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# GENERAL CONFERENCE

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## THIRTY-FOURTH (1990) REGULAR SESSION

### RECORD OF THE THREE HUNDRED AND TWENTY-THIRD PLENARY MEETING

Held at the Austria Center Vienna  
on Monday, 17 September 1990, at 10.35 a.m.

Temporary President: Mr. CHUNG (Republic of Korea)  
President: Mr. VAJDA (Hungary)

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[\*] GC(XXXIV)/914.

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## OPENING OF THE SESSION

1. The TEMPORARY PRESIDENT declared the thirty-fourth regular session of the General Conference open.

2. In accordance with Rule 48 of the Rules of Procedure, he invited the delegates to observe one minute of silence dedicated to prayer or meditation.

All present rose and stood in silence for one minute.

3. The TEMPORARY PRESIDENT, after welcoming all the participants, and in particular Ms. Flemming, Austrian Minister for the Environment, Youth and the Family and Mr. Winkler, who had been the first Chairman of the Board of Governors, said that the General Conference was being held at a time when the world had been undergoing dramatic changes in its political and economic structure. The historic events of the past 12 months would affect the future in major ways for many years to come. Profound changes were taking place in Eastern Europe. A sudden confrontation had arisen in the Middle East which, at the slightest provocation, could put an end to peace in the world. The East had also been shaken by a wave of changes. Western Europe was moving towards greater unity, and that momentous development had found an echo throughout the western hemisphere. In North-South relations, too, there was hope for greater harmony, although the memory of past mistrust and suffering was still present. The old order was changing and yielding to the new.

4. The new dawn was fraught with concern about the frailty of the earth. Pollution, the greenhouse effect, holes in the ozone layer, and climate changes were the key words of the day. The "atom" was appearing in a new light and the problems caused by oil and coal had suddenly given fresh impetus to nuclear power.

5. The Agency had made great progress towards achieving certain of its objectives over the past year. The Agency's regime for preventing unauthorized diversion of nuclear material had been successful and excellent results had been achieved with regard to the operational safety of nuclear power plants. However, with regard to radioactive waste management, the use of advanced nuclear technology, and the improvement of the economics of nuclear power and its public acceptance, the objectives had not yet been reached.

6. Those were key issues which had long-term implications. Owing to the problems caused by dependence on fossil fuels, the need for a substantial increase in nuclear electricity production would be glaringly obvious in many countries by the beginning of the next century. Furthermore, universal standards for nuclear safety would emerge. Greater harmonization would lead to a single safety philosophy.

7. The Agency's objectives had not changed, but its activities had become more complex, more technical and more costly. It had taken on the very important task of helping to co-ordinate safety reviews at nuclear power plants and the study of the consequences of the Chernobyl accident in the Soviet Union. It also had to maintain the delicate balance which had been established regarding the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), which had been subjected to an extremely important review before its expiry in 1995.

8. The Agency should have the vision of a world where men and women of all countries could look beyond their own horizons and individual ambitions, to be conscious not only of the immediate moment but also of the fate of their descendants, and act together to ensure that the destiny of humanity was not ended by the atom but continued into a bright future with the atom as a source of energy. As the Agency's symbol, the atom should not be understood only in its current meaning of many particles bound together, but also in its original Greek meaning of an indivisible entity.

9. In his opening statement the previous year, he had stressed the importance of reconciliation between peoples, between nations and between man and nature. He believed that great progress had been made towards such universal reconciliation. A new order was emerging in which the emphasis was on unity and harmony, where former differences were given second place. That had been expressed clearly in the informal exchange of views on matters of common concern which had taken place the previous day.

10. In conclusion, he expressed his deep gratitude to the Director General for his leadership of the Agency, as well as to members of the Secretariat for their efficient work, and to Member States for their support and encouragement during the past twelve months.

ELECTION OF OFFICERS AND APPOINTMENT OF THE GENERAL COMMITTEE

11. The TEMPORARY PRESIDENT invited nominations for the office of President of the Conference.

12. Mr. GLADOUSH (Ukrainian Soviet Socialist Republic), speaking on behalf of the Member States in Eastern Europe, proposed Mr. Vajda (Hungary) as President of the thirty-fourth regular session of the General Conference. Mr. Vajda was well known in his country and abroad as President of the Department of Technical Sciences of the Hungarian Academy of Sciences and as Vice-President of the Hungarian Atomic Energy Commission. He had attended numerous international conferences, including meetings organized by the Agency. The Ukrainian delegation hoped that Mr. Vajda's nomination would be supported by all delegations.

13. The TEMPORARY PRESIDENT, noting that there were no other nominations, suggested that the delegate of the Republic of Hungary, Mr. Vajda, should be elected President of the General Conference for its thirty-fourth regular session by acclamation.

Mr. Vajda (Hungary) was elected President by acclamation.

14. The TEMPORARY PRESIDENT, on his own behalf and on behalf of all the delegates, congratulated Mr. Vajda on his election and wished him every success.

Mr. Vajda (Hungary) took the Chair.

15. The PRESIDENT, after thanking all delegations for the honour they had done him by electing him President, expressed his gratitude to Mr. Chung, on behalf of the General Conference, for the competence and creativity he had shown as President of the thirty-third regular session.

16. As usual, the General Conference would be considering issues of great complexity which had direct relevance to the Agency's role. The Agency had acquired an excellent reputation throughout the world as a co-ordinator and a forum for a great variety of scientific and technical activities in the area of the peaceful uses of nuclear energy and for ensuring, through its safeguards system, that all States could remain fully confident that those activities were being carried out exclusively for peaceful purposes.

17. With regard to the future of nuclear energy, he was convinced that the present hectic movements in world oil markets would give a new impetus to nuclear power. Accordingly, the role of the Agency should be carefully considered and finely balanced if and when those developments made it necessary.

18. From the experience of his own country, he believed that without nuclear power, it would be very difficult to diversify world energy supplies to the necessary extent, to reduce environmental pollution and to build up energy reserves against unforeseeable shortages. On the other hand, confidence in the peaceful use of nuclear energy was closely linked to another crucial Agency function, namely the prevention of the further spread of nuclear weapons. The thirty-fourth session of the General Conference had the task once again of further increasing the capacity and reputation of the Agency in those major fields of operation.

19. As a result of the very rapid development of nuclear science and technology during the past few decades, the peaceful uses of nuclear energy had certainly increased the hopes invested in that new and abundant energy source, but they had also created problems of such magnitude that they could only be compared with those caused by its military applications. In other words, the peaceful use of nuclear energy still retained a strategic dimension for all States, whether they made use of it or were simply concerned by the consequences of its use.

20. Turning to another aspect of increasing importance in the area of the peaceful uses of nuclear energy, he pointed out that the problems of their public acceptance were closely linked to the fear inspired by nuclear weapons, by the consequences of a possible nuclear accident and by the storage of radioactive wastes. The Agency had a major role to play in that respect. Firstly, it should support and promote research and development activities in order to enhance the safety and reliability of nuclear technologies and to reduce the effects on the environment and health. Secondly, it should play a leading role in the enlargement of knowledge about the peaceful uses of nuclear energy and thereby contribute to dispelling misunderstandings and misinformation about its use and to increasing its degree of public acceptance. That meant not only greater transparency in its own activities,

but also strict global standards, the co-ordination of supervisory activities and the exchange of experience between all parties concerned.

21. The debate on the future of nuclear energy did not provide any easy solutions, from the political, economic or scientific point of view, and all those who honestly considered the problems involved had to face the consequences of their choices. The Agency's role was not to make judgements but always to facilitate discussions and the taking of decisions while providing specialized knowledge and support in the form of organization and co-operation. That role need not be a passive one - on the contrary, the Agency had always demonstrated its ability to support and complement the efforts of its Member States by providing co-ordination and the necessary framework for a systematic and scientifically sound assessment of the different aspects of a problem. For those reasons and others, his country believed that the promotional, safeguards and safety activities of the Agency were of equal importance. There was no reason to establish priorities among them, but a constant balance should be maintained.

22. With regard to promotion, he believed that the countries which had highly developed nuclear activities were themselves vitally concerned that those which had only just chosen the nuclear option should succeed. There was also a third group of countries which had learnt a great deal and still had much to learn, but were nevertheless able and willing to provide assistance. Those countries too had special needs which would have to be met in order to ensure effective technology transfer.

