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RECORD OF THE TWO HUNDRED AND EIGHTY-SECOND PLENARY MEETING

Held at the Neue Hofburg, Vienna,
on Monday, 29 September 1986, at 10.15 a.m.

Temporary President: Mr. MANOUAN (Côte d'Ivoire)

President: Mr. RAMANNA (India)

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OPENING OF THE SESSION

1. The TEMPORARY PRESIDENT declared the thirtieth 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 welcomed the delegates, observers, representatives of the United Nations and its specialized agencies and those of other intergovernmental organizations. He thanked the Austrian authorities, who had once again made available the Hofburg Palace for the Agency's General Conference.

4. The first special session of the General Conference, which had ended the previous Friday, had been an outstanding success. If the same spirit of co-operation prevailed in the coming week, he was confident that the thirtieth regular session would be equally productive.

ELECTION OF THE PRESIDENT

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

6. Mr. HOSSAIN (Bangladesh), speaking on behalf of the Middle East and South Asia regional group, said it was a great honour for him to propose Mr. Ramanna, delegate of India, as President of the General Conference at its thirtieth regular session. Both as an outstanding nuclear scientist of international repute and in his capacity as Chairman of India's Atomic Energy Commission, he had made a major contribution to the development of that country's nuclear power programme. His personal qualities and his wide experience of Agency and United Nations meetings concerned with technical and political aspects of the peaceful uses of nuclear energy made him eminently suited to the post.

7. Mr. KENNEDY (United States of America), speaking on behalf of the North America regional group, seconded the nomination of Mr. Ramanna.

8. Mr. CUEVAS CANCINO (Mexico), on behalf of the Latin America regional group, Mr. GAUTIER (France), on behalf of the Western Europe regional group, Mr. SOWINSKI (Poland), on behalf of the Eastern Europe regional group, Mr. AHIMSA (Indonesia), on behalf of the South East Asia and the Pacific regional group, Mr. ZANNAD (Tunisia), on behalf of the Africa regional group, and Mr. MURATA (Japan), on behalf of the Far East regional group, supported the nomination.

9. Mr. Ramanna (India) was elected President of the General Conference for its thirtieth regular session by acclamation.

10. The TEMPORARY PRESIDENT congratulated Mr. Ramanna on his election. Mr. Ramanna (India) took the Chair.

11. The PRESIDENT thanked the delegates for the honour they had bestowed on him by electing him President of the General Conference for its thirtieth regular session. He hoped his unanimous election had something to do with the fact that he had been connected with the Agency for a long period of time, indeed almost since its inception. He wished in that context to refer to an outstanding scientist of the past generation, Mr. H.D. Smyth, who had served on the Agency's Board of Governors for many years. The well-known "Smyth Report" had been the first major document published on atomic energy. He wished to pay a tribute to Mr. Smyth, who had died recently at the age of 88, for his contribution to the development of atomic energy and the Agency.

12. He commended Mr. Manouan of Côte d'Ivoire on the excellent manner in which he had guided the proceedings of the twenty-ninth regular session of the General Conference the previous year, as well as the recent special session.

13. The General Conference was meeting under very special circumstances. For the first time a regular session was being held immediately after a session devoted entirely to technical and safety matters, subjects of the greatest value to the development of nuclear power in the world. At the special session, man's desire to use modern technology for constructive purposes and to reject its destructive aspects had been emphasized by many delegations. Nuclear energy was still new, but even during its short history it had proved to be a highly promising source of energy for the future. The special session had shown that, while many problems persisted, it was well

within man's capacity to ensure that the necessary safety standards were achieved so that nuclear energy could continue to serve mankind. Every effort must be made to ensure that nuclear energy was made totally safe.

14. In a sense the special session had also indicated the direction in which the General Conference and the Agency should move, namely towards matters concerning the production and uses of nuclear power and other associated applications and away from issues that had no direct bearing on science and technology. The view had often been stated at past sessions of the General Conference that the Agency should devote itself more to technical matters, particularly those which would enhance the safe use of atomic energy. While atomic energy was a part of modern technology, the developing countries would probably benefit more from its utilization than anybody else. A number of recent Agency meetings on the development of small and medium power reactors had drawn attention to that fact.

15. Though he wished the Conference to avoid discussions of a purely political nature, he felt obliged to make reference to an obnoxious social problem, namely the inhuman apartheid laws in South Africa. He himself knew from his earlier years what racial discrimination meant. The fact that it still existed legally in 1986 made it imperative for effective action to be taken by all countries. A hundred years previously, Mahatma Gandhi had rallied the oppressed people of South Africa to break some of those degrading laws. That he had done virtually alone and through the force of his personality. He (the President) was therefore among those who felt that even the Agency should play a part in the fight against such injustice. He would, however, be guided by the views of delegates as to whether the Conference should concentrate on passing resolutions against discrimination, which might or might not have an effect on those laws, or on the introduction of nuclear power in developing countries and the improvement of nuclear safety generally.

16. In conclusion, he noted that nuclear safety had been widely discussed during the special session, but such discussions held little relevance for countries which had no nuclear power reactors. All countries should enjoy the benefits of nuclear power and steps should be taken to enable them to do so as soon as possible.

ELECTION OF OFFICERS AND APPOINTMENT OF THE GENERAL COMMITTEE

17. The PRESIDENT suggested that, as it had unfortunately not been possible to conclude informal consultations on the election of officers and the appointment of the General Committee so as to complete the composition of that Committee, further consideration of the matter be suspended until the afternoon.

PROCEDURAL REMARKS BY THE PRESIDENT

18. The PRESIDENT suggested that, as in previous years, pending the report of the General Committee on the agenda, the Conference take up items 2, 3, 5 and 6 of the provisional agenda. Those were formal items or items specified in the Statute.

19. It was so agreed.

MESSAGE FROM THE SECRETARY-GENERAL OF THE UNITED NATIONS

20. Mr. ALLAF (Representative of the Secretary-General of the United Nations) said that in recent months, in the aftermath of the tragic reactor incident in the Soviet Union, the interest of the international community had focused on the Agency's statutory tasks in the area of nuclear safety. It was gratifying that a number of States, including those immediately concerned, should have taken the initiatives that were now leading to a concerted multinational effort, under the aegis of the Agency, to improve international co-operation in nuclear safety, mitigate the risk of accidents and reduce their possible effects. A multi-pronged international approach of that kind was a welcome development.

21. The conventions on early notification and emergency mutual assistance adopted at the special session of the General Conference the previous week constituted a significant move towards the solution of those important problems on an international basis. The United Nations Organization was keenly interested in those efforts - its concern was recognized in the Agency's Statute - and was ready to support the Agency in its endeavours wherever possible.

22. The tragic accident at Chernobyl had demonstrated the compelling need for the international community to co-operate closely on all matters pertaining to the use of nuclear energy for peaceful purposes. It should also serve to demonstrate the terrible hazards of the possible use of nuclear weapons in the event of war. He recalled in that context that in 1985 the General Assembly had unanimously called upon all States, particularly the nuclear-weapon States, to adopt concrete and practical measures to prevent the outbreak of war, especially nuclear war, and to take appropriate steps to halt and reverse the nuclear arms race. The two major nuclear Powers had in recent months indicated their wish to achieve meaningful reductions in their nuclear arsenals. It was in the interests of all that that wish should find expression in agreement on measures to reduce the threat of mass annihilation which had hung over the world for the past decades.

