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RECORD OF THE THREE HUNDRED AND FOURTH PLENARY MEETING

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on Monday, 19 September 1988, at 3.15 p.m.

President: Mr. HALIM (Malaysia)

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[*] GC(XXXII)/834 and Add.1.

The composition of delegations attending the session is given in document GC(XXXII)/INF/262/Rev.2.

88-04722 (4025e/487e)

GENERAL DEBATE AND ANNUAL REPORT FOR 1987 (GC(XXXII)/835) (continued)

1. Mr. KHAN (Pakistan) said that the thirty-second session of the General Conference was meeting at a time when the international climate was relatively favourable. Progress had been made towards the solution of regional conflicts (the Geneva accord on Afganistan and the ceasefire between Iran and Iraq) and towards the first concrete measures to reduce nuclear weapons (the INF Treaty). Pakistan had always strongly advocated the abolition of all weapons of mass destruction and hoped that Treaty would pave the way for other practical measures such as a complete nuclear-test-ban treaty and the subsequent reduction and elimination of nuclear weapons.

2. In that connection, the sponsors of NPT, which enjoyed special privileges under the Treaty, should honour their obligations and pursue negotiations in good faith towards nuclear disarmament. Otherwise, they would lose the credibility necessary to persuade other States to forego nuclear weapons.

3. Pakistan was committed to the peaceful uses of nuclear energy and was opposed to the manufacture or acquisition of nuclear weapons. The proposal made in 1975 regarding the establishment of a nuclear-weapon-free zone in South Asia had received overwhelming support from the United Nations General Assembly. Pakistan had also made an offer whereby it and its neighbours would simultaneously sign NPT or accept full-scope safeguards or any other non-discriminatory measures aimed at preventing the entry of nuclear weapons into the region. There had been no positive response to those proposals, and the introduction of nuclear submarines into the area represented the start of a nuclear escalation. South Asia, which made up a fifth of the world's population, was too poor and underdeveloped to expend its limited economic resources on nuclear weapons.

4. With regard to nuclear safety, Pakistan had decided to sign the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency and the Convention on Early Notification of a Nuclear Accident. Every effort should be made to keep the nuclear power option open, since it constituted the most economical and environmentally safe solution to the energy problems of the world, and especially of Third World countries.

General Conference resolution GC(XXXI)/RES/474 urged supplier States to share safety-related information with recipient States. His country hoped that supplier States would co-operate and that the Agency would take steps to speed up the implementation of that resolution.

5. His delegation congratulated the Secretariat on having organized an information meeting on safeguards for the media the previous Sunday. Pakistan appreciated the positive and constructive role played by the Agency's safeguards system, to which it would continue to give its fullest support. There should, however, be a balance between the Agency's safeguards and technical co-operation activities, and it was regrettable that that was no longer the case: since 1970, growth in the technical co-operation programme had been less than one third of that of the safeguards programme. While the higher overall level of voluntary contributions to the Technical Assistance and Co-operation Fund (TACF) was welcome, Pakistan was unhappy to see that a growing number of Member States had not fulfilled their pledges; technical assistance should be financed from resources that were as assured and predictable as those for safeguards.

6. With respect to the Agency's programme and budget, Pakistan strongly opposed zero growth for promotional activities and regretted the fact that allocations for such important areas as nuclear power and agricultural, medical and industrial applications of nuclear energy had decreased. That did not correspond to the needs of developing countries, whose nuclear power programmes were expanding rapidly.

7. Over the past few years, Pakistan and a large number of other Member States had requested that the imbalance in the representation of Member States on the Board be corrected by increasing the number of seats allocated to Africa and to the Middle East and South Asia. As the General Conference had accepted the principle of a modest increase in the representation of those two regions on the Board, that gross under-representation should be rectified as soon as possible.

8. The Committee on Assurances of Supply (CAS) had been meeting for the past eight years without making progress. That raised questions about the real intentions of major supplier States, whose monopoly was being eroded,

with the passage of time, by advances in technology and the emergence of new supplier States, which had hitherto been recipients. Pakistan associated itself with those Member States which wanted the Board to discontinue CAS if the latter was unable to report any progress to the next session of the General Conference.

9. Pakistan had continued to make progress in its peaceful nuclear energy programme in 1987. It had successfully carried out activities in various areas: the manufacture of power reactor fuel bundles, research and development work on the production of reactor-grade zirconium, and the strengthening of the national infrastructure for the design and construction of nuclear power plants. In the area of mutation breeding, several crop varieties had been developed, one of which had permitted Pakistan to become the world's third largest cotton-exporting country. Pakistan's nuclear medicine centres treated more than 150 000 patients a year, and that sector was prepared to share its experience with other countries. His country wished to thank the Agency and those countries that had helped with the implementation of its programme.