23. To achieve and maintain favourable conditions for the promotion of peaceful nuclear technology, there would be a continued need to strengthen the climate of mutual trust and to do everything possible - and acceptable to all Agency Member States - to dispel the fears of a nuclear threat. For that reason, continuous extension and improvement of the Agency's safeguards system and the universal application of the non-proliferation regime were essential to ensure a wider diffusion of nuclear energy throughout the world.

24. It should also be noted that although significant and promising steps had been taken in the area of nuclear disarmament, the achievements so far did not seem sufficient to break through the very negative attitude which prevailed towards anything connected with peaceful nuclear activities. He was honestly convinced that those two fields were inextricably linked, and that only further and more successful negotiations on every aspect of nuclear disarmament could provide firm ground for the rapid development of the peaceful uses of nuclear energy.

25. Finally, he urged all those present to work together in a spirit of tolerance and mutual understanding, for the task awaiting them was extremely complex and of great strategic importance, not only for the present generation, but also for future generations.

26. Turning to the appointment of the General Committee, he recalled that under Rules 34 and 40 of the Rules of Procedure, the General Conference had to elect eight Vice-Presidents, the Chairman of the Committee of the Whole and five additional members of the General Committee. From consultations which had taken place it appeared that all regional groups except one had already agreed on their candidates to serve on the General Committee. He hoped that the outcome of ongoing discussions within that one regional group would be communicated to him in the near future.

27. In those circumstances, he suggested that the General Conference proceed to elect the candidates whose names were already known and defer the election of the other member of the Committee until later. If that procedure was acceptable, he would propose, on the basis of the agreements reached within the respective regional groups, that the delegates of Canada, China, France, Kuwait, Malaysia, Nigeria, the Union of Soviet Socialist Republics and Uruguay be elected as Vice-Presidents, Mr. Newlin (United States of America) as Chairman of the Committee of the Whole, and the delegates of Ecuador, Monaco, Sudan and Yugoslavia as additional members of the General Committee.

28. Mr. AL-KITAL (Iraq) said that the nomination of Kuwait by the Group of 77 was a political manoeuvre which could distract the General Conference from its technical mandate. That nomination would involve it in a



debate which went beyond its competence. It had been understood that all delegations attending the General Conference should show good will in order to create a favourable climate for a peaceful settlement in the Gulf region, where the massive presence of foreign troops had created an explosive situation. The nomination of the so-called delegate of Kuwait could only harm the Agency and left little hope for a solution to the Gulf crisis.

29. Mr. AL-AWADHI (Kuwait) felt bound to reply to the delegate of Iraq, whose statement had clearly shown that despite its isolation in the international community, Iraq was continuing to violate the fundamental principles of international law. Without wishing to encumber the work of the General Conference with political considerations, he recalled the recent resolutions of the United Nations Security Council which condemned Iraq for its violation of the United Nations Charter and the basic principles of law. Iraq had invaded Kuwait, which was a peace-loving country. It was therefore appropriate to ask who had caused the confrontation and the explosive situation in the Gulf region.

30. Mr. JAMAL (Qatar) said that Kuwait was an independent State which enjoyed full sovereignty and played a role in all international organizations. That peaceful country was working to restore peace, security and stability not only in the Gulf region, but throughout the world. The allegations by the delegate of Iraq were without legal basis. The nomination of Kuwait as one of the Vice-Presidents of the General Conference had been supported without reservation by the region concerned.

31. The PRESIDENT, urging all delegations to leave the settlement of that issue to the United Nations, expressed the hope that the General Conference would be able to accept the candidates he had suggested as Vice-Presidents, Chairman of the Committee of the Whole and additional members of the General Committee.

32. The General Conference accepted the President's proposals.

33. The PRESIDENT said that one vacancy remained on the General Committee. He proposed deferring consideration of that matter until the regional group in question had completed its consultations. In the light of the outcome of those consultations, he would propose a candidate for election.

34. It was so agreed.

SUSPENSION OF RULE 42 OF THE RULES OF PROCEDURE

35. The PRESIDENT said that, as the General Committee had not yet been fully constituted, it would be some time before the Conference was able to adopt its agenda for the current session. In those circumstances, he asked the General Conference, pursuant to Rule 102 of the Rules of Procedure, to agree to a suspension of Rule 42 until the General Committee had met and had submitted its report on the agenda, so that the Committee of the Whole could start meeting to consider provisional agenda items 10 to 18, and the General Conference could begin the general debate and deal with items 7, 8, 23 and 25. That procedure, which had been adopted on several previous occasions, was, as far as he could judge, the only way in which the General Conference could complete its work within the traditional time limit of five working days. Given that the General Conference was master of its own procedure and that the General Committee only made recommendations to it, he did not believe there would be any conflict if his suggestion were to be adopted and if - which was rather unlikely - the General Committee subsequently made some inconsistent recommendation.

36. The President's proposal was accepted.

MESSAGE FROM THE SECRETARY-GENERAL OF THE UNITED NATIONS

37. Mr. HINTEREGGER (Representative of the Secretary-General of the United Nations), conveying to the General Conference a message from the Secretary-General of the United Nations, said that 1990 might well be remembered as a watershed year in the history of international relations. The basis for the solution of long outstanding international and regional problems had been laid with potential benefit for all mankind. Although the progress achieved was still fragile and continuing efforts and vigilance were required to ensure international peace and security, there was good reason to hope that a new spirit of co-operation would prevail in the last decade of the century.

38. 1990 had also been an eventful year in the nuclear field. The agreement between the United States and the USSR to reduce their respective

strategic offensive weapons, the deliberations of the Fourth NPT Review Conference, and the preparations for the Amendment Conference of the Partial Test Ban Treaty marked significant achievements. A propitious atmosphere for progress had also been created for disarmament negotiations relating to other weapons and for confidence-building co-operation in other fields.

39. The International Atomic Energy Agency played a fundamental role in confidence-building between nations and in reducing the level of anxiety over the use of nuclear energy. Its safeguards programme had not only reassured the 140 States which had pledged to forgo nuclear weapons, but also the populations fearing a nuclear holocaust. By creating confidence among the parties to NPT, extensive international co-operation had been made possible in the peaceful use of nuclear energy and the transfer of technology.

40. The Agency's technical co-operation programme had become more important in view of the complicated new installations being built and the need to maintain older plants on an efficient and safe basis. The 1991 high-level technical conference which would deal with nuclear plant safety, radiation protection and radioactive waste management and identify specific areas for future action would not only be an important opportunity for reviewing the global situation; it could also make a significant contribution to the 1992 United Nations Conference on Environment and Development.

41. Sustained and sustainable development was now the goal of all countries, and there was considerable incentive for greater use of ecologically sound and socially acceptable alternatives to conventional energy sources. Limited natural resources and increased energy demand made nuclear power an attractive option for many countries. The Agency had a major role to play in ensuring that those possibilities were available to the maximum number of people and in preventing any possible misuse.

42. The benefits of nuclear techniques in pest control and crop improvement, in medicine and hydrology were appreciated by scientists and the public alike. There again, the Agency could make an important contribution to the welfare of the peoples of the world.

43. The Chernobyl nuclear plant accident had not only caused worldwide alarm, but had also resulted in unprecedented co-operation in the study and amelioration of the agricultural, environmental and health conditions in the affected regions of Byelorussia and the Ukraine in the Soviet Union. During the summer, the Economic and Social Council had adopted a resolution requesting the Secretary-General to prepare a comprehensive report for submission to the General Assembly on the actions currently under way or planned within the United Nations system relating to that accident and its consequences. In addition to the inter-agency assessment of the situation being carried out under the leadership of the IAEA, a fact-finding mission of other United Nations entities would take place during the week following the General Conference to determine how they could best assist in improving the situation, particularly for children and the elderly in the region. The Economic and Social Council had made an urgent appeal to all Member States to provide all appropriate assistance in co-ordination with ongoing or planned efforts by the United Nations system to mitigate the consequences of the accident.

44. The fear of nuclear disaster had drawn humankind together. The role of the Agency in promoting safe operational practices and radiation and nuclear safety standards, as well as providing sound management advice, was being recognized as never before. The fact that the activities of the Agency were currently in the limelight should be used to redouble the international community's efforts to secure safe nuclear power in order to meet some of the critical demands being made on the fragile planet Earth.