23. Finally, he wished the General Conference success in its very important tasks which involved the safety and well-being of the world's population, and personally congratulated Mr. Ramanna on his election to the post of President of the General Conference.

STATEMENT BY THE DIRECTOR GENERAL

24. The DIRECTOR GENERAL recalled that the previous week's special session of the General Conference had closed with the adoption of two international conventions and a resolution reflecting a consensus on the role of nuclear power and the importance of nuclear safety. The special session had called for an expanded nuclear safety programme within the Agency and had requested the Board of Governors to take action to launch that programme.

25. The consensus reached by governments at the special session should provide helpful guidance to public opinion. That consensus stated that nuclear power was an indispensable source of energy for many countries; that each country was responsible for securing the highest level of safety; that there was scope for further international co-operation in nuclear safety and that it was for the Agency to play the central role in encouraging and facilitating that co-operation. The Conventions on Early Notification of a Nuclear Accident and Assistance in the Case of a Nuclear Accident or Radiological Emergency, already signed by 50 Member States, filled gaps in the

international legal framework of response to emergency situations. Their elaboration during the summer and adoption the previous week demonstrated how rapidly and effectively governments could act when faced with urgent international problems and when there was a common will to tackle them together. The Convention on Early Notification of a Nuclear Accident would enter into force on 27 October 1986 since three Governments had signed it without any reservation with regard to ratification.

26. It seemed that the new Board of Governors at its first meeting after the General Conference was likely to request the Secretariat to consider the impact of both conventions on the work of the Agency and to prepare, for the Board's meetings in February 1987, information on the proposed actions and their budgetary implications. A meeting with representatives of other international organizations of the United Nations system had been convened the previous week to discuss ways of co-ordinating activities in relation to accidental releases of radioactive substances into the environment.

27. During the summer, international nuclear co-operation had been demonstrated at its best. Governments, acting through the Agency's Board of Governors, had given prompt direction to the initial steps to be taken and had sent their experts to draft the two conventions; the technical nuclear community had carried out the expert post-accident review; other organizations in the United Nations family had offered their assistance and expertise; bodies such as the Inter-Parliamentary Union had adopted supportive resolutions; and the media had continuously informed the world at large of the progress achieved and problems encountered.

28. Although the Agency's nuclear-safety-related activities had played a particularly prominent role during the past five months, it would be a great mistake to conclude that the Agency had been neglecting other areas of work. The whole programme had in fact gone ahead unabated, and the regular session of the General Conference provided a welcome opportunity to review the overall profile of the programme.

29. Although the Chernobyl accident had had a considerable impact on public opinion and had led some Governments to defer decisions on the further expansion of nuclear power, the fact remained that the global contribution of nuclear power to total electricity generation in the world had increased

by 14% in 1985. Nuclear power plants had generated about 1400 TWh(e) during 1985, an increase of 19% compared with 1984. To produce that amount of electricity by conventional means would have required the entire annual coal production of one of the countries with the largest coal production, either the United States or the Soviet Union, or the total Saudi Arabian oil production in 1982, in other words about seven million barrels of oil a day (300 million tons/year). Those figures demonstrated clearly that nuclear power was not a marginal technology, but one which played a very substantial role in electricity production.

30. While there had been a decoupling of the gross domestic product from primary energy consumption growth, electric energy had continued to grow steadily, with nuclear power providing 40-65% of that electricity in a growing number of countries or in large industrialized regions within countries. Electrical energy was increasingly a motor of industrial and economic growth, so nuclear power was not a dispensable luxury; it was an essential source of energy that continued to grow substantially in several countries.

31. The discussions focusing on accidents and safety problems during recent months had completely overshadowed other interesting and more positive facts. Nuclear power plants in most countries had shown a steadily improving performance bearing witness to the maturity of the technology. From the plant availability statistics which the Agency presented jointly with UNIPED and the World Energy Conference every three years, it could be seen that in Europe, for example, nuclear plants showed higher availabilities than their oil- and coal-fired counterparts in all size categories. At the General Conference in 1987, the Agency intended to publish a report drawing on operator experience at some of the plants that had had exceptionally good performance and high levels of safety, so that all could learn from those positive experiences.

32. The constraints working against the nuclear option in different countries varied considerably. In some industrialized countries public opposition and complicated regulatory procedures combined to lengthen construction times. High interest rates and uncertainties in policies could put nuclear power at a disadvantage by comparison with plants that had lower initial capital costs.

33. For developing countries, the high initial investment was just one of many obstacles to be overcome. Following requests made both at the NPT Review Conference and at the Agency's General Conference in 1985, a Senior Expert Group had been established to advise the Agency on mechanisms to assist developing countries in the promotion and financing of nuclear power programmes. The Group had identified a number of other important constraints in addition to investment capital, namely trained manpower, infrastructure, electric grid sizes and industrial support programmes. Some of those constraints could be alleviated if medium-sized reactors of comparatively simple design, with greater inherent safety and high reliability, were available at competitive prices. The Senior Expert Group had been struck by the very different problems faced by developing countries and had accordingly proposed a new approach for defining the constraints affecting the introduction of nuclear power - an approach that would take into account individual country profiles. Co-operation with the World Bank was being pursued, including the use of joint missions to assist a number of countries to assess their future energy and electric power needs and determine the role which nuclear power could play in a least-cost long-term strategy for electricity supply.

34. In the period of soul-searching following the Chernobyl accident, increased attention would undoubtedly be devoted to the next generation of nuclear reactors - which ought to be less complex, economically more favourable and intrinsically safer than their predecessors. Additional safety and reliability could normally be achieved through progress in technological developments. In that perspective, co-operation through the Agency should encourage new concepts for safer nuclear power plants with high performance standards. For that purpose, a major conference on nuclear power performance and safety was planned for 1987.

35. Another part of the fuel cycle which called for international co-operation was spent fuel and waste management. It had been recognized that the wastes arising from uranium mining and milling operations were of critical importance for the fuel cycle's dose commitment to the general public. Therefore, the Board's approval, the previous week, of a Code of Practice and Guide to the Code on the Safe Management of Wastes from the Mining and Milling of Uranium and Thorium Ores was particularly welcome.

36. The advantages of regional or international co-operation in high-level waste disposal were obvious. Policy decisions and the actual construction of high-level waste repositories were required. Although the nuclear community did not consider such construction to be a technologically urgent issue, it was probably essential to the public's acceptance of nuclear power in many countries that there should be a visible, satisfactory solution to the problem.

37. The Agency had planned to include in its technical co-operation programme for 1987 an interregional co-operation programme to advise developing countries on their long-term plans and strategies for the development and implementation of low- and medium-level waste management systems.

38. For the majority of Member States from the developing world, applications of radiation and radioisotopes were bringing immediate direct benefits. Research reactors produced the isotopes required for a number of applications; in addition they were used for training purposes and stimulated scientific research in many fields. For the first time, the Agency had produced a booklet on the status of research reactors - of which there were some 300 in operation throughout the world, many of them in developing countries - and on trends in their utilization.

