Report for 1985.

17. Mr. MURATA (Japan) observed that it was unfortunate that the most serious accident in the history of the peaceful uses of nuclear energy had coincided with the thirtieth anniversary of the founding of the Agency. That accident had not only left many victims and damaged property in the Soviet Union but had also had significant radiological repercussions in neighbouring

States. It had also been a great shock to all experts involved in the peaceful uses of nuclear energy. The accident had re-opened the debate on nuclear safety in States where it had been carried on at a less intense level following the Three Mile Island accident. Since the peaceful uses of nuclear energy had become frequent in many Member States, nuclear safety was not a problem limited to an individual State but an issue common to all. It was regrettable that the fear expressed on many occasions by Japan that an accident which occurred in one country might affect the nuclear programmes in other States had materialized. All States using nuclear energy for peaceful purposes should take the present opportunity to reaffirm their commitment to bear full responsibility for the safety of their national programmes, also with respect to other States. It was encouraging to note that everyone agreed that the Chernobyl accident should not jeopardize the peaceful utilization of nuclear energy - an agreement that had led to timely action within the framework of the Agency. Japan welcomed the results of the special session of the General Conference; the unanimously adopted final document had confirmed the usefulness of co-operation under the auspices of the Agency and the competence of the Agency itself.

18. Japan believed that international nuclear co-operation should go hand in hand with the development of nuclear programmes in Member States. The Agency was called upon to play a key role in such international co-operation. Japan therefore supported its activities in that area, particularly the establishment of safety standards and the exchange of information on incidents occurring at nuclear facilities. Also, it would support the Agency in carrying out the functions which it would have to carry out upon the entry into force of the two conventions adopted at the special session.

19. Reviewing the development of the peaceful uses of nuclear energy in Japan, he noted that they had been resumed in 1956 - the year of the founding of the Agency. Following the tragic events of the Second World War, Japan had decided to use nuclear energy exclusively for peaceful purposes. That commitment was stipulated in the Atomic Energy Law, and all nuclear activities had been carried out strictly in accordance with the provisions of that law. The Japanese Government had immediately prepared a comprehensive programme for

the peaceful uses of nuclear energy so as to fill the gap caused by the suspension, after the Second World War, of all nuclear-related activities. Research institutes had been established, research facilities constructed, personnel trained and so on, and Japan's programme could be regarded as a reflection of the great hopes which the Japanese public had placed in the peaceful uses of nuclear energy. A number of difficulties had been experienced in implementing the programme, but the initial objectives had been reached as a result of strong public support and the re-establishment of a strong national infrastructure, together with co-operation offered through bilateral and multilateral agreements.

20. In the 1960s, a nuclear power programme had been launched and the construction of nuclear power plants started. In the 1970s, issues such as nuclear safety, environmental protection and public acceptance had emerged; at the same time, during the first "oil shock" the Government had accelerated Japan's nuclear power programme. It was during the 1980s that the efforts made in the 1970s in the field of nuclear safety, environmental protection and public acceptance had begun to bear fruit. The peaceful uses of nuclear energy had made a considerable contribution to Japan's social and economic development, and at the same time the Japanese public had arrived at a greater awareness of that contribution.

21. Since the founding of the Agency, many nuclear power plants had been commissioned in a considerable number of Member States. The annual report for 1985 indicated that the total world installed nuclear capacity had reached 250 GW(e) at the end of 1985, by which time nuclear power plants were accounting for 15% of world electricity generation. Nuclear power was playing a major role in Japan; in some Member States, on the other hand, it had been decided that nuclear power should be phased out, postponed or abandoned. It could be said that the decade of the 1980s was seeing a diversification of opinions on nuclear power. In that connection his delegation wished to stress that the Agency was becoming increasingly recognised as one of the most important organizations providing scientific information valuable for Member States' decision-making.



22. Japan considered that nuclear power was one of the main alternatives to oil. At present the country was operating 33 nuclear power plants with a total capacity of 24.7 GW, which had accounted for 26.3% of the country's total electricity generation in 1985. Twelve plants with a capacity of 11.1 GW were under construction, and 5 plants with a capacity of 5.4 GW were planned. In 1985 the availability factor for Japan's nuclear power plants had been 76%, which confirmed that nuclear power was a reliable source of energy. Japan was not content with simply maintaining the good performance record of its nuclear power plants; close co-operation between Government and industry in improving still further the operational safety of the plants in service and developing advanced light-water reactors with better operational safety features and a high level of economic performance would continue.

23. It was also Japanese policy to aim at making maximum use of the potential energy of uranium; to that end, research and development work had been carried out on an advanced thermal reactor, a fast-breeder reactor and the technology of using plutonium in light-water reactors. Since the reliable operation of nuclear power plants had been virtually mastered, priority was being given to the establishment of a national nuclear fuel cycle and a national waste management system. With the support of the Japanese Government, companies were engaged in preparations for the construction of a commercial uranium enrichment plant, a large-scale reprocessing plant and a final storage facility for low-level radioactive wastes. Research and development work on high-level wastes was continuing as planned, and a project on the decommissioning of a major research reactor had been drawn up and would serve as an excellent opportunity to develop decommissioning technology, and to acquire experience for future use. Japan was continuing its nuclear fusion research and development programme, which should not only help to solve future energy problems but also, more generally, contribute to progress in science and technology. A facility known as JT-60 had been inaugurated in 1985 and was at present being upgraded with the installation of additional components. Japan hoped that the results of its experiments would be useful for the INTOR Workshop. In the field of accelerator applications, two projects - one on medical applications of heavy-particle accelerators and one on advanced industrial applications of accelerators - had been launched recently.

24. In promoting the peaceful uses of nuclear energy, non-proliferation measures had to be applied in order to prevent any diversion of nuclear materials for military purposes; also, it was necessary to ensure that those measures were applied in such a way as not to impede unnecessarily the peaceful uses of nuclear energy - it was a question of the co-existence of the peaceful uses of nuclear energy and nuclear non-proliferation. The regime established by the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) provided an important international framework for promoting the peaceful uses of nuclear energy and preventing nuclear proliferation. In order to enhance the universality of NPT, Japan had, on various occasions, urged countries which were constructing or operating unsafeguarded nuclear facilities but had not signed NPT to become party to the Treaty as soon as possible. Japan had also urged those countries to accept full-scope safeguards so as to provide an initial indication of their commitment and alleviate the concerns of the international community. Since the Third NPT Review Conference, the Democratic People's Republic of Korea had become party to NPT and the Socialist People's Republic of Albania had accepted the application of full-scope safeguards; those were small but significant advances. For the NPT regime to be more effective, there needed to be less inequality in the treatment of nuclear-weapon States and non-nuclear-weapon States. Japan had therefore urged all nuclear-weapon States - whether or not they were parties to NPT - to submit their peaceful nuclear facilities to Agency safeguards. Recalling that, at the previous General Conference session, the delegate of China had announced his country's willingness to accept Agency safeguards and noting that Chinese and Agency officials had in August held a meeting in preparation for the negotiation of a safeguards agreement between China and the Agency, he said that Japan welcomed the co-operation between the Chinese Government and the Agency with a view to concluding a safeguards agreement. Japan hoped that all the peaceful nuclear facilities in nuclear-weapon States would eventually be placed under Agency safeguards.

25. The Agency's safeguards system had continued to operate effectively in 1985. It was essential that that system should keep up with progress achieved in the peaceful uses of nuclear energy - in other words, with the increases in the number and variety of facilities. In the implementation of Agency

safeguards, due account should be taken of national systems of accounting and control, progress in safeguards techniques, improvements in safeguards approaches and evaluation methods, and the need for cost-effectiveness. Japan hoped that the work of the Standing Advisory Group on Safeguards Implementation (SAGSI) would soon result in the establishment of new safeguards approaches, appropriate to national systems of accounting for and control of nuclear material and the characteristics of national nuclear fuel cycles. Japan was co-operating with the Agency in various ways in order to facilitate safeguards implementation and to improve its effectiveness and efficiency. In addition, it would pay a cash contribution to support the development of new safeguards approaches in large reprocessing plants, where the application of safeguards was particularly important.