#### STATEMENT BY THE DIRECTOR GENERAL

45. The DIRECTOR GENERAL said that the Agency's mission was to promote the peaceful and safe uses of nuclear energy and, through its safeguards system, to verify that nuclear materials and installations were not diverted for non-peaceful purposes. Much of its work consisted in increasing efforts to transfer nuclear know-how and expertise in the fields of medicine, industry and agriculture, not only from industrialized to developing countries, but also increasingly between developing countries. Activities in those fields

did not attract much public attention, but they often had great practical importance for saving lives and improving health, increasing food supplies, reducing pollution and improving industrial products. He had wished to recall those many areas of quiet progress before focusing, as was proper at the outset, on areas which were attracting intense international attention.

46. The confrontation in the Middle East had highlighted the special and dreadful dangers caused by the presence of weapons of mass destruction in a conflict-ridden region. Any peaceful development in that area would require not only broad political accommodation but also the establishment of a climate of confidence through verified arms control commitments.

47. In its resolution GC(XXXIII)/RES/506 adopted in 1989, the General Conference had requested him to consult with the States concerned in the Middle East with a view to applying Agency safeguards to all nuclear installations in the area. As could be seen from his report to the Board and the General Conference (document GC(XXXIV)/926), he had initiated such consultations by writing to the Governments in the region. He had also recently visited Egypt and Israel and had had extensive talks with senior officials in those countries. During those talks, he had noted an intense preoccupation with the current situation and at the same time a growing awareness of the urgent need for political accommodation and arms control agreements. It was evident that in that region, where deep mutual distrust had reigned for so long and where non-safeguarded fissionable material existed in one State, special safeguards approaches might be required to create confidence. Indeed, there was reason to wonder whether regional nuclear co-operation programmes could be set up in addition to safeguards as an important factor yielding economic benefits and creating mutual transparency. The confidence built up through control by verification would then be strengthened by confidence through co-operation. The experience of mutual openness and co-operation gained by Argentina and Brazil during the last few years was an interesting example - although in a region where there was no conflict.

48. The current confrontation in the Middle East and its direct impact on oil supply were a reminder once again that it was necessary to diversify

energy sources. That remained true even though the expansion of nuclear power had helped significantly to reduce the world's reliance on oil for electricity generation. In the countries of the Organisation for Economic Co-operation and Development (OECD), reliance on oil had fallen from 24% to 9% between 1974 and 1986, corresponding to a halving of the amount of oil used for electricity production. Countries such as France and Sweden were hardly burning any more oil for electricity generation. A great industrial power, Japan, had also succeeded, mainly through the use of nuclear power, in diversifying its sources of electricity supply and achieving somewhat greater independence in the energy field.

49. Another important development of the past year was the growing scientific consensus that the current level of emissions of certain "greenhouse gases", notably carbon dioxide from the burning of fossil fuels, threatened to bring about significant changes in the world climate, as documented in the report of the International Panel on Climate Change (IPCC) published in August 1990. Given that there was no viable way of avoiding carbon dioxide emissions in the burning of fossil fuels and that the instinct for self-preservation demanded a response to that threat, there were increasing calls - in both scientific and political circles - for a reduction in the use of coal, oil and gas and for a shift from coal to oil and gas and from oil to gas, which gave rise to about half as much carbon dioxide per energy unit produced as coal.

50. While determined and systematic efforts would have to be made to save energy and to develop hydroelectric power and other renewable sources further, many countries would continue to rely on and expand the use of nuclear power. At present, 5% of the world's energy needs and 17% of its electricity needs were met by nuclear fission reactors. Generating that electricity from coal would have added some 1800 million tonnes of carbon dioxide to the 20 000 million tonnes or so already produced each year from the burning of fossil fuels.

51. The Agency could not and did not contribute to the analysis of the greenhouse effect. In the United Nations system that task was entrusted to the IPCC, set up by the World Meteorological Organization (WMO) and the United

Nations Environment Programme (UNEP). However, with the increasing pressure for early responses to mitigate that effect, it was logical for energy experts, including nuclear energy experts, to be asked to join the discussions of climatologists and environmentalists and to contribute data on the potential and problems of different carbon-dioxide-free sources of energy. It was for that reason that the Agency's Secretariat had contributed data and comments to the IPCC and to the Preparatory Committee for the United Nations Conference on Environment and Development which would be held in 1992 in Brazil. That was also part of the reason why the Agency, together with a number of other organizations, was organizing an expert symposium on the impact on health and the environment of different methods of generating electricity. Man's interference with the natural environment was a vitally serious matter, and whatever the emotional or political attitudes of the general public and of governments to nuclear power, he believed that it was the Agency's duty to work with others to provide the most objective data possible on the environmental impacts of different energy options.

52. In that connection, he noted that the leaders of the world's seven top industrialized nations, at their Houston summit in July, had stated that:

"For the countries that make such a choice, nuclear energy will continue to be an important contributor to our energy supply and can play a significant role in reducing the growth of greenhouse gas emissions. Countries should continue efforts to ensure highest worldwide performance standards for nuclear and other energy in order to protect health and the environment, and ensure the highest safety."

53. The third major development of the past year was the far-reaching changes occurring in the political and economic systems of countries in Eastern and Central Europe, including the Soviet Union. As a result of the tragic accident at Chernobyl combined with greater openness about data and events in the nuclear power industry and freedom of speech, nuclear power had come under close scrutiny and criticism. Openness and the possibility of public criticism were vitally important elements which had prompted many improvements in the safe operation of civilian nuclear power plants and the safe disposal of nuclear waste throughout the world. The effect should be the same in Eastern and Central Europe.

54. The Agency was currently bringing together national and international parties with a particular interest in first-generation WWER-440 reactors, namely the Soviet Union, Czechoslovakia, the German Democratic Republic and Bulgaria, several Western countries, the Commission of the European Communities and the World Association of Nuclear Operators. The purpose was to establish a consistent and co-ordinated programme to identify jointly the problems and shortcomings and to follow the actions taken by the countries operating such plants. The first meeting of that group had been held in Vienna at the end of August to review safety studies already undertaken, and an advisory group meeting to work out a programme for the implementation of the project had been held the previous week.

55. Another initiative that should be mentioned was a project on the radiological consequences of the Chernobyl accident, carried out with the participation of a number of organizations. The authorities of the Soviet Union and of the affected regions of Byelorussia, Russia and the Ukraine were co-operating in the project with international experts and covering most of the costs. The radiological conditions, including environmental contamination, the agricultural situation and the medical effects in the regions seriously affected by fallout from the Chernobyl accident were being assessed and the protective measures and approaches applied by the authorities in the Soviet Union were being evaluated.

56. That was no small undertaking. Some 100 international experts in radiation protection, medicine and agriculture had visited the areas in question since March 1990. Some 2000 indoor and outdoor dose rate measurements had been made, and some 1000 air, soil, grass and food samples were being analysed in the Seibersdorf laboratories to corroborate measurements made by Soviet authorities. Eight thousand personal dosimeters had been distributed in selected villages, and whole-body counting examinations to measure any internal contamination had been performed on 10 000 individuals in a mobile van generously placed at the disposal of the project by the French Government. An Agency expert had been assigned to Gomel in Byelorussia to help co-ordinate activities in the field. The outcome of the inquiry would be



a report bearing the authority of an international group of experts headed by Professor Itsuzo Shigematsu, Director of the Radiation Effects Research Foundation at Hiroshima.

57. The Chernobyl accident had had a major impact on public acceptance of nuclear power. The situation was very heterogeneous, but three factors remained of key importance for a general revival of the nuclear power option, namely the safety of nuclear installations, the safe management and disposal of nuclear wastes, and non-proliferation.

58. The Chernobyl accident had led the Agency to adopt an expanded nuclear safety programme in 1986. Other institutions, such as the Nuclear Energy Agency (NEA) of the OECD, the Commission of the European Communities, and many non-governmental international organizations, had focused increased attention on nuclear safety. The World Association of Nuclear Operators (WANO) was also very important. The Agency took pleasure in welcoming representatives of those organizations to the General Conference, including Lord Marshall of Goring, Chairman of WANO, and Mr. Uematsu of the NEA.

59. In 1989, the General Conference had dealt extensively with the Agency's work in the field of nuclear safety and had adopted a wide-ranging resolution (GC(XXXIII)/RES/508) supporting that work and requesting a report on measures to strengthen international co-operation in matters relating to nuclear safety. That report had been submitted in document GC(XXXIV)/919. It demonstrated the wide range of activities currently being undertaken by the Agency in the field of nuclear safety and suggested how those activities could be further developed and supplemented.