39. Progress had been made in building up and improving radiotherapy services in developing countries for the treatment and control of cancer, especially intracavitary applications of radionuclides. Regional and local training was being given in leading Egyptian and Malaysian hospitals with the help of financial contributions from Italy and Japan, respectively.

40. The industrial applications of radiation were attracting increased interest and the Agency was particularly involved in the exchange of information and research promotion related to new applications. Examples of such industrial applications were the use of accelerators for removing toxic gases from coal- and oil-burning power plants, the improvement of polymer properties, and the decontamination of animal food.

41. Radiation and radioisotope techniques were being used in a number of areas to monitor, improve and protect the environment; to study pesticide and other chemical residues in soils and crops; to rationalize the use of

fertilizers; to reduce the use of pesticides by means of the sterile-male technique of pest control; and to monitor trace element pollutants by means of nuclear analytical techniques. Food irradiation also enabled food to be preserved without resorting to chemicals. Thus, nuclear techniques were helping to protect health and the environment, not only through the use of nuclear power, but also through many other practical applications.

42. Isotope techniques were useful for studying the characteristics of the groundwater resources so crucial to areas affected by desertification. A regional project in the Sahel area was planned for 1987 to help identify areas receiving groundwater recharge. Thus an Agency project would contribute to the broader efforts of the United Nations system aimed at helping African countries affected by drought to clarify the processes at work and to find ways of reversing them.

43. The Agency was the only organization in the United Nations system which directly operated laboratories - in Seibersdorf and Monaco. Those laboratories provided Member States with training and laboratory services and were also very useful for the development of new techniques. The Seibersdorf Laboratory carried out tens of thousands of chemical and isotopic analyses each year for laboratories co-operating with the Agency and provided important back-up services to technical co-operation projects and safeguards. The completion of the new agricultural wing at the Agency's Seibersdorf Laboratory, which had been made possible by contributions from FAO and the Government of Poland and the donation of a new greenhouse by the United States Government, would strengthen the role of the Agency's experimental facilities in support of the Joint FAO/IAEA programme on nuclear applications in agriculture.

44. The International Centre for Theoretical Physics at Trieste was highly valued by scientists from all over the world. Its programme had expanded rapidly as a result of dynamic leadership and a large increase in the contributions of the host country, Italy. Nearly 3000 physicists visited the Centre each year to carry out research or to take part in seminars, symposia or workshops, more than 20 of which were held annually. Scientists from developing countries accounted for some 75% of the man-months spent at the Centre.

45. The Technical Co-operation Programme, owing to the special importance attached to it by Member States, had for several years been an exception to the zero-growth rule. There was a consensus that the Technical Assistance and Co-operation Fund should increase by 12% annually; thus, providing that pledges were made and paid promptly, there was sound support for the programme, the content of which was of course determined by priorities which Member States themselves determined when submitting their projects. The Secretariat was continuing to seek ways of ensuring the most effective programme delivery, which was clearly in the interest of recipients, donors and the Agency alike, and required concerted efforts.

46. Various ideas and issues related to the future directions of the programme would be discussed at a Technical Co-operation Seminar organized within the framework of the current session. The views of Member States were sought regarding ways of improving the establishment of clear objectives for a project, taking into account its relevance and contribution to national development plans; ways of monitoring major outputs more successfully; the type of management tools, such as computerization, which could be introduced; ways of extending the programme cycle; and ways of rationalizing planning practices.

47. Regional or South-South co-operation had been successful in Asia under the Regional Co-operative Agreement (RCA). Its counterpart in Latin America, ARCAL, was at present also under way with supporting contributions from the Federal Republic of Germany and the United States of America. The current session of the General Conference provided an opportunity for the countries involved, and any others that might be interested, to review progress and exchange views on possibilities for the future.

48. In the Agency's Secretariat, a good deal of support for the technical co-operation programme came from other technical Divisions. Regular staff often took up expert assignments and gave advice on subjects within their competence. The Agency's assistance and service to any Member State should ideally consist of activities which provided mutual support - for example technical assistance projects, research contracts and co-ordinated research programmes, seminars, training courses and advisory missions such as RAPAT safety missions.

49. The previous session of the General Conference had followed immediately upon the Third NPT Review Conference, which had highlighted the importance of the Agency's safeguards system. During the past year that system had been referred to repeatedly by members of the Conference on Disarmament in Geneva as an example that could serve as a model for verification in other arms control agreements. Indeed, the whole concept of verification, usually a major hurdle in disarmament and arms control negotiations, was now recognized by all as being a sine qua non in most new agreements. In that sense the experience accumulated with the safeguards had been very positive indeed. It was therefore important that the Agency should ensure that the credibility of the safeguards system was fully maintained and that new safeguards approaches were developed as fully automated and remotely controlled fuel cycle facilities of high safeguards significance came into operation; if that were done, safeguards would continue to serve as an inspiration and a model.

50. Safeguards operations had undergone a period of continued consolidation and many measures had been taken to improve their effectiveness and efficiency still further. The Regional Offices in Toronto and Tokyo had helped to rationalize the inspection effort and reduce travel time. Research and development work was continuing, with a large contribution from the Member States most advanced in that field, in order to keep pace with the latest technology, develop safeguards approaches for new types of facilities and achieve the optimum degree of automation.

51. In June 1986, the Board had concluded the first full-scope safeguards agreement with a country which was not a party to the Non-Proliferation Treaty, namely Albania. Such a voluntary submission of all nuclear activities had long been a possible way of building confidence for a State that was unwilling to join NPT. Following the announcement by China at the General Conference in 1985 that it had decided to submit certain of its peaceful nuclear activities to Agency safeguards, a Secretariat team had visited China in August 1986 for preliminary discussions. A draft voluntary-offer agreement was at present being worked out by the Agency to serve as a basis for further discussions during the first half of 1987. Preliminary discussions had also begun with Spain and EURATOM to draw up a trilateral safeguards agreement between EURATOM, Spain and the Agency.

52. The Third NPT Review Conference, recognizing the principle of universal application of Agency safeguards to all peaceful nuclear activities in all States, had recommended that the economic and practical feasibility of extending the application of safeguards to additional civil facilities in nuclear-weapon States should be evaluated further. While safeguards activity in nuclear-weapon States had been enhanced to some extent, it had been limited so far owing to financial constraints.

53. During the past year, pursuant to General Conference resolution GC(XXIX)/RES/442, there had been discussions with South Africa on safeguards for its semi-commercial enrichment plant. Regrettably, those discussions had broken down. There did not seem to be any point in pursuing them so long as South Africa maintained certain conditions. As to full-scope safeguards, there had not yet been any response to his written and oral request for discussions on their application in South Africa.

54. Expansion in scope and further improvements in the effectiveness of safeguards depended on the full and active co-operation of Member States. One specific problem was the designation of inspectors. If undue restrictions were imposed and undue delays arose in designations, the credibility of the system could be undermined and a costly and inefficient utilization of inspectors could result. It was also most regrettable that no consensus had been reached on a new system for the financing of safeguards. It was disappointing that the only solution, despite years of extensive consultations, should be again to extend the temporary arrangements by three years. The sums involved did not justify such lengthy negotiations. It appeared that the consensus method, which had its great merits, had led to paralysis.