26. Since it had benefited from bilateral co-operation and co-operation with international organizations to reach its present status in the peaceful uses of nuclear energy, Japan had in return undertaken to offer its assistance and co-operation to countries which were just starting out on that road. Japan had paid its full share of voluntary contributions to the Technical Assistance and Co-operation Fund (TACF). It had also made contributions in support of RCA projects. Furthermore, it had offered expert services, accepted fellows, organized training courses and donated equipment. It intended to increase those co-operation activities as much as possible, financial circumstances permitting.

27. Japan welcomed the fact that various RCA projects had achieved their purpose through the active participation of the parties to that agreement. It believed that the agreement, which provided a general framework for co-operation, should be revised in order to streamline project implementation. Fourteen years had elapsed since the entry into force of the agreement, and RCA activities had developed considerably since then.

28. The Agency's draft budget for 1987 envisaged an increase of 2.2%, including the expanded nuclear safety programme. Japan had joined the consensus which had emerged in the Board of Governors in June on the additional budget for the expanded nuclear safety programme, thereby respecting the wishes of many Member States. While recognising that the

Agency was doing useful work, Japan believed that the Agency's budget should continue to be strictly controlled and that budgetary increases should be minimal, since the financial situation of Member States remained difficult. The Secretariat should therefore continue to exercise care in the allocation of budgetary resources, in organization and in staffing so that the Agency's programme could be implemented to the maximum extent using the limited resources available.

29. The Agency's role in the promotion of the peaceful uses of nuclear energy had grown year by year. Many technical questions remained to be solved in that area, but all knew that the Agency would do everything possible to solve them with its available resources. The success of the measures taken after the Chernobyl accident could be attributed to the spirit of co-operation prevailing in the Agency. His delegation was convinced that that spirit was the factor which would enable the Agency to undertake the difficult task assigned to it and that that spirit should be further developed.

30. Mr. LE BA CAP (Viet Nam) said that it was encouraging to note that the Agency was playing an ever more important role in the peaceful uses of nuclear energy, human health and prosperity throughout the world. During the year that had just elapsed it had secured substantial results, particularly in the fields of co-operation, assistance and nuclear safety, and had met the immediate and legitimate needs of Member States conducting programmes for the peaceful uses of nuclear energy.

31. All the developing countries were seeking to increase their technical knowledge with a view to ensuring their economic development and raising the standard of living of their populations, and in that context they were interested in the application of nuclear science to the two eminently important areas of agriculture and medicine. That was why the strengthening of technical co-operation with developing Member States should remain the Agency's principal objective, in accordance with its Statute. However, although the Agency's technical co-operation was vital, it was essential that the countries benefiting from it should show initiative in the use of the help they received from outside.

32. Viet Nam was satisfied at the results of the special session of the General Conference devoted to nuclear safety. The Soviet Union which, 30 years previously, had inaugurated the era of the peaceful uses of nuclear energy, had shown a sense of responsibility in the case of Chernobyl by applying all the means at its disposal to cope with the emergency situation and to reduce the consequences of the accident to a minimum, both within and outside the country. The statement by the General Secretary of the USSR Communist Party Central Committee on 14 May 1986 had contributed substantially to strengthening international co-operation in nuclear safety and to the drafting of the two international conventions adopted at the special session.

33. Viet Nam was at the start of its programme for the peaceful utilization of nuclear energy. It attached particular importance on the one hand to the training of specialists and on the other hand to the application of nuclear science in agriculture, medicine and biology. It wished sincerely to thank the Agency and friendly countries for the assistance they had afforded it in several of those areas, and also the Agency's experts for the high sense of responsibility which they had manifested.

34. Viet Nam had taken an important decision in adhering to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), and in 1981 had signed a safeguards agreement relating to the 550 kW Dalat research reactor.

35. The peoples of the world longed for peace, national independence and economic development. The struggle against the warmongering and highly reactionary forces of the modern era had the essential purpose of preserving peace and international security, reinforcing friendship and co-operation between peoples, encouraging dialogue and détente, and promoting the peaceful co-existence of countries with differing social systems.

36. Viet Nam unreservedly supported the peaceful initiatives undertaken by the Soviet Union and by the six Heads of State or Government who had met at New Delhi and Mexico City, and also by other countries in connection with disarmament, particularly nuclear disarmament. The decision by the Soviet Union to extend its unilateral moratorium on nuclear tests was courageous and realistic: it had the aim of putting an end to the armaments race and of saving mankind from the catastrophe of a nuclear war.

37. The foreign policy of Viet Nam was a policy of peace and friendship. Viet Nam supported the proposal to transform South Asia and the Pacific into an area of peace, friendship, equality and co-operation. It was more than ever important to pursue the dialogue, to establish a framework for peaceful co-existence in South East Asia, and to ban all external aggression, intervention and threat in the region. It was in that spirit that Viet Nam was prepared to co-operate with other States in the region and with all interested countries, and that it gave its unqualified support to the proposal to establish a nuclear-free zone in South East Asia.

38. Mr. KOLYCHAN (Byelorussian Soviet Socialist Republic) observed that the decisions taken at the special session of the General Conference and the two conventions signed by more than 50 countries constituted a real basis for deepening co-operation between States and for strengthening the Agency's role in the establishment of an international regime of safe development of nuclear power, the specific programme for which had been proposed by the Soviet Union.

39. Numerous statements made at the special and regular sessions of the General Conference had been marked by the search for a systematic and overall approach to nuclear affairs. Nuclear and radiological safety, the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), the physical protection of nuclear material, the prevention of attacks and acts of terrorism against nuclear installations, those were the essential aspects of the problem of safety, which arose alongside that of mastering the threatening force of the atom. It was, nevertheless, impossible to guarantee real safety for all States and for all peoples without the complete abolition of nuclear weapons and without putting an end to nuclear tests and to the preparations for atomic war. The Soviet Union had therefore proposed measures progressively to abolish all nuclear weapons in the coming 15 years. The realities of the nuclear and space age were stark and simple: civilization would not survive an atomic war. The most advanced technical systems could be affected by unforeseen and catastrophic incidents, as witness the tragedy of Challenger and the accident at Chernobyl. There was only one way to preserve peace and life on earth, namely the abolition of weapons of mass destruction. That was the most important task facing all States, all social movements and all international organizations.

40. The Byelorussian delegation noted with satisfaction that the Agency's main programmes were being carried out according to plan, and it approved the annual report and the Agency's accounts for 1985. Regarding the draft programme and budget for 1987 and 1988, the budgetary restrictions were reasonable, the interests of Member States and of the international community were on the whole respected, and the balanced implementation of projects and the establishment of priorities were ensured. The expanded nuclear safety programme, some features of which had already been put into effect, reflected the complexity of evolving specific recommendations concerning, inter alia, increased operational reliability of power plants, the improvement of safety systems, accident-prevention measures, the solution to the problem of radioactive wastes, and the unification of safety and radiation protection standards. The Agency's long-term programme in those fields should take account, to a very great extent, of the proposals put forward at the special session of the General Conference.

41. He wished to stress the importance of close international co-operation, under the Agency's auspices, in the development of a new generation of power reactors and nuclear power plants taking account of the present state of knowledge, of the practical experience accumulated throughout the world, and above all of present safety requirements. With reference to the search for new solutions to numerous aspects of the nuclear safety problem, he was in favour of the broadening of international co-operation and the intensification of research on fusion, especially in connection with the INTOR project.

42. Particular attention should also be given to NPT and the Agency's safeguards system. Improvements had been wrought in implementing the safeguards programme and in the efficiency and reliability of inspection results, the credibility of the safeguards system had been strengthened and the staff engaged on study of the technical problems and the development of inspection procedures was becoming ever more highly skilled. The increased computerization and standardization of activities and the development of computer resources to support the work of inspectors were positive developments. Still more facilities were necessary for increasing the effectiveness of inspections.

43. The modifications and additions made to INIS merited approval, particularly in connection with the uses of low-level heat, the improvement of reactor technology, fast-breeder reactors and high-temperature gas-cooled reactors.