60. With regard to that report in general, it should be noted that if the demand for the Agency's various safety services continued to grow, as seemed likely, an increase in resources would be needed. In addition, the report dealt with a number of specific points.

61. Firstly, the Incident Reporting System (IRS), operated jointly with OECD/NEA, was gaining momentum and now contained more than 1000 incident reports from 24 countries. Under the current rules the reports were confidential, and so the Agency was sometimes accused in the public debate of suppressing information that might seem unfavourable to nuclear power. Since

most countries operating nuclear power plants now published reports on events which were included in the IRS, it would be logical for governments to agree to the general distribution of those reports by the Agency, too.

62. Secondly, there was always a risk that the public and the news media might misinterpret technical reports made available to them on unusual events or nuclear incidents and regard them as less or more serious than they actually were. That was probably why the rule of confidentiality had so far been maintained for the IRS. In order to help avoid misconceptions and to promote a better understanding of the significance of events at nuclear power plants, the Agency and the NEA had developed an International Nuclear Event Scale (INES) comprising seven levels. That scale was being used on a trial basis by almost all countries having nuclear power plants and should contribute to a consistent evaluation of the significance of events at nuclear power plants wherever they occurred. It should be added that the vast majority of events reported were either below the lowest level of the scale or at its low end.

63. Thirdly, many people believed that the future expansion of nuclear power would depend on the development of reactors with enhanced and transparent safety features, including passive elements. The International Nuclear Safety Advisory Group (INSAG) was currently working on a set of safety goals for future reactors. The next logical step would be to define safety criteria for the attainment of those goals. Meetings would be organized by the Agency to promote the exchange of information on advanced concepts, to encourage their development and to attempt to provide a framework for their evaluation. National regulators were of course responsible for the application of national licensing requirements. However, it would perhaps be worth examining whether the Agency could host international hearings in which interested suppliers could, at their expense, meet regulators from Member States to present the safety features of their designs.

64. Lastly, at the request of the Member States of the European Community, the Agency was planning a one-week conference in August 1991 on the safety of nuclear power, including waste disposal. That conference would enable national policy-makers at the technical level to take stock of current aspects

of international co-operation, including the Agency's nuclear safety programme. During that conference, efforts should be made to reach agreement on the thrust of the Agency's nuclear safety programme for the years ahead. The conclusions reached could then be examined at the political level during the 1991 session of the Agency's General Conference.

65. The second issue which was of key importance to future public acceptance of nuclear power was the question of nuclear waste. In that area public acceptance was the main problem, since experts had been convinced for a number of years that the concepts and technologies which already existed for waste disposal guaranteed the safety of present and future generations. It was, however, a fact that the public was not equally convinced. Current problems related to nuclear waste and contamination in the military sector were contributing to public doubts. A comprehensive international system of codes and guidelines accepted by consensus might effectively demonstrate that international experts were confident and convinced of their ability to handle the waste issue with a clear conscience vis-à-vis future generations.

66. In 1991, the Agency would be launching a programme to produce a new series of safety documents called the Radioactive Waste Safety Standards series (RADWASS). The model on which it was based was of course the Nuclear Safety Standards or NUSS programme. The RADWASS programme was likely to be of particular interest to developing countries wishing to establish waste management programmes, infrastructures and regulatory systems. The pace at which the RADWASS programme would be implemented would depend on the resources that could be made available.

67. He was also pleased to report that the working group of experts on a code of practice for international transactions involving radioactive waste had successfully completed its work. The experts had adopted by consensus a code entitled "Code of Practice on the International Transboundary Movement of Radioactive Waste". It would be recalled that the General Conference had requested the elaboration of such a code in 1988 following reports of illicit transfer and disposal of hazardous and other noxious wastes in the territory of developing countries. Although no case of such illicit dumping of radioactive waste had been found, the General Conference had thought it

appropriate to request the drafting of a code which would regulate and establish the basic principles for the transfer of radioactive waste.

68. The code that had been drafted affirmed the sovereign right of every State to prohibit the movement of radioactive waste into, from or through its territory. The code further required that transboundary movements of radioactive waste should take place only in accordance with internationally accepted safety standards and with the prior notification and consent of the sending, receiving and transit States and in accordance with their respective laws and regulations.

69. The third key issue was that of non-proliferation and safeguards. As delegations had learned from the media and through their Missions, the Fourth NPT Review Conference had failed to agree on a final declaration. The reasons for that failure were completely unrelated to the texts which had been prepared on safeguards and other matters of direct relevance to the Agency. The Agency could take satisfaction from the strong and unanimous confidence that had been expressed at the Conference in its safeguards. He was sure that many of the interesting and innovative ideas which had been brought up at the Conference regarding the safeguards system would be introduced by Member States directly in the Agency.

70. At the end of 1989, there had been 172 safeguards agreements in force between the Agency and 101 States, and nearly 2200 inspections, representing over 10 100 person-days of inspection, had been carried out by an inspectorate of 211 full-time inspectors and inspection assistants.

71. Some 50 States Party to NPT had not concluded the safeguards agreements required by the Treaty. However, only one of those countries had significant nuclear activities. The Board of Governors had been informed in June that negotiations would resume in July regarding the conclusion of a safeguards agreement with the Democratic People's Republic of Korea. As he had informed the Board the previous week, those negotiations had lasted nearly three weeks, but had ended without a conclusion satisfactory to all concerned. Contacts would continue and further efforts would be made to find a satisfactory solution leading to the conclusion of a safeguards agreement between the

Democratic People's Republic of Korea and the Agency. When he had spoken to the Board of Governors in June, he had expressed the hope that he would shortly be able to announce the accession of South Africa to NPT. It appeared that he had been too optimistic, since no such announcement had yet been made.

72. As indicated in the Safeguards Implementation Report, many problems remained unsolved in the application of safeguards. Of particular significance was the challenge presented by the need to safeguard large-scale facilities, especially those using mixed-oxide fuel. The tightness of the safeguards budget did not make things any easier, but progress had nevertheless been made in several areas.

73. Two and a half years earlier he had proposed for the first time a new simplified system for the designation of inspectors, and he was pleased that many Member States had accepted that proposal. All inspectors approved by the Board were now acceptable to almost half of the States in which safeguards were applied. He was grateful to Governments whose co-operation had made that possible and hoped that other governments would join them. However, he wondered whether it would not be possible to go still further, so that a United Nations laissez-passer or an Agency inspector passport with an inspection assignment order would be enough to permit entry into a Member State. There were other possibilities which should be explored. Unannounced inspections or inspections at short notice and perhaps randomized inspections might help to improve efficiency in the safeguards system once the necessary technical basis for such inspections had been obtained.

74. It was proper that the interests and requirements of developing countries should play a substantial role in the shaping of the Agency's overall programme, so that those countries could derive full benefit from it. Given the constraints on the Regular Budget, it was fortunate that the resources available for technical co-operation in 1989 had increased by nearly 10% over previous years, reaching \$50 million for the first time. On paper, the total value of the technical assistance programme in 1989 had been well over \$66 million. That good news was tempered, however, by information on the performance of Member States in meeting the current year's target for

voluntary contributions to the Technical Assistance and Co-operation Fund (TACF). As of 14 September, the Secretariat had received only 64.2% of the \$45.5 million approved as the 1990 target for the TACF.

75. During the General Conference, intensive consultations would take place as usual between delegations of developing Member States and the staff of the Department of Technical Co-operation concerning the two-year programme for 1991-92 which would be submitted to the Board in December. The indications were that the two-year cycle, by offering a longer lead time, had indeed facilitated the preparatory work necessary for the formulation of sound projects, which in turn would improve the future implementation of the projects.

76. There were a number of other new important developments. The first was the establishment of the African Regional Co-operative Agreement (AFRA) on the lines of the Regional Co-operative Agreement for Asia and the Pacific (RCA) and the Regional Co-operative Arrangements for Latin America (ARCAL). In order for it to be a success, participating countries would have to make strong commitments and outside donor countries would have to show interest in it. He trusted that that would be the case. The first working meeting, which he had had the privilege of attending, had recently been held in Cairo to examine specific projects.

77. Another development related to the New World screwworm. As he had indicated in his statement in 1989, that insect had appeared in the Libyan Arab Jamahiriya during 1988. It had since spread to an area of about 20 000 km<sup>2</sup>. A number of United Nations organizations were at present co-operating with the Libyan Arab Jamahiriya in an eradication programme which relied exclusively on the sterile insect technique. Sterile New World screwworms would be produced in Mexico at the facility of the joint Mexico-United States Screwworm Eradication Commission, transported to the Libyan Arab Jamahiriya and released throughout the infested and adjacent areas. Initial releases were planned for the autumn and were to be followed as soon as possible by full releases of 50-100 million sterile flies per week, probably at the beginning of 1991.