55. In 1985, the General Conference had expressed the hope that the Convention on the Physical Protection of Nuclear Material would attract the widest possible adherence. Since 1985, 4 States had adhered to the Convention, and there were at present 46 signatories and 18 ratifications. Only three more ratifications, acceptances or approvals were required for the Convention to enter into force. It was to be hoped that the example of the Convention on the Early Notification of a Nuclear Accident would stimulate governments which had not yet done so to ratify the Convention on the Physical Protection of Nuclear Material (1979) without further delay.

56. The twenty-ninth session of the General Conference had also examined the question of a prohibition of attacks against nuclear facilities, requesting the Director General to keep it informed of developments. During 1986, the Conference on Disarmament had considered that problem. Difficulties remained concerning the scope of the agreement and the definitions involved. The Disarmament Conference would revert to the matter at the beginning of 1987.

57. Efforts had been made, with some success, to improve the efficiency of the Agency's activities. It was not easy to determine quantitatively just how successful those efforts had been. Intergovernmental organizations could not, like firms, measure their effectiveness by pointing to profits. Nevertheless, if objectives were clearly defined, results could be measured in terms of objectives achieved, rather than expenditure itself being made an indication of effectiveness. Mechanisms of systematic evaluation were needed for the Agency's future work. The positive experience with technical co-operation and safeguards evaluation had led to the conclusion that impact evaluation should be gradually introduced into the technical programmes as well. A system of quality assurance, so to speak, should be set up for the Agency's activities.

58. The Agency's programme and budget were formulated with a view to consensus acceptance by Member States and involved lengthy but worthwhile consultations. A two-year budgetary cycle would alleviate the burden both on staff and on delegations.

59. For several years the Agency's staff had been asked to increase their productivity in order to accommodate programme expansions within zero-growth budgets. They had succeeded in no small measure and particularly in the last few hectic months, had given proof of their efficiency. It was somewhat paradoxical that at a time when the Professional staff were expected to give their utmost they should see their pension benefits deteriorate and their take-home pay decline. That decline, which in the past two years had amounted on average to over 10%, was mainly due to the inability of the United Nations common system to find an adequate solution to the long-standing problem of post adjustments for currency fluctuations. The present situation was unacceptable. Already a number of outstanding Professional staff who had served the Agency for many years had resigned, while others had indicated their intention of doing so if no prospects of improvement emerged.

60. It would not be right to end on a negative note, since the overall balance of the Agency's work was very positive. The current session of the General Conference would demonstrate the manifold nature of the Agency's functions. The Agency had to remain responsive to the wide variety of interests of all Member States and therefore the programme had to be a balanced one. Mutual understanding among Member States was essential, and restraint and prudence were required in the handling of delicate or controversial matters.

VOLUNTARY CONTRIBUTIONS TO THE TECHNICAL ASSISTANCE AND CO-OPERATION FUND FOR 1987

61. The PRESIDENT said that in 1985 the Board of Governors had agreed to continue - for the years 1987, 1988 and 1989 - the practice of recommending indicative planning figures as an aid to fixing targets for voluntary contributions to the Fund, with an annual increase of 12% over the previous year in each case. The figure for 1987 had been set at US \$34 million, and in the draft resolution relating to the Technical Assistance and Co-operation Fund in Annex III to document GC(XXX)/777 the Board of Governors recommended that figure as the target for voluntary contributions to the Fund for the year 1987.

62. Since early pledging would considerably facilitate the work of the Secretariat in planning technical assistance programmes, he urged all delegations which were in a position to do so to notify the Secretariat during the current session of the voluntary contributions to be made by their Governments to the Fund in 1987. He hoped that by the end of the session he would be able to report that a large percentage of the target figure for 1987 had been pledged.

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

63. Mr. HERRINGTON (United States of America) said that the importance of the Agency, not only in fostering the peaceful uses of atomic energy but also in contributing to peace and security through the application of international safeguards, was considerable. Furthermore, that importance was exemplified by the role it had played in the international community's response to the disaster at Chernobyl.

64. One of the most encouraging things about the activities of the Agency was that it served to illustrate what States, even of different philosophies, could do if they judged that their self-interest could be served by joint action. The health and welfare of citizens of all countries was dependent in a substantial measure on economic growth and the availability of adequate energy sources. Moreover, it was a fact that international society was highly interdependent. The welfare of American citizens was closely related to the welfare of those in other countries. There would be no true security in the energy sector if others faced shortages or high fuel costs that could serve to limit their growth and destabilize their societies. Nor could one be secure in efforts to use nuclear power if serious accidents occurred elsewhere since that created doubts about the safety of nuclear technology.

65. It was important to note that, in the absence of the Agency, countries of the developing world would most likely have received far less information and training in the nuclear sciences than they had to date. For example, there was no bilateral or multilateral organization that was doing as much as the Agency around the world in disseminating information on the application of nuclear technology in the development of medicine, food and agriculture. Also there was no other organization as well placed to deal with nuclear safety issues that were global in significance. Had the Agency not been involved, the proposed new conventions on emergency assistance and prompt notification would probably not have been negotiated as smoothly and as rapidly as they had been the week before.

66. Finally, there was no other body that had had the unprecedented experience of performing inspections of civilian nuclear facilities around the world, and there was no other body with a global responsibility to provide assurance that nuclear material in civil facilities remained in peaceful nuclear activities.

67. Those achievements had not happened by accident. They reflected the determination of the majority of Member States to make the Agency a serious, business-like organization. To guarantee that that continued, Member States would have to redouble their efforts to resist the introduction of extraneous political issues which tended to undermine the deliberations. During the

present session that problem would arise again. How it was handled would determine the future of the organization.

68. The Government of the United States and the Agency shared the same energy goals, that was clear from their common wish: (1) to achieve greater security in an uncertain world; (2) to maintain strength in the energy sector through a balanced and diversified use of resources; and (3) to secure greater long-term energy stability.

69. His country remained firmly committed to the development of nuclear power, and was determined to be a stable and reliable partner in the worldwide effort to enjoy the benefits of nuclear power under prudent non-proliferation conditions. In so doing, the United States would promote the safety and well being of all its citizens.

70. With regard to the domestic situation of the United States, even relatively modest projections of electricity requirements made it imperative that nuclear power remained an attractive and available option in the energy mix for the world. If growth in the United States was any example - and the growth in electricity demand ran to only two or three per cent annually - there would still be an annual requirement of some 100-300 GW of new electricity generating capacity by the year 2000 - less than 15 years away. That was equivalent to 100-300 new nuclear power plants. While much of that capacity would be coal fired and some would burn natural gas, a significant fraction should also be nuclear in order to preserve a reasonable level of diversity in United States sources of electric power. However, to achieve that goal, there would be need to overcome some unique impediments to the introduction of nuclear power that had evolved in his country in recent years.

71. More specifically, there would be need to provide better assurance to utilities and the investment community that commercial plants could be built on schedule and that they would not be vulnerable to interminable delays in construction either due to poor management or to the licensing process.

72. The United States was attacking that issue on a multi-pronged front that involved prospective licensing reform. The adoption of voluntary but rigorous self-policing efforts within the utility industry, and the gaining of continued improvements in technology. Both technical and institutional issues were being addressed.