44. Regarding the Agency's technical assistance activities, it was possible to observe steady progress in planning and efficiency. Embracing practically all the aspects of the peaceful uses of nuclear energy, those activities had the ultimate aim of establishing a nuclear infrastructure and of training highly qualified technical and professional staff in the developing countries. The Agency had available ever larger financial and technical resources for carrying out that vital task. The volume of voluntary contributions to the Technical Assistance and Co-operation Fund (TACF) should increase by 12% per year. Resources emanating from the Regular Budget were also on the increase. While the unused balances had greatly decreased, certain problems nevertheless remained unsolved. The procedures for financing technical assistance were fully satisfactory and should not be changed. The Byelorussian delegation approved the indicative planning figure of \$34 million fixed for the TACF in 1987. Byelorussia's voluntary contribution would be increased to the equivalent in national currency of \$115 600.

45. Byelorussia was using nuclear energy in agriculture, industry and scientific and medical research. The results of some of that research and the experience acquired could be useful for the Agency's work, and his country was prepared to consider co-operation in that direction. Byelorussia intended to make greater use of nuclear energy for electricity and heat generation. Thus work was in progress on the construction near Minsk of a nuclear power plant equipped with two pressurized-water-moderated-and-cooled reactors having a total output of almost 6000 MW(th).

46. In conclusion he wished to thank the Director General and the Secretariat for their effective and fruitful work in pursuit of the development of international co-operation in the peaceful and safe uses of nuclear energy and in the non-proliferation of nuclear weapons.

47. Mr. GIGNAC (Canada) said that, without dwelling on the concatenation of events since the Chernobyl accident, he wished to stress three positive aspects of that tragic occurrence. First, the international



community had shown itself capable of acting quickly and of effectively deploying its resources to cope with the situation, as was shown by the very rapid preparation of the two conventions adopted at the special session, and of which Canada was also a signatory. Second, Governments had shown that they had the political will to pool their experience in order to improve nuclear safety. Finally, the events in question had drawn attention to those features of the Agency's programmes concerned with safety. Canada intended to collaborate in the expanded nuclear safety programme.

48. Recognizing the Agency's nuclear safety objectives, the reaction of the international community had been admirable, but that should not eclipse the Agency's other important activities in the peaceful uses of nuclear energy, namely safeguards and technical assistance and co-operation. The Canadian delegation trusted that Governments, having become more conscious of nuclear safety and of its importance for international co-operation, would not thereby forget those two other areas of Agency activity. The events of 1986 had afforded Member States the opportunity of reaffirming their basic goal: the safe and efficient use of nuclear energy exclusively for peaceful purposes. Those events had also highlighted the Agency's essential role in co-ordinating and organizing the relevant activities at international level.

49. Canada remained committed to the development and utilization of nuclear energy. Its national programme contained significant elements which might also serve the needs of developing countries. Within the Canadian nuclear power programme, the province of Ontario had recently decided to continue construction of its 3400 MW generating station at Darlington. That plant would bring the installed nuclear capacity to 15 000 MW by 1992. The reactors used were of course of the CANDU type, which, according to a recent study, was among the best in the world as regards performance and efficiency. Canada now had available a CANDU reactor of 300 MW. That reactor, which combined the well-known advantages of the CANDU 600 with several new features, met all the Agency's reliability criteria. It would generate power at the same price as the CANDU 600, but would cost half as much and would be twice as fast to build, which should render it particularly attractive for countries with small grid systems.

50. Canadian research establishments remained extremely active, particularly as regards studies on the environment, materials, fundamental physics and the effects of radiation. The tandem accelerator superconducting cyclotron at Chalk River placed the Canadian scientific community in the vanguard of research on heavy ions. Canada continued to develop and market its MAPLE research reactor concept. That highly flexible reactor type could be adapted to the requirements of the developing countries, whether for research, training or isotope production.

51. On the world nuclear scene, industrial irradiation equipment and medical therapy equipment using cobalt-60 continued to be a growing factor. Canada intended to remain an important supplier of the rapidly expanding world market for preservation of foodstuffs by irradiation. It was at present constructing an irradiation centre under a collaboration scheme between Atomic Energy of Canada Limited (AECL) and the Institut Armand Frappier at Montreal. That was simultaneously a demonstration facility and a research centre, of which the international community might take advantage for purposes of training and process development. In 1988 the centre would host an Agency conference on food irradiation. In the medical field, a new process developed in Canada was now in use for producing iodine-123, an isotope of particular diagnostic importance.

52. AECL was responsible for the national fusion programme, in co-operation with Hydro-Ontario (studies on fusion fuels technology) and Hydro-Quebec (tokamak programme). Canada was examining the possibilities of international and bilateral collaboration. The research company of AECL was also conducting major programmes in reactor safety. Canada had just developed a series of small reactors known as local energy systems, which were based on the inherently safe SLOWPOKE design and would make it possible to bring electricity and heat to remote areas which had no access to the power grid. A demonstration unit was under construction.

53. Turning to the question of irradiated fuel management, he said that Canada's research programme bore principally on evaluating the concept of burial in the plutonic rock of the Canadian Shield, which was a highly stable geological zone. Canada had growing confidence in that technique as a means

of protecting the public and the environment. Irradiated fuel disposal was not an urgent problem in Canada, with the result that the choice of burial sites would not be made before the technique had been thoroughly studied.

54. Canada was not only among the leading exponents of the peaceful uses of nuclear energy, but also had an annual uranium production capacity which would be maintained at about 12 000 tonnes until the end of the present decade. The working of several deposits recently discovered in the Athabasca basin in Saskatchewan could yield a production of about 16 000 tonnes per year by the end of the 1990s.

55. Safeguards were a sphere of activity of the highest importance, and he wished to congratulate the Director General, the Deputy Director General for Safeguards and the Secretariat for their efforts further to strengthen the safeguards programme. Canada remained a firm champion of nuclear non-proliferation. In that connection, and particularly regarding the Agency's safeguards agreement with Albania, he believed that extreme prudence should be exercised when considering alternatives to NPT. For its part, Canada would continue to urge all States to accede to that treaty.

56. The Safeguards Implementation Report (SIR) for 1985, discussed by the Board of Governors in June 1986, showed that several measures taken by the Director General and the Deputy Director General for Safeguards were yielding good results. In particular, the development of long-term criteria for the implementation and subsequent evaluation of Agency safeguards was a matter which had been in abeyance for many years. It was clear that the systematic and comprehensive approach now applied was well directed and entirely appropriate. The Canadian Government was most satisfied with that new initiative, because it was convinced that, in order to ensure the ongoing improvement of the Agency's safeguards system, it was essential to issue as soon as possible consistent, long-term implementation criteria for the guidance of Member States and the Secretariat. Agency safeguards would enable Member States to supply each other with credible evidence that they were meeting their non-proliferation commitments. There was no other internationally acceptable solution.

57. Canada was a Member State which, in addition to its Regular Budget and voluntary contributions, made other contributions to the Agency's funds. The Canadian safeguards support programme was one of those supplementary contributions. Under that programme, two significant milestones had just been reached in improving safeguards techniques. First, an eight-camera closed-circuit television system had been supplied to the Agency. Laboratory tests on the system had been extremely satisfactory, and the Agency was purchasing several of the units for field trials. Secondly, the first field trial of an underwater safeguards containment and sealing system for spent fuel had recently been started by the Agency, with the assistance of Canadian authorities and a nuclear power plant operator. Such a sealing system, in combination with surveillance of the cooling pond, should greatly enhance confidence in the Agency's conclusions regarding spent fuel.

58. Canada had a special interest in the technical assistance and co-operation programme. Thanks to its broad expertise and experience in the applications of nuclear energy, Canada was in a position of special advantage to contribute to that programme. The Agency's success in that difficult area was praiseworthy, but his Government nevertheless believed that the value of the programme could be further enhanced. Thus, the Agency should encourage the involvement of a larger number of women in its development programmes, and plan an increase in its technical assistance and co-operation activities in Africa, in the light of the key development issues identified by the special session of the United Nations General Assembly on Africa. The administration of such a large and complex programme was not an easy task, and Canada appreciated the Agency's efforts to effect a systematic evaluation of implementation. It was to be hoped that the technical co-operation seminar held during the current session would yield results that would still further enhance the effectiveness of implementation of the programme.