78. The cost of that programme, which was to last two years, was about \$80 million. The Agency was providing technical leadership for the project, in particular in the use of the sterile insect technique. The Agency was also providing research support for the project at the Seibersdorf Laboratory and had received a grant from the Swedish International Development Agency to conduct research and development in the Libyan Arab Jamahiriya.

79. He urged all Member States of the Agency to support that eradication programme in the Libyan Arab Jamahiriya. If it was not eradicated, the New World screwworm would spread throughout the Mediterranean basin, Africa south of the Sahara, and the Middle East. The consequences of such a spread would be staggering, particularly in Africa where livestock was essential for the livelihood of many people. The effect on wildlife, which was very susceptible to that pest, would also be potentially devastating.

80. The previous week, in accordance with the Agreement Governing the Relationship Between the United Nations and the Agency, he had reported to the Board of Governors that he had been informed by the United Nations Secretary-General, in a letter dated 8 August 1990, of Security Council resolution 661(1990) which, inter alia, prohibited States from providing any commodities or products as well as any funds or financial or economic resources to Iraq or Kuwait. The sanctions decided upon by the Security Council had made it impractical for the Agency to provide technical assistance, such as experts and equipment, to Iraq under the Agency's technical co-operation programme. The Secretariat would continue to assess the situation in the light of any guidance that might be given by the policy-making organs and on the basis of the Agency's Statute, the United Nations Charter and other relevant instruments.

81. From statements made at the 1989 session of the General Conference and in the Board of Governors during the past year, it was clear that several Member States would like the Agency to play a somewhat more active role in the area of public information. It was neither possible nor desirable for the Agency to address the public in any country directly. The Agency must continue to aim to provide factual information to special professional categories which could use it in their contacts with the public. National

civil servants dealing with nuclear issues, medical doctors concerned with the effects of radiation, and journalists were among the categories which could benefit from information provided by the Agency. However, without voluntary extrabudgetary contributions, there were severe limitations on what could be done.

82. In that connection, he was pleased to report that the Government of Japan had made a special contribution of \$1.5 million to support the public information programme over a three-year period. That sum was being used to strengthen the staff, to prepare a number of publications and to hold regional seminars to inform journalists in particular about nuclear topics of special interest in the regions concerned. Two such seminars had already been held during the past year, one in India in December 1989 and the other in Australia in August 1990. Another seminar would be held in October in Japan. During the present session of the General Conference, the Secretariat was also organizing for the first time a meeting of public information officers to enable them to exchange experience. The IAEA-Highlights - the non-specialists' version of the Annual Report - and the IAEA Yearbook were two other examples of efforts to reach out better to interested groups.

83. On the subject of the Agency's personnel policy, there were a few points which he wished to make. Firstly, it was essential to recruit staff of the highest standards of efficiency, technical competence and integrity. It was regrettable that the competitive edge which the Agency had once enjoyed had steadily declined. He wished to share his concern with Member States and to ask them to help the Agency by encouraging highly-qualified candidates to compete for vacant positions.

84. Secondly, General Conference resolution GC(XXV)/RES/386 and subsequent resolutions had called for an increase in the number of staff from developing areas, particularly at the senior and policy-making level. The statistics provided in document GC(XXXIV)/927 showed the level of representation of each region, and it could be seen that there had been a significant shift from industrialized to developing areas. He had also been requested to give special consideration to the appointment of qualified women to policy-making and other Professional posts on the staff of the Secretariat and, in that



context, he reiterated his appeal for more nominations of qualified women for vacant posts. As the statistics showed, the number of women in the Professional and higher categories had increased from 42 in 1981 to 78 in 1990. However, that was still only 12.8% of staff in those categories and much still remained to be done. For the first time, the Secretariat had two women at the D-1 level, one of whom was a Division Director.

85. Finally, the General Assembly had on several occasions criticized the practice of certain Member States of making supplementary payments to staff in international organizations or of requiring such staff to remit to them part of their salaries. Executive heads had been requested to put an end to those practices, which were considered incompatible with the status of international civil servants. The Secretariat had reminded staff of their obligation not to accept such payments and to report if they were requested to pay part of their salary to their governments. He appealed to Member States to respect the status of the Agency's staff and not to put their nationals in a position whereby they would violate their obligations as international civil servants.

86. Before concluding his statement, he wished to share with Member States his deep concern about the Agency's financial situation and to make some comments on the budget which had been submitted by the Board to the General Conference for approval.

87. In 1991, for the seventh year in succession, the Agency was forced to meet its programme responsibilities within a zero-growth Regular Budget. Like the zero-growth budgets of previous years, the 1991 draft budget was based on the assumption that Member States would supplement the Agency's resources by making various voluntary extrabudgetary contributions. As an exceptional measure, it was also foreseen that the acquisition of important equipment would be financed from part of the 1988 cash surplus. Only with the help of those additional measures could the Agency hope to fulfil its various obligations, which continued to expand, particularly in the fields of safety and safeguards.

88. There was a proposal to increase the Working Capital Fund by \$2 million to a total of \$8 million in 1991, or the equivalent of two and a half weeks of

Regular Budget expenditure. That increase was in no way intended or able to cover anything but normal fluctuations in receipts.

89. The effort to squeeze more activities out of the same resources was healthy, but he believed that the limits of what was possible had been exceeded and that the various expediencies to which the Secretariat had been driven bore witness to that fact. There was a pressing need to obtain a more regular and stable resource basis for the heavier workload which the Agency performed, not only in the area of safeguards, but also in administering more technical co-operation resources and in managing more programmes and services in the fields of safety and waste disposal. A medium-term plan was to be worked out, and he hoped that it would help governments to decide what they considered to be the indispensable activities of the Agency at the present time.

90. He also had to draw attention to the extremely serious situation in which the Agency found itself as a result of late and uncertain payments. So far 72 Member States had not paid, or had only paid part of, their assessed contributions to the 1990 Regular Budget. That included both large contributors and small ones. Out of a total assessment of \$170 million, only \$85 million had been received.

91. It was impossible for the Secretariat to run the Agency with such a large proportion of the resources missing. At present it had only about \$10 million in convertible currency left in the administrative accounts and a Working Capital Fund of \$6 million. That amount would allow it to operate until about the first week in October.

92. If funds were not received within the following two weeks, serious and unprecedented steps would have to be taken. As a contingency measure, the Board had approved the borrowing of available cash from the unencumbered balances of various funds, including the TACF and all extrabudgetary funds. However, that would only provide short-term relief. He therefore earnestly appealed to all States which were in arrears to pay without further delay the contributions which should have been paid in January 1990.

93. Finally, he wished to thank the Austrian Government and the City of Vienna for their hospitality and for the support they continued to give to the Agency's activities. He also wished to inform delegates that the General Conference would not be meeting in the same hall in 1991. Because of a prior booking of the Austria Center, the General Conference would be holding its next session in the Hofburg. It was five years since it had last met there, and he was sure many delegates would feel nostalgic about returning to the site of so many General Conferences. However, it was returning for 1991 only. The Secretariat had made firm bookings for the Austria Center for all subsequent years up to the year 2000.

VOLUNTARY CONTRIBUTIONS TO THE TECHNICAL ASSISTANCE AND CO-OPERATION FUND FOR 1991

94. The PRESIDENT said that, since 1982, the Agency's policy-making organs had recommended indicative planning figures to serve in fixing annual targets for voluntary contributions to the TACF. In accordance with an agreement in the Board of Governors in 1988 which had subsequently been reported to the General Conference, the indicative planning figure for 1991 was US \$49 million, and in the draft resolution relating to the TACF contained in Annex IV to document GC(XXXIV)/917, the Board of Governors recommended that figure as the target for voluntary contributions to the Fund for the following year.

95. Early pledging of voluntary contributions to the Fund considerably facilitated the work of the Secretariat in planning the Agency's technical assistance programmes. Accordingly, he urged all delegations which were in a position to do so but had not yet done so to notify the Secretariat during the current session of the voluntary contributions that their Governments would be making to the TACF in 1991.