73. Nuclear technology had already shown that energy could be delivered safely, economically and reliably. The performance of existing commercial power reactors had been good, but it could be improved even further. The current orientation in the field of advanced reactor technologies emphasized three things: design simplification to reduce plant cost; greater use of passive safety features; and the incorporation of plant features designed to standardize and improve licensability. In time that approach would be pursued in the further development of improved plant features to reduce costs and improve already substantial safety margins.

74. In his Government's view, the events of the previous week represented an important episode in the history of the Agency. As a result of Chernobyl, countries had been working together to identify ways in which they could better cope with significant accidents. They could be proud that they had been able to develop, negotiate and sign two important new international conventions that pertained to that issue. Both conventions had been signed by the United States.

75. The international efforts aimed at improving reactor safety, discussed the week before, would help all States to chart a firmer course towards energy security. The Agency's safety-related programmes served desirable developmental interests, and he strongly supported the expanded safety programme.

76. The safety programme had various desirable features, and was very well conceived. For example, his country supported the training and advisory services provided by the Agency under the NUSS programme. Worthy of note were the contributions which the United States Nuclear Regulatory Commission (NRC) had made to that effort over many years. The NRC had also provided the Agency with extensive information on the results of its various research activities pertaining to reactor safety, as had the Department of Energy. The week before the Chairman of the NRC had delivered important source term data to the Director General that was not available anywhere else in the world. The United States maintained close interest in the progress of a number of the Agency's traditional international working groups, especially those dealing with water reactor fuel performance and technology, fast reactors, and gas-cooled reactors. It also followed with great interest the programme begun

the previous year on new water reactor concepts aimed at simpler operation and improved safety.

77. Like other countries, the United States was also exploring other energy alternatives. As a case in point, it proposed to maintain a strong and healthy fusion programme. In August 1986 the Department of Energy's tokamak fusion test reactor had achieved a temperature of 200 million °C. That was ten times hotter than the centre of the sun and the highest plasma temperature ever recorded in a laboratory. Most important, a temperature had now been achieved in a large-scale plasma where other principal characteristics were approaching those needed for a fusion reactor.

78. American scientists were co-operating in the Agency's international tokamak reactor study - INTOR - which involved the United States, Japan, the Soviet Union and the European Economic Community. In the costly area of fusion research that approach facilitated access to valuable information while avoiding a significant demand on the Agency's already strained resources.

79. The activities described were among those currently in the forefront of his country's programmes, given its own energy situation and energy security interests. The United States also had a strong interest in the Agency's technical co-operation activities that were often of direct concern to the developing countries. For example, his country supported programmes that provided assistance to Member States in using nuclear techniques such as radioisotopes and radiation in agriculture, industry and medicine. Furthermore, the Agency's work in radioisotope techniques associated with medical diagnostics and treatment was in the long run of benefit to all.

80. The United States had also supported project-and-supply agreements for the utilization of various research reactors around the world and their associated training programmes. Not only did such projects enhance research and education, they also served to promote broad acceptance of the Agency's safety standards as well as Agency safeguards. Since that area of Agency activity was particularly worthwhile, there was an express provision in United States law permitting an annual gift of special nuclear material to the Agency for such purposes. Annual gifts had been made by his country to the Agency for over 25 years and the latest gift would be applied to a project in Thailand for its TRIGA Mark III reactor built by the United States.

81. The critical importance of the Agency safeguards system in enabling States to engage in international nuclear co-operation and derive the full benefits of nuclear power had already been stressed; it was a programme to which the United States had dedicated very strong support - at policy levels, in its national legislation, in its strong support for the Non-Proliferation Treaty, and through tangible forms of technical safeguards assistance.

82. In 1986 the United States programme of voluntary supplementary support for the Agency safeguards programme would be almost \$6 million. In addition, the Department of Energy was continuing to invest significant funds in research and development activities that directly contributed to safeguards. That domestic effort was currently operating at a level of roughly \$5 million and a significant fraction of the improved safeguards equipment now being employed by the Agency had evolved from that particular programme.

83. It was hard to believe that almost 25 years had passed since the Agency performed its first safeguards inspection in 1962. There was no other operational activity in the entire United Nations system that was making a more valuable, day-to-day contribution to the preservation of international security. However, there was still a long way to go in broadening the application of Agency safeguards to additional States. It was encouraging that a large number of States, including other parties to the Non-Proliferation Treaty and non-adherents, appeared to share a basic non-proliferation ethic, and the IAEA had been of the greatest use in helping to create that frame of mind.

84. The IAEA and its Member States had quickly responded to the challenging agenda placed before them over the past few months on account of the Chernobyl disaster. That illustrated the fact that the peaceful atom had become truly international. But tolerating unsafe reactors meant that there would always be unsafe reactors. The existing problems were human, designed and created by humans and they were capable of human solution. A start had been made the previous week, but it was only a start. It was a common goal to make sure that the peaceful atom remained a constructive force and that public confidence in nuclear energy was restored.

85. Mr. CAPRON (France) said that the fears engendered by the Chernobyl accident called for a clear and comprehensible response from the international nuclear community. The quality of that response would to a large extent determine the future of nuclear power.

86. Since the accident, the very advisability of using nuclear power had come into question, at a time when certain other factors were also acting against it. For example, oil prices had now fallen almost to pre-crisis levels, and were likely to remain that way for some years, while the nuclear industry was hampered by high initial investment costs and long construction times. It was sometimes felt, furthermore, that nuclear energy's share in electricity production was excessive.

87. In response to that, he noted that for the industrialized countries taken as a whole, nuclear power had in 1985 covered less than 10% of primary energy requirements, over 80% of which had been satisfied by fossil fuels. Those proportions would be even more marked if developing countries were taken into consideration.

88. At the same time it was clear that energy needs in general, particularly in terms of electricity, would, despite the recent downward trend, continue to grow noticeably. Experts had predicted that from now to the year 2000, energy requirements would grow at an annual average rate of approximately 2% for industrialized countries and 3% for developing countries, while the annual increase in electricity demand for the same period would be of the order of 2.5% and 6%, respectively.

89. France was of the opinion that nuclear energy should make a vital contribution to satisfying those future needs, since it was based on a tried and tested technology which was competitive alongside other energy sources and which embodied specific advantages. It was, in particular, the only energy option which combined added value to the consumer with an absence of pollution.

90. The competitiveness of nuclear power was a measurable reality. In France, for example, the cost of a nuclear kWh was 30% lower than from coal-fired plants and 70% lower than from oil-fired plants for base load operation. Given the operational flexibility of nuclear plants, which was now comparable to that of the classic thermal plants, the nuclear kWh remained

competitive up to an output of 2300 hours per year. He expressed the conviction that nuclear energy represented the most appropriate response to the world's present energy needs, all the more so since the industrialized nations had a duty to reduce their dependence on fossil fuels in order to give developing countries easier access to them.

91. Governments and the Agency alike should realize that while it was necessary to take the views of public opinion into account, it was also their duty to enlighten the public as to what was really at stake.

92. Turning to nuclear safety, he said that right from the beginning that had been the prime concern of the nuclear industry. For France, as for other major nuclear powers, such concern had not started with Chernobyl. As the French Minister for Industry had previously noted, the power to regulate in the area of safety could not be shared or delegated, but must be left to individual States.