59. Efficiency was a basic requirement in realizing the whole of the Agency's programme. The Canadian Government remained firmly in favour of zero real growth. Recognizing the importance of an expanded nuclear safety programme, Canada had joined the consensus of Board Members regarding the budget ceiling for 1987, and it was co-operating with other Member States and

with the Secretariat in defining a programme for that year and later. However, efforts to identify priorities must be continued, so that the most effective programme could be achieved with the minimum cost.

60. In conclusion, he recalled that the Canadian Government, like others, held the view that there was an indissoluble link between enlarging the contribution of nuclear energy to human well-being and the need to ensure that that energy was used for peaceful purposes only. Canada rejected the notion that those two elements could be separated; they were in fact two sides of the same coin. It was in that spirit of commitment to the peaceful uses of nuclear energy that Canada supported and would continue to support the Agency.

61. Mr. FLORES PINEDO (Peru) said that in spite of serious economic and social problems which had their roots in the injustice rampant in the present international order, particularly as regards commercial exchanges, Peru was continuing its efforts to derive benefit from the peaceful uses of nuclear energy for its own development. That policy was served by a plan which should make it possible rapidly to achieve with the slender resources available the specific objective which had been set.

62. Peru's medium-term nuclear plan, defined in 1976 with the direct assistance of UNDP, was unequivocal, clear and well suited to the aim pursued. Its first phase, carried out between 1977 and 1983, had made it possible to establish an infrastructure on which subsequent development could be based. At present, Peru already had available a substantial number of operational facilities; three biology and medicine centres, an advanced nuclear research centre, a zero-power training reactor built and commissioned in 1978 with the assistance of the Argentine National Atomic Energy Commission, a computer centre, a 14 MeV neutron accelerator associated with a gamma spectrometry laboratory, and a computerized nuclear physics laboratory.

63. Among those facilities there stood out, thanks to its importance and size, the Nuclear Research Centre of Peru - costing a total of \$110 million and due to go into service in 1987 - with which were associated an isotope production plant and a national radiation protection centre. The latter was to monitor the observance of optimum safety levels, fixed in accordance with Agency standards. It would also supervise the proper use of facilities and

would assist the Peruvian Government to protect the population against the hazards of ionizing radiations. A national sampling network to monitor the environment would be established for that purpose.

64. Regarding personnel training, improvements had been made during the preceding ten years in the training and advanced training of specialists, taking advantage of the fellowship programmes operated by the Agency and other international organizations, and of the programmes set up under bilateral agreements. In 1985, some 30 Peruvian specialists had benefited from Agency training: they were now contributing to implementing the programmes of the Peruvian Nuclear Energy Institute and of other national bodies.

65. Believing that the establishment of infrastructures was sufficiently advanced to permit transition to a phase of much more concrete achievement, the Peruvian Government was intending to encourage the growth in the number of studies on the biomedical applications of nuclear energy, which in 1985 had already reached the record figure of 8000, by putting into service two additional pilot centres in the towns of Trujillo and Arequipa.

66. In agriculture, it was the application of nuclear techniques in barley growing which had given the best results, yielding mutants of the Zapata variety which were both early and highly resistant to disease. Wheat and beans were also the subject of thorough studies whose purpose was to develop varieties much more resistant both to disease and to the frosts of the Andean zone. In the sphere of animal nutrition, an evaluation had been made of the reasons for the low reproduction rate of livestock grazing on high-lying land poor in minerals, as a result of which it had been possible to achieve gains of up to 35% in terms of animal weight and up to 20% in terms of reproduction rate. In order directly to support that programme, an institute specializing in the use of nuclear techniques in agriculture was being established.

67. The first phase of the project to eradicate Mediterranean fruit fly had been carried out thanks to a generous contribution of \$1.5 million by the Italian Government. That had made it possible considerably to reduce the damage caused by the insect to fruit crops in areas near the Chilean frontier. In view of the importance of continuing that project, Peru was endeavouring to obtain the assistance, which it deemed extremely valuable, of the European Economic Community.

68. In the field of mining, research carried out over a period of more than a decade under the auspices of the Agency and of UNDP had led to the identification on the altiplano of the area representing the greatest uranium potential. A feasibility study for an investment project was in progress; it concerned the evaluation of reserves (which were of the order of 5000 to 10 000 tonnes) and should result in the launching of a project to mine and process ore at low cost.

69. Important work was envisaged in the industrial sector: Peru already had available experts in non-destructive testing techniques, which were essential for quality control in national industry. It was also intended to establish, with Agency assistance, a multipurpose irradiation facility which would serve for launching a joint programme on radiation preservation of foodstuffs and radiosterilization of medical supplies.

70. All those achievements revealed two very important facts: first, the firm will of the Government and of Peruvian technicians to continue putting forth every effort to achieve national targets in the peaceful uses of atomic energy; secondly, the advantages of international technical co-operation, which should be continued because it usefully supplemented national efforts in the scientific and technical fields.

71. The Peruvian Government wished to express its deep gratitude to the Agency, and to the Governments of the Federal Republic of Germany, the United States of America, Finland and Italy, whose extrabudgetary contributions had made possible the implementation of extremely important technical assistance projects in Peru. It also extended particular thanks to the Argentine Government for the very generous assistance which it had provided. In view of the promising results of the first special session of the General Conference, Peru had no doubt that countries with nuclear programmes and the Agency would be prepared to offer their help in the field of nuclear safety, pending the putting into service of Peru's Nuclear Research Centre. Their co-operation would clearly reflect the will of the international community to derive as much benefit as possible from nuclear energy, provided that the latter served only the welfare of mankind and was not a threat or a cause of destruction.

72. Mr. PANDEV (Bulgaria) noted with satisfaction that the special session of the General Conference had achieved its objectives by adopting two important conventions which laid the foundation for an international regime governing safe nuclear power development. That session had, in addition, confirmed the Agency's central role and the need for expanding co-operation in the future, within the framework of the Agency, in the safe use of nuclear energy. The safety of nuclear power was also linked to the physical protection of nuclear material. The entry into force of the Convention on the Physical Protection of Nuclear Material would contribute to carrying out further work in that area and to the prevention of terrorist acts. Bulgaria had ratified that convention and called upon all States which had not yet done so to follow suit as soon as possible.

73. Strengthening international co-operation in nuclear safety would be meaningless if the danger of a nuclear war was not averted. For that reason, it was necessary to halt the proliferation of nuclear weapons, to limit the nuclear arms race and to proceed to nuclear disarmament. His country therefore noted with satisfaction the greater effectiveness of the Agency's activities on safeguards and the strengthening of the non-proliferation regime. It supported the Agency's efforts to enhance the effectiveness of safeguards, in which area it was necessary to continue work on improvement and standardization of procedures, methods and documentation, on the development of new devices and instruments for monitoring and surveillance, and on computerization of the basic operations of collection, processing and analysis of safeguards data.

74. Bulgaria attached great importance to the Agency's nuclear safety activities. It therefore endorsed the special programme in that area in 1986 and would make an additional voluntary contribution for the purpose. It also supported the draft programme and budget for 1987, which, as a result of rational planning and the reduction of administrative and common services costs, ensured the necessary financing of the Agency's priority activities. While expanding its nuclear safety activities, the Agency should pay due attention to important areas such as safeguards, technical assistance and co-operation, nuclear power and the application of nuclear techniques. His



delegation approved in principle the supplementary nuclear safety programme for 1987 and the resources proposed for its financing, provided that those resources were allocated to priority tasks.

75. Bulgaria noted with satisfaction the strengthening and improvement of the Agency's technical assistance activities. It contributed regularly to the Technical Assistance and Co-operation Fund (TACF) and collaborated with the Agency in the efficient utilization of those resources. The voluntary nature of the contributions to that Fund should be maintained. His country approved the indicative planning figure for 1987 and undertook to contribute the equivalent in national currency of US \$54 400.

76. As regards the question of amendment of Article VI.A.2 of the Statute and of the revision of Article VI as a whole, his delegation considered that the present composition of the Board of Governors was well balanced and that the Board functioned efficiently. The objective conditions for an amendment had not yet arisen, as the discussions showed.