96. At the end of the session, under another agenda item, he would report on the voluntary contributions which had been pledged up to that time, and he was confident that he would be in a position to report that a considerable percentage of the 1991 target had already been pledged.

## GENERAL DEBATE AND ANNUAL REPORT FOR 1989 (GC(XXXIV)/915)

97. The PRESIDENT recalled that, at its previous session, the General Conference had approved and applied some of the recommendations made by the inter-sessional working group to review the Conference's working practices, in particular those related to the conduct of the general debate and, above all, to the duration of speeches made therein. Consequently, he proposed that, with a view to making the most efficient use of the available time, the General Conference should authorize him, under Rule 50 of its Rules of Procedure, to limit the duration of speeches in the general debate to 15 minutes. He appealed to all delegations not to exceed their speaking time.

98. It was so agreed.

99. The PRESIDENT went on to say that, with a view to accommodating the needs of delegations as far as possible, the Secretariat might wish to make necessary adjustments to the order of speakers as set out in the speakers' list opened in June. If there were no objections, he would take it that the General Conference accepted that arrangement.

100. It was so agreed.

101. Mr. BERGAMASCHI DE LEONI RAMOS (Brazil) said that his Government attached particular importance to fostering international co-operation with a view to promoting the peaceful uses of nuclear energy. At the same time, aware of the need to implement measures and policies to ensure adequate protection of the environment, it considered that international co-operation in nuclear safety was of crucial importance for all Member States. Accordingly, his Government supported the various praiseworthy initiatives which had recently been taken in that area, including the establishment of the World Association of Nuclear Operators (WANO), the drafting of the Code of Practice on the International Transboundary Movement of Radioactive Waste, the revision of the Agency's Nuclear Safety Standards (NUSS) programme for nuclear power plants, and the holding of a world conference on nuclear safety. His Government was committed to sharing its experience in that area, as it had done after the regrettable radiological accident in Goiânia.

102. Safeguards and technical assistance were the other two pillars of the Agency's work. His delegation wished to reaffirm its appreciation of and confidence in the safeguards inspectors. His Government fully supported the Agency's safeguards as long as they were the result of sovereign negotiation by States and were applied on a non-discriminatory basis. In a joint declaration issued during the Fourth NPT Review Conference, Brazil and Argentina had stressed that they respected the position of those countries which had exercised their sovereign right to adhere to international instruments which they believed would foster the objective of preventing nuclear proliferation and expected that their own choice of ways and means to contribute to the attainment of that objective would likewise be respected.

103. The safeguards budget had experienced frequent and significant rises in recent years, growing beyond the resources allocated to other activities which were equally important, such as technical assistance. To his Government, it was important that an equitable balance be maintained between the resources devoted to safeguards and those devoted to technical assistance.

104. With regard to international co-operation, it was worth recalling United Nations General Assembly resolution 32/50 on the peaceful uses of nuclear energy for economic and social development, which set out the four basic guidelines for such co-operation: (a) the use of nuclear energy for peaceful purposes was of great importance for the economic and social development of many States; (b) every State had the right to develop its programme for the peaceful uses of nuclear technology; (c) all States should have access to the techniques, equipment and materials necessary for the peaceful use of nuclear energy and be free to acquire them; (d) the Agency's safeguards intended for the effective prevention of the proliferation of nuclear weapons, should be applied on a non-discriminatory basis.

105. He thanked the Secretariat for the high-quality technical assistance which the Agency had provided to his country and for the high project implementation rate achieved there. In 1989, several Agency-sponsored courses had been held in Brazil. Mention should also be made of the Agency's activities to promote the exchange of scientific and technical information between Member States, under the International Nuclear Information System (INIS) and

regional arrangements such as the ARCAL. His country had strongly supported those activities by making available to other Latin American countries the services of experts from its Nuclear Information Centre.

106. Brazil attached great importance to the Agency's technical assistance programme under which it had successfully implemented various projects in such areas as agriculture, medicine, industry, radiation protection, dosimetry and nuclear safety. In that connection, it was worth mentioning the continuation of the Amazon project, under which isotopic techniques had enabled much data to be gathered regarding the effects of changes in land use on the climate of the Brazilian Amazon region.

107. In that context, he pointed out that the President of Brazil, Mr. Collor, had a personal commitment to environmental protection. Brazil had adopted a new, realistic approach the effects of which were already being felt. Environmental conservation called for the problem of pollution to be tackled on a global scale and for the necessary corrective measures to be taken. There was no denying that the consumption patterns of industrial societies had been and continued to be responsible for the greatest damage to the environment. The United Nations General Assembly had recognized that in declaring that the largest part of the emission of pollutants into the environment, including toxic and hazardous wastes, originated in developed countries and that those countries bore the main responsibility for combating such pollution. Nevertheless, there was a growing consensus that the issue was a global one which called for global action. His country was ready to do its part and expected other countries to do the same. Progress in that direction could be made only by recognizing the legitimate rights of developing countries to pursue sustainable industrialization, to have access, on favourable terms, to environmentally sound technology, and to obtain the additional resources needed to implement efficient environmental policies. Those principles had been broadly observed during the negotiations which had led to the signature, inter alia, of the Montreal Protocol on the Ozone Layer and should be taken into consideration during the United Nations Conference on Environment and Development to be held in Brazil in 1992.

108. Another fundamental principle was that his country's nuclear activities should serve peaceful purposes. Brazil had always supported non-discriminatory policies aimed at avoiding the proliferation of nuclear weapons and at promoting complete nuclear disarmament, with an equitable balance of obligations and responsibilities among all nations, whatever their level of nuclear development. Those principles were incorporated in the Tlatelolco Treaty, which his country had signed and ratified, and were the basis of its nuclear policy.

109. Brazil's new constitution, which had entered into force on 5 October 1988, stated that all nuclear activities in the nation's territory would only be permitted for peaceful purposes and with the approval of the National Congress, which established the priorities for the national nuclear programme. That was a sovereign decision, taken by the Constituent Assembly and reflecting the wish of the Brazilian people, the country's commitment to use nuclear energy for the benefit of Brazilian society, and its international obligations. President Collor had personally instructed the competent authorities to ensure that those principles were strictly observed.

110. Similarly, his country's current Government had undertaken the restructuring of the Brazilian nuclear sector under the aegis of the National Nuclear Energy Commission, a civilian body within the framework of the new Secretariat for Strategic Affairs that was responsible for all projects under the Brazilian nuclear programme, which the administrative changes made were intended to render more transparent. In that context, it was worth mentioning that the National Nuclear Energy Commission, the Industrias Nucleares do Brasil S.A. (INB) and private Brazilian companies deploying efforts to encourage the private sector to increase involvement in nuclear activities.

111. He recalled that in recent years, his country and Argentina had been engaged in a process of political consultation and economic integration. The co-ordination of those two countries' nuclear policies was an important area of co-operation. Since the signing of the joint declaration in the nuclear field at Foz do Iguaçu in November 1985, technical contacts between the two countries had considerably intensified, involving an extensive exchange of data on experience and materials through seven meetings of the Working Group

and of the Permanent Bilateral Committee on Nuclear Co-operation which had been held alternately in each country. High-level officials and technical experts from each of the two countries had visited nuclear facilities, research centres and other establishments in the other country. In July 1990, President Collor, on his first visit abroad as Head of State had had important talks in Buenos Aires with President Menem on nuclear affairs which had led to tangible results.

112. The co-operation between Brazil and Argentina now covered a wide range of projects - nuclear safety, mutual assistance in case of nuclear accidents or radiological emergencies, research reactor fuel, safeguards concepts and methods, the fast breeder reactor project, exchange of information on materials and techniques, industrial co-operation, etc. The co-operation was proceeding harmoniously and demonstrated the maturity and responsibility with which the two countries approached their nuclear programmes, which had peaceful objectives.

113. That increasing co-operation was also clearly reflected in multilateral and regional forums where the Brazilian and Argentine delegations worked together, for example the Agency, the Conference on Disarmament, the Agency for the Prohibition of Nuclear Weapons in Latin America (OPANAL), and the Fourth NPT Review Conference, in which Brazil and Argentina had participated as observers.