93. Good safety, moreover, was not simply a matter of implementing abstract parameters, nor did it result from the systematic application of unique, universal and absolute measures. Just as in the design, construction and operation of power plants themselves, good safety resulted from taking account of an integrated body of technical, political and human data which, by definition, were specific to each State and which could only be properly dealt with at government level.

94. It was clear that the causes and effects of the Chernobyl accident had been directly linked with the specific characteristics of the type of power plant involved. It would, therefore, not be justified to modify the safety systems of other types of plant in the world, since they were based on designs which had not been called into question - on the contrary - by the analysis of the accident.

95. That analysis had demonstrated the paramount importance of operational safety, involving operational management, manpower training, knowledge of technical systems and the implementation of procedures and regulations properly suited to all operating conditions. It was here that the Agency, in its safety programmes, could further extend its activities, in regard both to training and to the exchange of information among operators.

96. International co-operation, and in the present case, the Agency's safety programme, found its true justification when it helped States to assume their national responsibilities. There was no doubt that the Agency, which had acted rapidly and effectively after the Chernobyl accident, would adequately fulfil the role which fell to it in that connection.

97. It was important, even under the present circumstances, not to lose sight of the fundamental balance in the Agency's activities between technical assistance and co-operation on the one hand and safeguards on the other. The Agency must not become merely a regulatory body serving those countries already having a nuclear power programme; it must remain a developmental body serving all countries.

98. With regard to France's nuclear power programme, there were, as of 1 September 1986, a total of 63 units either installed, under construction or on order (a total of 62 618 MW(e)), of which 43 units were industrial in nature. Of the latter, 38 were pressurized-water reactors (PWRs), five of which were rated at 1300 MW(e). Those reactors, the average age of which was four years, had attained an energy availability factor of over 80% in the twelve previous months, without any significant incident having occurred.

99. Electricity derived from nuclear sources had in 1985 amounted to two thirds of total French electricity production, equivalent to one quarter of the country's primary energy requirements (50 million TOE), 66% of which were covered by fossil fuels.

100. Future priorities in respect of reactors concerned, first, improvement of the operability, economic competitiveness and reliability of existing installations; second, the study of new, more economical, operable and flexible PWR designs to make more efficient use of fissile materials than existing systems; and third, the successful industrial commissioning of the Creys-Malville plant, incorporating the Superphénix fast breeder reactor, which had already attained 50% of its rated capacity of 1200 MW(e). The success of that installation would to a large extent determine the future of a system, the deployment of which was now a less urgent objective than a few years previously, but which remained a necessity in the long term.

101. In terms of the fuel cycle, efforts were being directed in particular toward extending the La Hague reprocessing plant, whose existing installation was now operating with remarkable regularity at its rated capacity, having reprocessed since its commissioning over 1600 t of fuel from light-water reactors; the successful commencement of mixed oxide fuel fabrication for PWRs by Eurodif; maintaining the very satisfactory operation of the Eurodif plant for uranium enrichment by gaseous diffusion; development of the promising technique of uranium enrichment by laser; the problems of radioactive waste management and storage, the technical solutions to which were already well in hand.

102. The design and operational safety of all nuclear installations was a matter of permanent concern, but had naturally been particularly highlighted under the present circumstances.

103. Given the scope of its nuclear power programme, it was understandable that France should figure prominently among those countries seeking the best possible safety conditions for developing that resource, and he wondered how the situation would evolve in the light of Chernobyl.

104. His Government had already confirmed that the country's existing energy policy would be maintained. As far as nuclear power was concerned, that meant that new plants would be constructed in line with increasing electricity consumption. The present commitment was to one 1300 MW(e) unit every 12 or 18 months.

105. In conclusion, the Chernobyl accident should not cause people to forget that the world's energy requirements could only be satisfied at reasonable cost through a major dependence on nuclear power. The nuclear option would, for some countries, contribute significantly to economic and social development, while for some, facing the demands of an expanding population, it might also come to be the only solution possible.

106. For those reasons it was important that an accident should not serve to bring into question an energy source which used tested and reliable technologies, and which alone was capable of reducing States' energy dependence in the long term.

107. Mr. HIREMATH (India) said that the present session of the General Conference was being held at a time of crucial importance for the future of nuclear technology owing to the unfortunate accident which had occurred a little over five months previously. That event had set in motion a chain reaction with world-wide repercussions on public opinion. Even in the past, from time to time, there had been misinformed criticism about nuclear power and its applications. However, nuclear power had fully demonstrated its utility as a stable source of energy, nuclear technology had also been applied to agriculture and medicine, and it had likewise led to benefits in industry. There had been general recognition of all those facts during the special session of the Conference which had just been held, although some delegations had expressed their doubts and concerns. India, for its part, was convinced that nuclear power could be developed with little risk to operating personnel, general public or environment, provided the necessary precautions were taken.

108. The year 1985-86 had seen notable advances in the Indian atomic energy programme. On 18 October 1985 the first indigenously built Fast Breeder Test Reactor (FBTR) using indigenously developed mixed carbide fuel had reached criticality with no difficulties or complications, thus marking the second phase of India's nuclear power programme. The country's three-phase strategy had started with the use of natural uranium in PHWRs, to be followed by plutonium-fuelled FBRs and, in due course, by the utilization of the thorium-uranium-233 cycle.

109. During the past year, India's nuclear power units had continued to operate with good availability and satisfactory load factors. Significant progress had been achieved in manufacturing key nuclear components with shorter lead times than in the past, thus promoting the economic development of nuclear power. India was continuously upgrading the safety standards of its nuclear plants and was also laying increasing importance on operator training and retraining.

110. He wished to stress the great importance which India attached to the Regional Co-operation Agreement (RCA) from which developing countries had already benefited and which should be further expanded. The personnel so trained could be harnessed to the development of various programmes. India would be hosting RCA meetings and training courses and contributing the

equivalent of US \$50 000 for the implementation of such activities. He strongly urged that the RCA should add co-operation in nuclear power to its existing work on the medical, industrial and agricultural uses of radioisotopes.

111. His Government recognized the great value to developing countries of the Agency's technical assistance activities, although it was not happy about some of the directions which the programme had taken in recent years, particularly the discriminatory practices introduced since 1979, after the adoption of the Revised Guiding Principles. Nevertheless, India would be paying its share of voluntary contributions for 1987 to the Technical Assistance and Co-operation Fund and would, as in the past, make Type-II fellowships available to the Agency.

112. Following a need identified by the Board of Governors, the Agency had convened a group of senior experts to advise on mechanisms to assist developing countries in the promotion and financing of nuclear power programmes. The developing world, had a great stake in the use of nuclear energy for peaceful purposes, owing to a lack of possibilities of power generation from other sources, and he wished therefore to urge all concerned to support the expert group in its work.