77. The development of Bulgaria's energy sector was based predominantly on the use of nuclear power. In 1985 the Kozloduy nuclear power station had produced more than 13 000 million kWh accounting for about 32% of the country's total electricity generation. Kozloduy, which was equipped with Soviet reactors, was the most reliable and stable energy source in the Bulgarian electricity system. Nevertheless a number of technical measures had been taken in 1986 to improve the safety of the power plant. Those related to centralized control of operation, seismic stability, fire-fighting systems and personnel training. The construction of the fifth and sixth units, each with a capacity of 1000 MW(th), was continuing at an accelerated rate. The first units of the second Bulgarian nuclear power station were under construction. It was also planned to build two Soviet-designed AST-500 reactors in order to meet the capital's heating requirements. Being interested in nuclear safety, Bulgaria was participating in the regional programme on safety calculations for nuclear power plants and, as the next step of participation in international collaboration, it had joined the Agency's programme on probabilistic risk assessment in 1986. It had been suggested to the Agency that a regional centre for methods of calculation for risk analysis be established in Bulgaria.

78. The Agency's safeguards had continued to be implemented successfully in 1986. Bulgaria's co-operation with the Agency was reflected in the successful completion of the contract on computerization of reports submitted to the Agency and in the conclusion of a contract on the testing of new safeguards equipment at the Kozloduy nuclear power station. His country was continuing to provide practical training facilities for new Agency inspectors who accompanied regular inspectors during their visits to its nuclear plants.

79. Bulgaria's progress in the development of nuclear electricity in all its aspects was due both to the effective mobilization of national forces and resources and to fruitful collaboration with countries of the socialist community, but first and foremost to bilateral co-operation with the Soviet Union and the technical assistance provided by it.

80. Apart from the development of nuclear power, Bulgaria attached special importance to the application of ionizing radiation and related techniques in the national economy. A national co-ordination programme on extending those applications for 1986-1990 had been launched. In addition to economic effects, it would have a considerable social effect in the area of health and environmental protection. The Agency's technical assistance would contribute to the implementation of that programme. By the end of the following year an irradiation facility for sterilization of medical supplies was expected to go into operation. It would provide the basis for developing advanced techniques in that sector and for substantially improving the quality of medical supplies. Furthermore, Bulgaria was participating in the technical assistance programme of the Agency, at whose request an irradiation facility had been delivered to Albania and two others were being made ready for supply to Zambia and Pakistan.

81. His Government considered co-operation with international organizations and especially the Agency to be of great importance. It had taken steps to enlarge and strengthen such co-operation, with a view, in particular, to the establishment under the Agency's auspices of an international regime for safe nuclear power development.

82. In conclusion, he expressed his appreciation of the fruitful work done in 1985 by the Director General, Mr. Blix, and the Secretariat, and hoped that

the role of the Agency as an international organization co-ordinating Member States' activities in the peaceful uses of atomic energy and as an important factor in consolidating the non-proliferation regime would be still further strengthened.

83. Mr. CASTILLO CONTOUX (Guatemala) said that his country was not expecting to use nuclear power in the foreseeable future, since it had other still undeveloped, energy sources. However, his Government fully supported nuclear applications, which contributed to the country's economic and social development. It had therefore given preference to techniques which could contribute to the improvement of health, and in that connection he had pleasure in stating that, with significant assistance from the Agency, a second nuclear medicine centre had been commissioned in August and that the X-ray fluorescence analysis laboratory was in full operation, providing services to the mining, petroleum and other industries and also carrying out research and teaching functions.

84. Being a country with a highly developed agriculture, Guatemala welcomed every effort which promoted the use of nuclear techniques in food and agriculture. Various working groups consisting of representatives from agricultural institutions in the public sector and from the National University were carrying out studies on crop improvement by induced mutation, on nitrogen fixation and on the radiation preservation of foodstuffs.

85. The use of nuclear techniques for the control of the Mediterranean fruit fly was contributing to the solution of a problem of great economic importance in that it caused the loss of large quantities of fruit, increased costs because of quarantining, and hindered the marketing of products in areas which were free from the pest. The Medfly Commission used, among others, the sterile-insect technique and had two production laboratories for the purpose. The first had a capacity of 120 million pupae per week and applied the production system developed in the Agency's laboratories; the second, which had recently been completed, was designed to produce 90 million pupae per week by the method developed in the laboratories of the United States Department of Agriculture. Thanks to the Medfly programme, 64% of Guatemalan territory was free from the pest. Under the Agency's programme of scientific visits, the

Medfly Commission had made its experience available to technicians from other countries, and Guatemala would continue to welcome technicians from institutions which considered its experience to be of value in developing their own programmes. He wished to point out that the Medfly programme had received financial and technical assistance from the Governments of the United States of America and of Mexico and valuable technical assistance from the Agency in the form of equipment, fellowships and expert services.

86. The Guatemalan Government attached great importance to the promulgation of the law on the control, use and application of radioisotopes and ionizing radiation. Those activities had been declared to be of public importance in view of their basic role in the country's economic and social development and also of the potential risks which they involved for the health of the population, property and the environment.

87. In spite of the difficult economic situation, the Ministry of Energy and Mines had accorded priority to the construction of the laboratories of the Directorate General of Nuclear Energy, not only because it was regarded as the counterpart to the Agency's valuable assistance but also because the Guatemalan authorities were convinced that nuclear techniques could contribute to improving the quality of life in the country. The facilities would comprise a secondary radiation protection and dosimetry laboratory, and laboratories for the application of nuclear techniques to agriculture, industry and health. The work was expected to be completed in the latter half of 1987.

88. Guatemala regarded regional co-operation as the appropriate mechanism for accelerating the progress of science and technology by improving the efficiency of utilization of physical and human resources. It therefore supported the co-ordinated research programmes, the regional project on non-destructive tests for Latin America and the Caribbean, and the Regional Co-operative Arrangements for the Promotion of Nuclear Science and Technology in Latin America (ARCAL).

89. His Government commended the Agency's safeguards activities, which contributed to ensuring the peaceful nature of nuclear activities. It also valued the Agency's technical assistance programme, which had significantly

promoted the transfer of technology to Guatemala; for that reason he hoped that the funds for technical assistance would be increased so that a greater number of sound projects could be financed. His Government expected to pay its full share of the Technical Assistance and Co-operation Fund (TACF), subject to the approval of its current budget by the Congress of the Republic, and wished to express its willingness to meet its commitments to the Agency. He was confident that the latter would be able to strike a balance between its nuclear safety and safeguards activities and its programmes on the promotion of nuclear techniques in the areas of health, food and agriculture, and industry, which should be continued and enlarged in order to help the developing countries.

90. Lastly, his Government expressed its full support for the Agency, to which it was grateful for the help it had received, and its gratitude to the donor countries for their spontaneous collaboration, to the Director General for his successful efforts and to the Secretariat staff whose dedication enabled them to carry the burden of the additional work resulting from the growth in the Agency's activities.

91. Mr. ALVES (Brazil) said that the oil crisis of the 1970s had made it imperative to launch programmes relating to alternative sources of energy with a view to reducing dependence on external sources of supply, and had given rise in some countries to an increase in the share of nuclear power in primary energy production. The accidents at Three Mile Island and, more recently, at Chernobyl had had a strongly negative effect on public acceptance of nuclear power. The information disseminated about those accidents, especially that on the long-term effects of radiation, had contributed to public concern and raised doubts about the real balance of the risks and benefits of nuclear power.

92. The economic situation in Brazil and the opposition to nuclear power after the most recent accident had led the Brazilian Government to make a detailed evaluation of its nuclear programme, taking into account the financial and economic changes adopted to reduce the inflation rate and the availability of raw material and technology as essential elements for the choice of an energy alternative.

93. In that regard, his Government had established a committee composed of representatives of the academic, scientific and industrial sectors, not directly involved in the Brazilian nuclear programme, which had been asked to make recommendations, taking into consideration the fact that, in spite of the scarcity of financial resources and its high hydroelectric potential, Brazil remained convinced that the peaceful uses of nuclear energy were an important factor for the future of its economy and for the well-being of its population. The committee's recommendations had given rise to a number of decisions.