114. On the threshold to the twenty-first century, countries and peoples were becoming increasingly aware of the need to promote development without damaging the environment. There seemed to be a growing consensus that sustainable economic development depended on the long-term availability of reliable, clean and safe energy resources. Nuclear energy was an option which had to be maintained because it offered a concrete possibility both of protecting the environment and of conserving fossil fuel resources for future generations. Technological improvements in many areas must be pursued and increasing levels of operational safety ensured. Clearly, in his country as elsewhere in the world, the promotion of nuclear energy required renewed public confidence in the safety of nuclear installations. Research in that area must be intensified and technical achievements shared. Care must be taken to avoid what President Collor had called a "new form of colonialism"



which obstructed developing countries' access to sophisticated technologies that would be of immense value to them.

115. His Government very much appreciated the support given by the Agency to those objectives and reaffirmed its full commitment to bilateral and multilateral nuclear co-operation.

116. Mr. OSHIMA (Japan) said that although the situation of nuclear energy was not easy, even in his country, Japan was actively promoting the peaceful uses of nuclear energy as a major source of energy. Where the nuclear fuel cycle was concerned, his country had been making progress in its programme of construction of facilities for uranium enrichment, spent fuel reprocessing and radioactive waste disposal, with the objective of establishing its own nuclear fuel cycle.

117. Under its fast breeder reactor programme, Japan was building a prototype, named "Monju", which was expected to attain criticality in 1992. In nuclear fusion, his country was pursuing research and development activities with a view to practical applications. In addition, once the conceptual design for the International Thermonuclear Experimental Reactor (ITER) was completed, his country planned to play a more active role in the next phase of the project, the engineering design activities, through such measures as providing the ITER team with facilities necessary for its research.

118. Turning to the Agency's nuclear safety activities, he said that the joint work being performed at the International Research Centre at Chernobyl in response to the request of the USSR Government and the activities to assess the various measures taken after the Chernobyl accident were expected to be successful. His country proposed to contribute as much as possible to promoting those new activities, without neglecting the humanitarian aspects.

119. Nuclear power now supplied nearly 17% of the world's electricity needs and accounted for about a quarter of the electricity generated in his country. Nuclear power generation was thus firmly established and essential as one of the main sources of energy.

120. Environmental protection had recently been receiving increased attention, and the economic summit held in Houston in July 1990 had confirmed

that nuclear power generation continued to be important for energy supply while playing a key role in reducing emission of the gases which caused global warming. In that light, his country intended to promote the increased use of nuclear power, bearing in mind the need to ensure operational safety.

121. In order to promote more smoothly the peaceful uses of nuclear energy, it had become imperative to obtain the assurance that nuclear reactors were safe and, more importantly, to gain the understanding and co-operation of the community. To that end, his country was sparing no effort in the area of nuclear safety, and it would also make a positive contribution to the Agency's various safety-related activities.

122. The understanding and co-operation of the community could not be gained unless the co-operation of the people involved could be secured. At the same time, it was no less important to strengthen international ties, for example, through exchanges of information between the countries concerned. With that in mind, his country had made a special contribution to the Agency in March 1990 and had decided to host a regional seminar on nuclear energy, mainly for the media, in Aomori (Japan) at the end of October 1990. His country hoped that the seminar would contribute not only to the smooth development of nuclear energy in Japan, but also wider acceptance of that type of energy in the countries concerned.

123. At the Fourth NPT Review Conference, his country, believing that the development and use of nuclear energy should be strictly limited to peaceful purposes, had expressed its determination to contribute to maintaining and further strengthening the international regime established by the NPT. From that point of view, Japan had called upon States which had not yet acceded to that Treaty but which had significant nuclear activities to accede to it as soon as possible. Furthermore, his country strongly hoped that those States Party which had not yet concluded a full-scope safeguards agreement with the Agency, as required by NPT, would do so as soon as possible.

124. With regard to the export of nuclear equipment and materials to non-nuclear-weapon States, his country had taken very strict measures, issuing export licences only when the recipient country adhered to NPT and accepted

full-scope Agency safeguards. Japan hoped that other countries would take similarly strict measures.

125. The application of Agency safeguards to civilian nuclear facilities in nuclear-weapon States should be gradually expanded, within the resources available to the Agency, so as to strengthen the universality of the non-proliferation regime.

126. The Agency's safeguards system had thus far produced results, but in view of the severe financial difficulties which States party faced, it was important to streamline inspection activities without undermining their effectiveness. His country hoped that a continuous review of the established procedures for safeguards and inspections would take place in the appropriate forums with the Agency.

127. As an advanced nation strictly committed to the peaceful uses of nuclear energy, Japan would continue its efforts to prove that the non-proliferation of nuclear weapons and the peaceful uses of nuclear energy were compatible. In that endeavour, his country hoped to benefit from the co-operation and understanding of the countries concerned and the Agency.

128. Japan was determined to support in every way possible the Agency's technical co-operation activities, which greatly contributed to expanding the peaceful uses of nuclear energy in developing countries. In particular, it would continue to increase its annual contribution to the TACF in proportion to its assessed share, in recognition of the importance which it attached to the Agency's activities in that area. It hoped that a greater realism would prevail in the formulation of long-term objectives with regard to the means for their implementation.

129. In the area of regional co-operation, he welcomed the creation, in addition to the Regional Co-operative Agreement for Asia and the Pacific (RCA) and the Regional Co-operative Arrangements for Latin America (ARCAL), of the African Regional Co-operative Agreement (AFRA). His country had played a central role in financial and technological assistance to developing countries in Asia and would spare no effort to meet the real needs of that region, while paying due regard to the non-proliferation of nuclear weapons.

130. Among international organizations, the Agency enjoyed unequalled prestige for the effectiveness of its management, and the Director General and the staff of the Secretariat deserved thanks for the understanding which they had shown regarding the financial situation of Member States and for the remarkable efforts which they had been making for a number of years to maintain the growth of the budget at zero in real terms. His country hoped that the Agency would continue those efforts in the interest of realism and effectiveness, for example by assigning priorities to its various areas of activity.

131. Thus far, the Agency had satisfactorily fulfilled its mission as a technical and universal organization for promoting the peaceful uses of nuclear energy while contributing to non-proliferation. In 1989, the Governor from Japan, Mr. Endo, had been able to assist the Agency in its activities by serving as the Chairman of the Board of Governors. Japan would continue, as part of its contribution to the Agency's important activities, to provide capable staff for the Secretariat.

132. Mr. MOORE (United States of America) read out a message from President Bush of the United States:

"As we begin the decade of the 1990s, the world has entered a period of significant change in the international system and strong challenges to international peace and stability. Since you last met in Vienna, we have witnessed meaningful and largely peaceful movements toward the restoration of democracy and the development of market economies in Central and Eastern Europe. At the same time, recent events in the Middle East and the Gulf demonstrate increased uncertainty, instability, and conflict in that region. Under such conditions of change and uncertainty, I believe we must continue our strong resolve to prevent the spread of nuclear weapons, while facilitating the use of nuclear energy for peaceful purposes. The International Atomic Energy Agency traditionally has fulfilled a vital institutional role at the centre of international efforts to achieve these objectives. The IAEA's unique safeguards programme is the cornerstone for global efforts to prevent the further spread of nuclear weapons. This programme deserves the unwavering commitment and support of all IAEA members. Its function is especially important as we look to a substantial expansion of power reactors and other civil nuclear facilities in this decade. In addition, we strongly support the IAEA's effective programmes of technical assistance to promote peaceful application of nuclear energy in other areas such as health and agriculture.

"The IAEA also has much to offer in meeting the world's needs for safe and environmentally sound sources of energy. The Agency continues to be a primary source of assistance to countries seeking to develop clean energy sources for sustainable development. Nuclear energy offers a safe, reliable, and environmentally compatible means of providing electrical power. Nuclear energy will continue to be a vital part of global efforts to enhance energy supplies, while lessening dependence on fossil fuels. The Agency's programmes to improve nuclear safety and to promote measures for the safe and long-term disposal of nuclear wastes address important concerns over greater reliance on nuclear power and can advance public acceptance of nuclear power and technologies.

"I look forward to strengthening the close co-operation between the United States and the IAEA in the years ahead. On behalf of the people of the United States, I extend to you my best wishes for a productive and successful General Conference."

133. Since the early years of the nuclear age, the Agency had been a staunch and responsible advocate of nuclear energy for the betterment of people everywhere. Equally importantly, it had also stood as an ever vigilant guardian against the spread of nuclear technology to those who would exploit its potential not for peace and human progress but for threat and conquest.

134. The Fourth NPT Review Conference had been a success, even though no final document had been adopted. It had achieved its main purpose by completing a thorough review of the various provisions of the Treaty. The vast majority of delegations had reaffirmed their strong support for NPT and had endorsed the conclusion that the Treaty had been and continued to be essential in preventing the spread of nuclear weapons and maintaining international peace and stability.