113. He had noted with interest the numerous proposals for enhanced nuclear safety that had been put forward by various experts during the discussions held in recent months. He naturally supported that increased concern for safety, and took the present opportunity to mention that an independent Atomic Energy Regulatory Board had been in operation in India since November 1983, with specific responsibility for overseeing all safety-related matters at Indian nuclear facilities. It was in that same spirit that India had actively participated in the meeting of governmental experts to draft the recently approved conventions on early notification and on mutual assistance, although his Government was disappointed that, in spite of the desire expressed by a large number of countries, including India, to draft an early notification convention that would cover accidents from whatever source, civil or military, including nuclear weapons and nuclear-weapon tests, it had not been possible to reach a consensus on such a full-scope instrument. India had, nevertheless, decided to sign both conventions, subject to ratification,

because of the solemn assurance publicly given by the five nuclear-weapon States that they would notify all nuclear accidents with possible transboundary radiological safety significance.

114. Regarding the proposals currently under consideration for an expanded Agency programme of nuclear safety activities, he would emphasize that those proposals would have to be subjected to careful expert study, as would the financial implications of such a programme.

115. India would continue to co-operate with the Agency in the implementation of safeguards at those Indian nuclear facilities for which the Government had voluntarily accepted an obligation to place nuclear materials under safeguards. The Agency safeguards inspectors had been able to carry out their tasks successfully and the relevant agreements were being scrupulously observed.

116. From time to time statements were made that non-signatories of NPT should not shirk their duty to prevent the proliferation of nuclear weapons. It was strange that even now, after three review conferences, there had not been sufficient recognition of the fact that NPT was inherently discriminatory. That inequitable treaty accorded to certain countries full freedom to continue with their nuclear weapon tests and thus further to elaborate their ever-increasing nuclear arsenals, while others - in fact the very countries that did indeed pursue peaceful nuclear programmes - were asked to abide by much more rigid terms and conditions. In that context he noted with regret that, although there had been a unilateral initiative on the part of one country to halt its nuclear weapon tests, there had been no reciprocal response from the others concerned.

117. In concluding, he wished to reiterate that the Conference was meeting at a time when the world's eyes were focused on nuclear energy and on its environmental implications. It could not be denied that an accident at a nuclear facility did lead to doubts about the safety aspects of that new technology, but nevertheless the net balance was very much in favour of nuclear technology, once its security and safety aspects had been adequately covered.

118. Mr. HAUNSCHILD (Federal Republic of Germany) said that the last year had again witnessed a considerable expansion of nuclear power, now accounting for 15% of the world's electricity generating capacity. In the OECD countries the figure was indeed above 20%. Even if at present there was a virtual halt in the ordering of new plants, the completion in the coming years of a considerable number of plants now under construction could be expected. Nuclear power remained a source of energy of steadily increasing importance.

119. It was against that background that the consequences of Chernobyl had to be dealt with, both by individual countries and in the international context. That accident had produced a profound and bewildering shock within the German population, a shock particularly severe because of the magnitude of the accident and its tangible and intangible consequences, and because of the prolonged lack of information on what had happened, why it had happened, and what it might lead to. Judging by that shock, he could only describe the task before the Agency as large, difficult and urgent. The previous week had seen the convening of a special session of the General Conference for the explicit purpose of guiding further international efforts to improve nuclear safety and to contain the consequences of nuclear accidents.

120. It was by no means automatic or usual that in a moment of crisis the international community called upon an organization in the United Nations family to constitute the forum for discussions on the provision of guidance and on action. Why had that occurred in the present case? He believed that the world had turned to the Agency because of its reputation as a well-managed international body with competence to deal impartially both with frequently complex technical questions and with international political problems. That positive image was also based on the fact that the Agency had, so far, not allowed extraneous political considerations to interfere with its basically technical and scientific tasks. That situation should continue.

121. The Agency's good reputation had been built up over a period of 30 years, and had been the decisive factor influencing his Government's request that the Agency should give direction to the international debate. That trust was obviously shared by all Member States, as otherwise it would

not have been possible to find a consensus, in quite a short time, on the further steps to be taken. Particular tribute had to be paid to the prudent and expeditious guidance given to the Agency's efforts in those crucial days by the Director General, Dr. Hans Blix, and to the dedication of the Agency's staff in meeting the sudden challenge with ingenuity and hard work.

122. Paradoxical as it might seem, the position of the Agency had been strengthened by the Chernobyl accident. It had been entrusted with new tasks, and it could firmly count on the support of its Members in responding to them. It was in the interest of everyone to preserve that context of fruitful international co-operation. The international community needed a strong and lively International Atomic Energy Agency.

123. In the Federal Republic of Germany the continuous development of nuclear energy during the past five years, in particular the reliability and safety of the country's nuclear power plants, had helped to establish a positive climate for an improved acceptance of nuclear energy. The strong reaction of the public to the Chernobyl accident had deeply affected that climate, at least for the immediate future, and had led to a renewed and extremely controversial debate on energy policy. In that debate the Federal Government had strongly supported the continued utilization of nuclear energy, given the safety record of the nuclear power stations in the Federal Republic. In particular, it had emphasized that nuclear energy protected the limited reserves of non-renewable raw materials. Furthermore, a renunciation of nuclear energy would lead to greatly increased competition for fossil fuels. At the same time, the supply of raw materials would be affected - also for coming generations. Such a development would especially affect countries without indigenous resources, including many Third World countries. Also, renouncing nuclear energy, necessarily coupled with the expanded use of fossil fuels, would entail a drastic increase in environmental pollution, and would thus be in conflict with the central political goal of reducing, as fast as possible, emissions of sulphur dioxide, nitrogen oxides and dust. In addition, for an industrial country like the Federal Republic of Germany nuclear energy had considerable technological and economic significance. Finally, the development of renewable sources of energy had nothing like advanced to such a degree that it could, in the foreseeable future, replace nuclear energy.

124. Turning to the specific features of nuclear development in the Federal Republic of Germany during the last year, he observed that one could again observe a period of steady growth. In the area of advanced reactors and in the nuclear fuel cycle, projects were running on schedule. It should be noted, in particular, that the 300 MW high-temperature reactor had started to operate during the previous year and that the 300 MW fast-breeder prototype was practically completed. The uranium centrifuge enrichment plant had reached a capacity of 150 t/a, and an expansion programme was under way. Preparations for waste repositories were progressing satisfactorily, and site preparations for a reprocessing plant at Wackersdorf in Bavaria had started at the end of 1985.

125. Regarding international co-operation, he wished to mention that his Government had recently signed an agreement with the Soviet Union on scientific and technical co-operation, which would include the peaceful uses of nuclear energy. He expected that upon entry into force of that agreement a wide range of joint activities would develop.

126. On the subject of the Agency's activities during the past year, he would first address himself to the nuclear safety programme. The first special session of the General Conference had afforded an opportunity to discuss the different aspects of international co-operation in nuclear safety and the role of the Agency in fostering such co-operation. While not wishing to continue that discussion in detail on the present occasion, he would just mention three points on which, in the opinion of his Government, particular attention and support were needed:

1. The co-operation of the Agency in the implementation of the two conventions adopted the previous week;
2. The further discussion of nuclear safety standards. Their updating and refinement in the light of the post-accident evaluation were a matter of urgency. Also, work on trying to elaborate safety rules to which States might commit themselves was an important and challenging task;

3. The demonstration of a high level of nuclear safety to the international community. Operational Safety Review Teams, the Incident Reporting System and Radiation Protection Advisory Teams were already in action, and those services should be expanded.