94. The Brazilian nuclear programme would be maintained at an adequate level for mastering nuclear technology on an independent basis, in order to satisfy the electricity demand and to extend its applications to medicine, agriculture and industry. The development of the programme would be based on a careful balance, considering energy needs and the comparative costs of alternative sources of energy. Co-operation, particularly financial, with the Federal Republic of Germany in the peaceful uses of nuclear energy was to be maintained, account being taken of the modifications resulting from the new pace of implementation of the programme. The Government would support the research and development work carried out by the National Nuclear Energy Commission and by NUCLEBRAS, and the participation of Brazilian engineering, consulting, planning and construction enterprises.

95. The construction of the Angra-II and Angra-III nuclear power plants, which were to start operation in the mid-1990s, would be continued. However, the decision on the construction of a fourth nuclear power plant would be postponed until 1989, by which time the competent authorities should have a clearer idea of energy needs beyond 1995. The manufacture of heavy components would continue, according to the needs of the plants under construction, and new markets for such components would be explored in Brazil and other countries. Activities relating to the nuclear fuel cycle were to be carried on and would be progressively nationalized. In that connection it had been decided to relate the production of uranium concentrate in the industrial complex of Poços de Caldas to the needs of the nuclear power plants, to proceed with the technical and economic viability studies of known uranium deposits with a view to future decisions about their mining, to postpone the

construction of the demonstration plant for isotopic enrichment by the Becker process until other technological options could be compared with the first enrichment cascade now nearing completion, to defer the implementation of the spent fuel reprocessing project and, lastly, to develop an integrated programme of radioactive waste management and disposal, particularly with regard to the selection of disposal sites.

96. As regards human resources, it had been decided to promote greater participation by universities and technical centres in research and development programmes, to enlist more researchers in the study of scientific and technical questions related to the transfer and development of technology, and to give material support to universities and technical centres so as to enable them to re-equip their laboratories and to carry out research and development work in the area of basic nuclear science.

97. The success of the measures recently adopted in Brazil to promote nuclear energy depended, as in many countries, on regaining public confidence in the safety of nuclear installations. Brazil had always attached great importance to the initiatives taken by the Agency in the area of nuclear safety, as it had reaffirmed by signing the conventions on early notification and on assistance in the case of a nuclear accident or radiological emergency.

98. Less than 30% of the Agency's Member States had a nuclear power programme. The Agency's technical assistance programme was consequently dedicated mainly to the other peaceful uses of nuclear energy. Those uses, if properly promoted, could play an important role in public acceptance of nuclear energy. As a developing country, Brazil considered the Agency's technical assistance programme to be an important tool for its own development: that assistance had contributed to various Brazilian achievements, especially in radiation protection, dosimetry and nuclear safety. That was also the case, for example, with the Brazilian Amazon Project, the purpose of which was to study by means of isotope techniques the effects of changes in land use on ecology and climate.

99. He commended the Secretariat for the results obtained during the critical evaluation of equipment supply through the technical assistance programme, and supported the follow-up of that evaluation. As to fellowships,

Brazil had made every effort to respond to the requests channelled through the Agency. During the past year 26 fellowships had been awarded to candidates from other developing countries for training in various fields in Brazil. In 1986 Brazil had hosted or was to host a workshop on food irradiation, ARCAL's third planning and co-ordination meeting, the Seminar on Management Options for Low and Intermediate Radioactive Waste and the Seminar on Radiological Protection, Dosimetry and General Aspects Related to the Chernobyl Accident. Three interregional courses were also planned, on multichannel analysers and interfacing (ARCAL), on exploration drilling and ore reserve estimations for uranium deposits, and on in-country radiological dose assessment. Also, cost-free experts had been made available by Brazil under the Agency's technical assistance projects to other developing countries. The increasing requests for Brazilian experts reflected the fruitful results of that co-operation.

100. It was gratifying to note the expansion of regional co-operation within the framework of the Agency, which had taken the form of establishment of the institutional mechanisms of the expanded ARCAL programme. Brazil wished to reiterate its support for that programme, taking into consideration the recommendations approved at the most recent ARCAL meeting held in Rio de Janeiro. It was also satisfying to observe the support given, as donors, by States which were not members of ARCAL. He wished to congratulate the Director General on his continuous efforts to keep the technical assistance programme free from discriminatory practices and to increase the use of experts from developing countries in the Agency's projects. However, Brazil considered that the volume of equipment purchases in developing countries for Agency technical assistance projects continued to be too modest.

101. His Government reaffirmed its commitment to the peaceful uses of nuclear energy and supported the Agency's role in the area of safeguards. The mechanisms of the safeguards system were perfectly capable of assuring universal and non-discriminatory control and of contributing to the non-proliferation of nuclear weapons. In that connection it might be mentioned that the establishment of the Brazilian Safeguards Laboratory had now been completed with the assistance of the Agency. Apart from its routine activities, the safeguards laboratory, in co-operation with the Los Alamos



National Laboratory, had implemented two major projects, one on the measurement of fuel assemblies manufactured in Brazil and the other on the measurement of the first batch of irradiated fuel from the Angra-I nuclear power plant. The safeguards project being implemented in collaboration with the Federal Republic of Germany would soon enable the Brazilian national safeguards system to be fully harmonized with the Agency's system for measurements of nuclear material. Furthermore, the Brazilian Nuclear Energy Commission had offered to host a regional training course on safeguards accounting and control systems for Latin American countries.

102. Brazil's efforts in the field of co-operation had not been limited to the multilateral sector. In November 1985 the Presidents of Brazil and Argentina had signed a joint declaration expressing the willingness of the two countries to increase their co-operation in the peaceful uses of nuclear energy and to examine ways and means of contributing to the maintenance of peace in Latin America. Since then Brazil and Argentina had been holding technical meetings in order to translate into action their political will in that regard. The exchange of information on each other's programmes had made it possible to identify areas where such co-operation might be developed. The right to use nuclear energy for peace and development had thus been reaffirmed by the two Presidents, who had signed important economic and nuclear co-operation agreements.

103. In conclusion, he stressed his Government's commitment to the peaceful uses of nuclear energy and its determination to use that energy with enhanced safety in order to promote development for the benefit of its population.

104. Mr. van GORKOM (Netherlands), expressing his admiration for the rapid and efficient way in which the Director General and his colleagues had responded to the Chernobyl accident, said that the special session of the General Conference had been a remarkable and encouraging example of multi-lateral decision-making on vital urgent issues. It had proved the vitality of the international co-operation system. First, Member States had unanimously expressed their desire to strengthen international co-operation in the area of nuclear safety. Secondly, the first results of that co-operation had been obtained through the adoption and subsequent signing by 51 countries of

two international conventions. Finally, the special session had laid the foundations for establishing an effective system of co-operation in the area of nuclear safety. It was essential to continue along the path which had been opened, obeying the prevailing sense of urgency and the political momentum that had been built up.

105. A number of proposals for specific activities had been submitted at the special session. It had been decided that the Board of Governors would continue to examine those proposals with the participation of all interested Member States, which was essential since nuclear safety was of vital importance for all. That was why the Netherlands supported the Swedish proposal that the Board of Governors should establish an open-ended ad hoc committee on nuclear safety.

106. Two proposals which would be discussed by the Board had been submitted by the Netherlands. One was concerned with international nuclear civil liability, the other with the need to establish a more objective additional criterion for the early notification of a nuclear accident. The Netherlands naturally hoped that those two proposals would receive the support of the Board of Governors. With regard to the question of nuclear civil liability, the Netherlands welcomed the studies which had already been made by the Secretariat in collaboration with the Nuclear Energy Agency of OECD on the relationships between the two existing international conventions in that field. It would be a good idea for the Secretariat to embark on an even more ambitious task by studying the possibility of improving the present arrangements on a worldwide basis.

107. Although each State was responsible for the safety of its nuclear facilities, the safety of those facilities still remained of vital importance for other States. That combination of national responsibility and common interest in nuclear safety matters called for close international co-operation including the preparation of safety standards to be applied universally. In an open society like the Netherlands, the use of nuclear energy for peaceful purposes had always received the support of the general public. That was why the outstanding operational record of nuclear power plants in the Netherlands was of great importance.