135. Both President Bush and Mr. Baker, the Secretary of State, had recently called for a strengthening of the non-proliferation regime. Preventing the spread of nuclear weapons was at present more important than ever. That was the prevailing view among the States party to NPT, a treaty which enjoyed virtually universal support. In fact, during the Fourth NPT Review Conference, the Government of Mozambique had acceded to the Treaty by depositing with the United States its instrument of accession. That accession was another step towards strengthening peace and co-operation in southern Africa, and the United States strongly urged other nations of the region to

accede to the Treaty as soon as possible in order to show their support for Mozambique, to strengthen the NPT regime, and to enhance peace and co-operation in that part of the world.

136. The Agency's unique safeguards programme, extensive technical co-operation and numerous nuclear safety activities had provided a foundation for the growth of peaceful nuclear energy. As a result, peoples around the world were currently enjoying its many benefits, whether for electricity generation, agricultural production, medicine or research. All those associated with the Agency's work could be proud of its remarkable achievements and success.

137. While the work of the Agency had been central to the growth of civilian nuclear power, it would be even more important in the coming century, in which both economic and environmental issues would bear a distinct global character. The Agency's traditional roles would become even more crucial in the twenty-first century. Everyone was aware that the demand for energy, and especially electricity, was growing substantially. Also, in many countries, people were deeply concerned about endemic environmental problems and the issue of global climate change. A reconsideration of all energy options could therefore be expected, together with a renewed interest in nuclear power, which would lead to expanded responsibilities for the Agency.

138. As increasing numbers of States acquired or developed their nuclear capabilities, the Agency's non-proliferation responsibilities would become much more critical. In a speech to Congress and the American people the previous week, President Bush had noted that: "Interdependence has increased. The consequences of regional instability can be global." Those consequences could indeed be terrible if nuclear weapons became part of the equation. The Agency's work to prevent any misuse of nuclear materials would be vital in the future. In the same speech, President Bush had spoken of his vision of a new world order in which the proliferation of nuclear weapons would have no place.

139. Currently, 450 nuclear power plants were in operation in 26 countries. Nine other countries were planning or already constructing facilities.

Nuclear plants provided about 17% of world electricity needs, almost twice as much as in 1980. No similar increase was expected for the coming decade. In fact, despite the future potential of nuclear power, the short-term outlook was limited. Projections indicated that nuclear power's share of world electricity production would remain stable or even decrease slightly in the 1990s. That was certainly the situation in the United States, which accounted for one quarter of the world's nuclear power plants.

140. Despite the acknowledged need to increase installed capacity, growing environmental concern about fossil fuels and recent progress in nuclear technology, nuclear power was not expanding in the United States, for a very simple reason: many Americans were afraid of it. They were afraid of nuclear plant accidents such as those at Three Mile Island and Chernobyl, and afraid that nuclear wastes could not be safely contained. Those fears were not exclusive to the United States, they were shared by many people around the world. Civilian nuclear power could never fulfil its enormous potential unless those fears were addressed effectively.

141. How could such fears be allayed? How could the public be enlightened as to actual risks versus the benefits of the peaceful atom? How could the future of civilian nuclear power be ensured? Mr. Watkins, the Secretary of Energy, had answered that question in his address to the General Conference in 1989, saying that "The key to restoring public confidence in nuclear energy is a positive track record of operational safety", including safe and environmentally sound waste management. In the final analysis, the human factor was crucial. However reliable the systems were, and however advanced the technology, it was ultimately the men and women who ran the systems and operated the technology who must have the training, discipline and commitment necessary to ensure sustained operating performance and full environmental compliance. The commercial nuclear industry in the United States had learned and successfully applied that lesson after the Three Mile Island accident.

142. The United States Department of Energy had taken various measures in the past year to assist in ensuring the future of nuclear power. First of all, it was now giving priority in all decision-making to safety and respect for the environment. A ten-point plan to establish line management authority

and accountability and to promote operating excellence was in place and being rigorously enforced at all nuclear facilities. As part of that plan, the Secretary of Energy, Mr. Watkins, had established "Tiger Teams" to assess environmental, safety and health problems at Departmental facilities and, more importantly, to identify the root causes of those problems. Secondly, the United States was completing work on the national energy strategy, which covered its energy needs to the year 2030. That strategy would for the first time set out a framework for decision-making which would demonstrate the difficulty facing the country - and the less desirable options open to it - if it refused the nuclear option. That project should assist significantly in establishing a rational national debate on nuclear power which did not exist at present. Thirdly, the United States was pursuing a vigorous technology development programme. Contracts had been awarded during the current year to Westinghouse and General Electric for continuing work on advanced, simplified, mid-size light-water reactors with natural or passive safety systems. Each contract called for submission of a standardized nuclear plant design to be certified by the Nuclear Regulatory Commission by 1995.

143. Research and development activities were also continuing on integral fast reactor (IFR) technology as a possible complement, early in the next century, to light-water reactors. The IFR technology had a potential for reducing spent fuel storage capacity requirements. Work was under way to demonstrate the ability of the IFR system to separate the actinides from spent fuel, to fabricate fuel assemblies containing those actinides, and to recycle the assemblies through a fast reactor in large volumes.

144. A fourth major initiative had been the development and implementation of a five-year plan for environmental restoration and waste management. The plan was updated annually and currently extended to 1996. For the first time, the five-year plan integrated environmental cleanup and protection, waste management and applied research and development within a single programme. The research and development gave priority to in situ waste treatment, waste minimization and human resources training. The full resources necessary were being committed for implementation of the plan. In its 1991 budget, the



Department of Energy was requesting close to US \$3 billion for environmental restoration and waste management activities, which was about 17% of the total budget.

145. It was worth emphasizing again that effective waste management was essential in order to gain the necessary public credibility to allow the resumption of nuclear growth around the world. At the present time, people were generally more fearful of "radioactive" waste than of other hazardous chemical wastes. They did not understand the safe and reliable record of peaceful nuclear power. Those who did understand - all of the Member States of the Agency - had an obligation to work, individually and in concert, to correct faulty perceptions and to inform public opinion.

146. Another major Departmental initiative in the nuclear area was renewed attention to the longer-term civilian radioactive waste programme. The Office of Civilian Radioactive Waste Management was responsible for supervising the development of the first permanent geological repository to be licensed in the United States. The Office, under its new director, had begun to work to a more realistic time schedule.

147. The amounts of nuclear material used by first-generation nuclear plants that would be coming of age and requiring dismantling would increase the pressure on waste storage capacity; in the case of relicensed plants, old radioactive components would require disposal. In addition, nuclear disarmament, welcome as it was, would create another substantial body of nuclear materials which would have to be handled and stored with great care.

148. He was pleased to announce that for some time the Soviet Union and the United States had been co-operating closely in those areas. Following an initiative taken during the 1989 session of the General Conference by Mr. Watkins and his Soviet counterpart, the United States Department of Energy and the USSR Ministry of Nuclear Power and Industry had continued their discussions and in March 1990 had signed a co-operative agreement on improving the operational safety of Soviet reactors. That agreement, which covered procedures, training, management and operational controls, would draw heavily on expertise in the United States private utility sector. A second co-operative agreement was to be signed on the following day in Vienna by

Mr. Konovalov and the United States delegate himself. It would be a memorandum of co-operation in the fields of environmental restoration and waste management. The first working groups would be meeting within a few weeks to begin to develop a detailed plan of action.

149. In conclusion, the prospects for restoring the nuclear option worldwide were good if public confidence could be regained in the operational safety of nuclear facilities and the environmentally sound treatment, storage and disposal of radioactive wastes. Nuclear power, as a safe, clean and economic option, could have a place among the world's energy sources in the twenty-first century. Extensive human, scientific, financial and educational resources were being allocated to that end. Strong and active support of the Agency would also continue in the years ahead. The Agency was a primary channel for improved communications, expanded technical co-operation and concerted efforts to address the energy and environmental problems which were shared by the global community. Most importantly, the Agency must continue to play its driving role in preventing the further proliferation of nuclear weapons in accordance with the international community's commitment. At the dawn of the twenty-first century, States must make a common resolve to meet the challenge of peace, to ensure that world prosperity grew hand-in-hand with increased global security, and to improve the quality of life for people everywhere - in short, to create a new world order.

The meeting rose at 1.10 p.m.