Nuclear safety was one of the most important assignments of the Agency. A well-structured, expanded safety programme was in the interest of all Member States, regardless of whether they wished to promote the use of nuclear energy on their own territory or whether they were primarily interested in ensuring its safe application in other countries.

127. His Government was pleased to note that in 1985 the Agency again arrived at the conclusion that nuclear material under safeguards remained devoted to peaceful nuclear activities or was otherwise adequately accounted for. That conclusion was accepted by the international community because there was trust in the technical skill as well as in the political judgement of the Agency's management. As the number of facilities had increased only slightly, and as no rapid increase was expected in the near future, the safeguards system could now concentrate on still further improving its practical operations and its theoretical concepts, and on increasing its effectiveness and efficiency - for instance, by defining more realistic safeguards targets and improving safeguards technology. His Government would continue to promote efforts in that direction through its safeguards support programme by making available cost-free experts, equipment and appropriate safeguards methodology.

128. About 30% of the Agency's inspection activities were taking place in his country. There was excellent co-operation by the operators of nuclear facilities with the safeguards inspectorates, which in the case of the Federal Republic of Germany included those of EURATOM.

129. His Government was gratified that there were now four voluntary-offer agreements by nuclear-weapon States in force, and that a fifth nuclear-weapon State had indicated its intention to place some of its facilities under safeguards. Submission of a larger number of facilities of advanced rather than conventional technology would render the voluntary offers more meaningful.

130. The Federal Republic appreciated the considerable help which the Agency had provided for the nuclear programmes of its Member States. It was also pleased to note that during the past year substantially greater resources had been made available for that purpose, indicating the soundness of the present system of financing. He commended the Agency's efforts to cope with the growth of the programme by streamlining project preparation and implementation and by refining evaluation procedures. However, it would be helpful if the Agency, in presenting a new project, would spell out more explicitly its overall aim, indicating how the project contributed to the development efforts of the recipient country and how it fitted in with its own programme priorities.

131. His Government noted with satisfaction the progress made by the regional co-operation programme in Latin America (ARCAL). The Federal Republic had been the first country from outside Latin America to support that initiative, and had increased that support in 1986, and he was pleased that other countries had also decided - or were about to decide - to contribute to the ARCAL programme.

132. His Government had in 1985 again made a substantial contribution to the Agency's technical co-operation programme, and subject to parliamentary approval was prepared once more to pledge its full share of the target in 1987 and to earmark additional extrabudgetary support for fellowships, experts and equipment, training courses, scientific meetings and co-ordinated research programmes.

133. Mr. MORPHET (United Kingdom) said that the Agency had never before been so much in the public eye. The great responsibility which it carried in the field of international nuclear co-operation, and which it had long carried without over-much public attention, was being widely perceived since Chernobyl. Even so, the full extent of the Agency's achievements and capabilities had not yet been appreciated. In the coming months, there would be an unrivalled opportunity to establish international safety collaboration on a wider scale than ever before, and it was essential that the Agency should show itself ready to grasp that opportunity and carry the task through.

134. The follow-up work on nuclear safety and radiological protection must be undertaken with the same sense of urgency which had marked the Agency's activities during the Post-Accident Review Meeting in August and the first special session of the General Conference in September. Care must of course be taken to avoid overload and to ensure that the Director General and his staff were not burdened with inessential tasks; but it was imperative to maintain the momentum of the co-operative activity which had developed under the impetus of Chernobyl.

135. For its part, the United Kingdom would do all it could to contribute to well-focused programmes in the key areas of operational safety, radiation protection, and the development of commonly shared safety concepts, and it expected the Agency to help disseminate the vital conclusion drawn by the INSAG experts that there was a need for a "safety culture" in all operating nuclear power plants. The INSAG report had identified three aspects of such a culture, namely training, with special emphasis on the need to acquire a good understanding of the reactor and its operation; auditing, both internal and external to the utility, to prevent complacency arising from routine operation; and permanent awareness by all personnel of the potential safety implications of any deviation from established procedures. Safety consciousness was essential, and to ensure that the story of Chernobyl and its lessons were fully understood, the nuclear industry in his country was now arranging for operating staff to receive extensive briefing on the reasons for the accident.

136. There was no shortage of proposals for future work: the Agency's own revised safety and radiation protection programme for 1987, the recommendations of the INSAG experts, and other proposals made at the special session provided an ambitious range of work. The next tasks would be to determine the broad relative importance of those proposals, to distinguish immediate needs from matters which could be dealt with at greater leisure, and to formulate a clear, detailed schedule of international work, contacts and meetings over the coming year. In addition, a time-scale should be established for the important conceptual work which had been identified, including accident analysis, probabilistic safety assessment, and the difficult though important area of international safety standards.

137. While such conceptual work was continuing, his country's safety authorities would of course be carrying out their daily work as well, and that work was at the very heart of the matter. The quality of regulatory systems of nuclear inspectorates was fundamental to public assurance in all countries. Hence the importance of the proposals which his country's Secretary of State, Mr. Peter Walker, had made during the special session when he had urged that the Agency should update its information about existing national regulatory systems and promote best practices, possibly in due course forming an expert team to co-ordinate a peer review of such systems.

138. Although the focus of attention at present was naturally on the Agency's nuclear safety work, it was to be hoped that the current public interest could be used to draw attention to the great importance of the Agency's work in other areas. For example, most people remained quite simply unaware of the immense achievement of the international community in the field of safeguards. It must be brought home to them that, while the world had a great and vital common interest in nuclear safety, it had an equally great and vital common interest in nuclear safeguards. The Agency's safeguards would continue to enjoy the fullest support of the United Kingdom which planned to contribute, through its support programme, to a wide range of research and development activities with a view to improving the efficiency and effectiveness of safeguards. In particular, expertise and facilities were being made available, and co-operation with other Member States was being maintained in important areas of safeguards development for more advanced operations, such as the mixed-oxide fuel cycle, large-scale reprocessing plants, and near-real-time accountancy.

139. He had announced the previous year that the United Kingdom had concluded the arrangements for the implementation of Agency safeguards at Urenco-UK's Capenhurst enrichment facility, and he could now report that Agency inspectors were visiting that facility on a routine basis and that satisfactory safeguards under the voluntary offer were in force.

140. In the future, further advances in nuclear technology could be expected to be made in the field of laser enrichment. It would be of great importance for safeguards considerations to be taken into account in the course of that development, and his country's nuclear industry was being encouraged to do so when designing new plants or developing new techniques.

141. His country was gratified by the continuing good progress of the technical assistance and co-operation programme, and would make its full assessed contribution of over US \$1.6 million to the Technical Assistance and Co-operation Fund for 1987. In addition, it would double its contribution towards footnote-a/ projects in the period 1986-1991.

142. The importance of public information for nuclear power had been underestimated in the past. In his country, the nuclear industry had recently brought together its public information activities in a Nuclear Electricity Information Group, whose task was to explain the facts of nuclear power - for the debate on nuclear power must be based on facts. Given the international dimension of that debate, the Agency also should undoubtedly assign high priority to its own public information work.

143. In conclusion, he expressed appreciation of the work which had been done in the past few months by the Director General and his staff. In view of the heavy workload which still lay ahead on many fronts, it would be important to concentrate on essentials and to spare that staff in areas which were peripheral to the real work of the Agency.

The meeting rose at 1 p.m.