108. The uranium enrichment facility at Almelo, operated jointly with the Federal Republic of Germany and the United Kingdom, was a unique case of international co-operation which gave the Netherlands a privileged position in the nuclear field. The Netherlands was also very well placed as far as other applications of nuclear energy were concerned, particularly the use of radioisotopes and food irradiation.

109. His Government, which had decided, with Parliamentary approval, to proceed with the construction of new nuclear power plants so as to ensure the country's long-term energy supply, would now have to reconsider its plans. No final answer could be given at the present stage regarding the construction of additional power plants, since the Netherlands would have to re-examine very carefully all aspects of safety as well as alternative means of energy production. The necessary studies would begin in the near future and decisions were expected in the first half of 1988. The Agency's work in the area of nuclear safety would naturally play an important role in those studies.

110. Chernobyl should not in any way distract attention from the positive effects of the use of nuclear energy in the short and in the long term. In that connection it was appropriate to mention nuclear fusion, which had long been a subject of discussion in the Agency. Moreover, the Heads of State of the United States and the Soviet Union had given new impetus to that question during their meeting in Geneva in 1985. As an active partner in the European Community's fusion programme, the Netherlands supported the Agency's activities promoting international co-operation in that area. That co-operation was justified by the enormous costs and the scale of research and development activities associated with that promising source of energy.

111. It was understandable that during the past year, in which attention had been focused on nuclear safety and improved co-operation between States in the event of an accident, the question of non-proliferation had been to some extent neglected. However, non-proliferation and safeguards continued to figure among the most important tasks of the Agency. The Third NPT Review Conference had been successful and had greatly strengthened the non-proliferation regime. However, much remained to be done to implement the results of the Conference. It was gratifying to note that the Agency's Annual

Report for 1985 showed that the efficiency of the Department of Safeguards had improved and the percentage of inspection goals achieved had increased. The statement that there had been no misuse of safeguarded nuclear material in 1985 was very important.

112. Non-proliferation remained a sensitive area which deserved constant attention, not only because it concerned weapons of mass destruction but also because there was an element of inherent instability in the co-existence of nuclear-weapon and non-nuclear-weapon States, which was complicated by the fact that some States were party to NPT and others were not, some were members of military alliances and some were non-aligned States. Under such conditions it was hardly surprising that the question of what non-proliferation commitments should be made in exchange for guarantees of long-term supply remained a stumbling block to progress in the Committee on Assurances of Supply (CAS). The formal commitment made by States that no misuse would be made of nuclear materials transferred for civil purposes ought to be an integral part of nuclear trade. Agency safeguards played a crucial role in the verification of those commitments. They were of benefit to all Member States and were their joint responsibility. The financing of safeguards should reflect that fundamental principle clearly and simply and should of course take into account the circumstance that less of a burden should be placed on Member States with limited financial resources. In view of the amounts involved it was, as the Director General had pointed out, deeply regrettable that it had not been possible to agree on the reasonable proposals made by the Chairman of the Board. If no consensus was reached in the near future on a new basis of calculation, the Netherlands delegation considered that an extension of two years for the present arrangements should be a maximum.

113. The United Nations Conference for the Promotion of International Co-operation in the Peaceful Uses of Nuclear Energy (UNCPICPUNE) was due to take place in the spring of 1987. In view of the outstanding role played by the Agency in such activities, particularly in the area of safeguards, any follow-up of the Conference should naturally be entrusted to the Agency. It would therefore not be necessary to create a new international mechanism or to hold any follow-up or review meetings.

114. The importance of the technical co-operation component of the Agency's activities could not be emphasized too strongly. The Netherlands had recently decided to finance an Agency project on the application of radioimmunoassay techniques to improve the reproduction rates and the health of African livestock. In the future, the Netherlands Ministry for Development Co-operation intended to consult the Agency regularly on ways of co-operating in technical assistance projects, particularly in the areas of agriculture, food and health. The new projects which would be proposed by the Agency should conform to the parameters applied by the Netherlands for assistance to developing countries, in other words to its sectorial programmes on rural and industrial development, training and research.

115. As the Netherlands Minister for Housing, Planning and the Environment had stated at the special session, it would be unfair to request the Director General to carry out additional work on nuclear safety without giving him the necessary resources to do so. However, it was essential to establish well-defined priorities. That was why the financing of those activities should not overshadow the fact that the Agency also needed resources to carry out equally important tasks in other areas. His Government had agreed to contribute to the additional expenditure for 1986. It supported the Board's recommendations for 1987 and 1988 and accepted that the principle of zero real growth should not apply to the budget for those two years.

116. The events which had followed Chernobyl and the Agency's remarkable capacity to act decisively in time of crisis as well as its achievements in other fields of activity had emphasized its importance as an international organization. The Agency, more than ever, needed the full support of all its Members. The latter should reject any attempt to politicize the organization by introducing questions which should be dealt with by the appropriate organs of the United Nations. They should defend the principle of universality and oppose any attempt to expel Member States and to deprive them of their rights on grounds inconsistent with the Statute. The Netherlands for its part would do all it could to safeguard the Agency's integrity.

117. Mr. SHASH (Egypt) said that the special session of the General Conference, which had examined measures to strengthen international co-operation in the area of nuclear safety, sanctioned the expansion of the

Agency's activities and resulted in the preparation of two international conventions and in technical discussions on the analysis of the Chernobyl accident, had emphasized the Agency's central role in international co-operation in the field of safety. That role had been carried out with remarkable competence and efficiency.

118. His delegation actively supported all those efforts and Egypt had been one of the first countries to sign the two conventions, believing that if one was to continue to develop the utilization of nuclear energy, particularly for electricity generation, it was essential to maintain the efforts made both nationally and internationally in the field of nuclear safety.

119. In that connection his delegation wished to reaffirm its support for the expanded Agency activities planned for 1987. It believed that the success of the work of the special session, the increase in the number of international commitments made in the area of nuclear safety as well as the increased role accorded to the Agency and to its programmes in that area, would considerably help to re-establish international public confidence in that source of energy which was essential for the economic and social development of various countries. For its part, Egypt had set up a special nuclear safety service within its nuclear energy regulatory body, which was at present preparing safety regulations based on the Agency standards and would be responsible for developing a technical and legal framework in the area of safety. The establishment of that service, which was benefiting from support provided by the Agency, members of the European Community and the United States of America, formed part of an overall strengthening of safety measures designed to ensure the optimum utilization of nuclear energy.

120. The United Nations Conference for the Promotion of International Co-operation in the Peaceful Uses of Nuclear Energy (UNGPICPUNE) would take place in a few months time. His delegation was convinced that the success of the special session of the Agency's General Conference would give new impetus to the work of that Conference, to the preparation of which the Agency had made an effective contribution. Egypt would participate actively in the work of the United Nations conference as well as in the implementation and follow-up of its recommendations.

121. His delegation hoped that the Committee on Assurances of Supply (CAS) would, at its next meetings, agree on the principles of international co-operation which would guarantee the security of supply within the non-proliferation framework. It noted with satisfaction that the Committee had been able to agree on a number of measures on the implementation of emergency and backup mechanisms as well as the revision of nuclear supply agreements. It considered that in order to develop the peaceful uses of nuclear energy it was essential that the supply of nuclear materials should be stable, equitable and non-discriminatory.

122. The Agency had set up a group of experts to study the mechanisms which would help developing countries to extend and finance their activities in the nuclear field. The relevant study, which was already well advanced, concentrated primarily on problems related to financing, the technical framework, the infrastructures and the size of electricity grids. The Agency had an important role to play in the area of financing since it was able to provide credit institutions with objective information on the technical and economic reliability of nuclear power programmes and thus to give considerable help to developing countries in obtaining the necessary credits and financial facilities. Furthermore, the Agency should intensify studies on the design of power reactors which would be safer and better adapted to the conditions and needs of developing countries.

123. In recent years, there had been a continuous increase in the resources allocated to the Agency's technical assistance programme, both from the Regular Budget and from the Technical Assistance and Co-operation Fund (TACF). That programme helped developing countries to take full advantage of the considerable potential of nuclear energy applications in agriculture, medicine, industry and research while at the same time strengthening international co-operation. Thus the programme of training in radiotherapy for cancer of the uterus, launched in Egypt in 1983 and which was supported by a contribution from the Italian Government, had made it possible to train not only many Egyptian specialists but also a number of Sudanese, Tanzanian and Kenyan specialists. Moreover, Egypt was playing an important role in regional technical co-operation in Africa and had contributed actively to the organization in 1985 and 1986 of a number of regional seminars on the

utilization of nuclear techniques, the monitoring of the reliability of nuclear medicine equipment, nuclear safety in developing countries and the ecological effects of nuclear energy.

124. The approval by the General Conference at its twenty-ninth regular session of an annual increase of 12% in the resources of the Technical Assistance and Co-operation Fund (TACF) in 1987, 1988 and 1989 was an essential step in order to meet the growing needs of developing countries, and should be accompanied by an increase in the implementation rate. Furthermore, it was necessary to redress to some extent the balance of the technical assistance programmes so as to give the African continent a fair share in accordance with the scale of its needs and its development requirements.

125. Egypt attached primary importance to the Agency's safeguards system and had always urged that it be strengthened and made more effective, in the belief that it was essential for creating a climate of confidence and for developing the peaceful uses of nuclear energy. However, there was one thing which caused grave concern to Egypt and to the international community: the nuclear activities of Israel and South Africa were not subject to Agency safeguards, and those two countries continued to disregard the decisions adopted on that subject by the General Conference and by the United Nations General Assembly. That situation was all the more alarming since those two countries, the nature of whose nuclear activities was well known, were co-operating closely, were not party to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and refused all international control of their nuclear activities. As long ago as 1974, Egypt had proposed the creation of a nuclear-free zone in the Middle East, and that proposal had been the subject of many resolutions adopted by the United Nations General Assembly, the last one without any objections on the part of Israel. In addition, Egypt had supported the proposal to make Africa a nuclear-free zone, since it believed that that measure would make it possible to counter the threat posed to the African continent by the racist and aggressive practices of the Pretoria régime. It also considered that the problem of the protection of nuclear installations was fundamental and invited the Agency to formulate international measures to prevent attacks against such installations.



126. The Agency was playing an essential role in the transfer of advanced technology. All States should therefore contribute to its development without applying the principle of zero real growth to technical assistance activities. His delegation hoped that the seminar on technical co-operation and assistance, which would take place during the present session, would help to strengthen activities in that area. His delegation regretted that, owing to lack of time, the special session of the General Conference had been unable to examine the proposals made to ensure the integral safety of the peaceful uses of nuclear energy, and hoped that those proposals would be brought to the attention of the Board of Governors and that the latter would inform the General Conference of its conclusions thereon at the following session.

127. Mr. AL-KITAL (Iraq) recalled that from 1979 to 1985 the number of nuclear power plants in service in the world had increased from 224 to 370. However, the percentage of such plants in developing countries had not increased in that period, despite everything that had been said and continued to be said about the importance of nuclear power for the world in general and for developing countries in particular. There were many reasons for that unacceptable situation.

128. The international economic system and the economic policies of the advanced countries only aggravated the problems facing developing countries instead of helping to resolve them. In that connection, one might refer to the policy adopted by exporting countries known as the "Guidelines of the London Club", which restricted the transfer of technology referred to by the term "sensitive" or by other designations of a similar nature foreign to the spirit of the Agency's Statute. The concept of "sensitive" technology had even been extended to cover in certain cases all material and equipment used for nuclear research. That situation had had negative repercussions on the work of the Committee on Assurances of Supply (CAS), which was unlikely to reach the objectives which it had set itself and which five years after its establishment had still not reached agreement on the principles of international co-operation. It had also adversely affected the preparatory work for the United Nations Conference for the Promotion of International Co-operation in the Peaceful Uses of Nuclear Energy (UNCPICPUNE) which,

initially planned for 1983, would not take place until 1987. There was every reason to wonder whether, under those conditions, co-operation was simply a pretext for discussions and submission of studies or whether it was a real necessity both for developing and advanced countries.

129. The Three Mile Island accident which had occurred in the United States in 1979 had led to extensive discussions and studies on nuclear power plant safety. The reassuring data on the share of nuclear power plants in the total irradiation dose received by the population had not stopped the continuation of efforts to improve safety, and the Agency had undertaken a number of programmes in that area, including the Nuclear Safety Standards Programme (NUSS). However, it had not been possible to prevent the Chernobyl catastrophe, which in terms of its scale and its consequences had been much more dangerous than previous accidents. The technical development and improvement of reactor design were therefore not sufficient in themselves to prevent nuclear accidents, since the man-machine interface remained one of the main causes of that type of accident. That had been the conclusion of the Chernobyl Post-Accident Review Meeting and that conclusion had confirmed those made on the subject of Three Mile Island.

130. As a result, although it was possible to reduce the probability of nuclear accidents and to lessen the effects, it was not possible to eliminate them completely. Although the usefulness of nuclear power was indisputable, it was nevertheless up to each country to decide whether it would have recourse to such power by carefully weighing the relevant factors, namely its energy needs and the safety and economic performance of nuclear power. Safety was closely dependent on man, and the training and retraining of staff should be one of the Agency's main tasks. The Agency should develop programmes to increase the competence of operating staff and to prepare them to deal with accidents.

131. In 1979, the General Conference had rejected the credentials of the delegation of the South African racist entity and had forbidden it to participate in its work since then. Iraq had believed at the time that, following that decision, retaliatory measures would be taken against the South African entity and the Israeli entity which co-operated with it in order to

force them to abandon their racist and aggressive policies and their policy of nuclear armament, which posed a severe threat to security in Africa and the Middle East. One simple measure which the General Conference should have adopted would have been to cease all forms of co-operation and assistance likely to help those two countries to develop their nuclear capability unless they submitted all their nuclear facilities to international safeguards, abandoned all policies of nuclear armament and accepted the creation of nuclear-free zones in the Middle East and Africa.

132. His delegation noted with regret that some States continued to co-operate with Israel either openly or secretly, supplying it with the necessary materials to build up a nuclear arsenal, even going as far as to deliver enriched uranium without informing the Agency, knowing full well that Israel had the necessary means to process that material for military purposes. Well-informed sources very close to Israel had confirmed that that country had possessed nuclear weapons for some time. Israel's nuclear armaments constituted a real danger, and the Iraqi delegation invited the General Conference to take the necessary decisions. It believed that some States which had exercised and continued to exercise pressure on the General Conference by threatening to withhold their financial and technical contributions to the Agency, should bring their pressure to bear in other quarters and put an end to all forms of co-operation likely to assist the Zionist régime in pursuing its nuclear armament programme. They should also cease providing that régime with political protection which encouraged it to persist in its policy of political aggression, a policy which had led it to launch a deliberate armed attack against Iraqi nuclear facilities devoted to purely peaceful purposes and subject to international safeguards. By acting in that way, those States would enhance the role, the objectives and the credibility of the Agency, and of its safeguards system.

133. His delegation called upon the General Conference not to be influenced in its decision-making by any threat or pressure, and it regretted that the Conference had been unable to make a decision about the armed Israeli attack on Iraqi nuclear facilities, which was the most serious event which had faced the organization. The regrettable events occurring at the previous regular

session of the General Conference, when the Conference had rejected a draft resolution which had obtained 41 votes and approved another which had obtained only 31, were the result of an erroneous application of the Rules of Procedure. Iraq, which had always given its full support to the Agency, believed that it was its duty to refuse to accept that kind of situation and that it should help to make the General Conference a forum for the exchange of views between States enjoying the same rights and subject to the same obligations, and not an assembly in which certain States enjoyed privileges proportional to their financial contributions to the Agency's budget.

134. In line with its conception of the Agency, Iraq continued to request an amendment to Article VI.A.2 of the Statute in order to ensure an equitable representation of all geographical regions on the Board of Governors, thereby reinforcing the principle of equity and equality. That was why it opposed all proposals or measures which did not take account of that principle.

135. In conclusion, his delegation expressed its deep gratitude to the Agency for the technical assistance provided to Iraq which had contributed in a positive way to the development of the country's programme for the peaceful utilization of nuclear energy, particularly as regards site selection studies carried out with a view to constructing the first Iraqi nuclear power plant and in the areas of training and radiation protection.

The meeting rose at 6.25 p.m.