10. Developing countries continued to be under-represented on the Agency's staff. While his delegation appreciated the efforts made by the Director General to improve the situation, there was a long way to go before resolution GC(XXV)/RES/386 was implemented. That resolution, adopted by the General Conference in 1981, requested the Director General to take "immediate steps to increase substantially the number of staff members drawn from developing areas at all levels, and particularly at the senior and policy-making levels, and to make maximum efforts to rectify the existing imbalance over the course of the next four years". Pakistan hoped that the Director General would make a more vigorous effort to implement that resolution.

11. Finally, his country supported the work of the International Centre for Theoretical Physics (ICTP), which was headed by the Nobel laureate, Professor Abdus Salam. The Agency should continue to support the Centre and to co-operate with the Italian Government, as well as with other international organizations, to enable the Centre to expand its activities in the most effective way possible.

12. Ms. PEREZ FERREIRA (Argentina), presenting her country's nuclear programme to the General Conference, said that, even after the Chernobyl accident, her Government had never faltered in its belief that nuclear power was the source of energy of the future, and of the twenty-first century. Argentina had plans to introduce an additional 700 MW of nuclear generating capacity during the next decade. Furthermore, in 1987 nuclear power in Argentina had maintained its share of electricity production relative to other sources of energy, supplying 13.44% of all electricity, even though it had been necessary to carry out major maintenance work at one of the country's two operational power plants.

13. Her country's nuclear power programme would, however, be slowed down by the country's economic situation. Among other things, her Government foresaw a delay in connecting the Atucha II nuclear power plant to the national grid.

14. Nevertheless, Argentina would continue to produce basic materials for its power reactors and planned to consolidate its mastery of the nuclear fuel cycle - for example, a pilot plant for heavy water production, of exclusively national design, technology and construction, would be inaugurated by the end of the year. Since the previous session of the General Conference, Argentina had been actively engaged in international co-operation in the peaceful use of nuclear energy, on both a multilateral and bilateral level.

15. On the multilateral level, in spite of its economic difficulties Argentina ranked fifth among countries providing experts for the Agency and as a host country for Agency fellowships, scientific visits and training courses. In co-operation with the Agency, her country had continued to hold numerous courses, some within the framework of the Regional Co-operative Arrangements for the Promotion of Nuclear Science and Technology in Latin America (ARCAL). Argentina reaffirmed its full support for ARCAL, the success of which was evident from the number and total amount of contributions from countries outside Latin America. Finally, the eleventh meeting of the multi-national programme on reduced enrichment for test and research reactors had taken place in Argentina, the only developing country participating in that programme.

16. Bilateral co-operation was continuing under 19 agreements entered into with, among others, Algeria, the Federal Republic of Germany, Brazil, Canada, Cuba, Chile, France, India, Iran, Peru, Uruguay and, most recently, Turkey. She wished in that connection to announce the opening, before the end of 1988, of the Peruvian nuclear research centre, which Argentina had helped design and construct and which was an example of horizontal co-operation between developing countries.

17. Her country was also co-operating with Brazil in a joint project to develop fast breeder technology, the aim being to construct, towards the end of the first decade of the next century, a demonstration reactor in one of the two countries. Brazil and Argentina requested that those responsible for the joint project be allowed to participate as observers in the programme of the Agency's International Working Group on Fast Reactors.

18. Those few examples demonstrated how necessary it was to make the peaceful applications of nuclear energy available to all countries. Her Government rejected the argument that nuclear development should be restricted so as to prevent horizontal proliferation, since that argument was used simply to conceal aspirations to commercial supremacy.

19. Argentina supported the Agency's safeguards system, but insisted that it be applied in a manner which fully respected the provisions of the Statute. Her country was opposed to any attempt to impose that system on a State against its sovereign will, for whatever reason.

20. Turning to the work done by the Agency since the previous session of the General Conference, she expressed her satisfaction with the Agency's technical co-operation activities during that period.

21. It was also gratifying to note that, as in previous years, the Agency was able to state that no Member State had diverted any safeguarded material for the production of nuclear weapons, if the regrettable exception of voluntary offer agreements with nuclear-weapon States were excluded.

22. Her delegation stressed the necessity, which the Governor from Argentina had referred to in the Board of Governors the previous June, of re-evaluating the inspection effort needed to ensure the continuing

reliability of the safeguards system: that would involve reconsidering all the parameters adopted - some a long time previously - and, in particular, the approaches and goals adopted for the application of safeguards to different types of installation and material. In view of the budgetary restrictions imposed by the world economic situation, that was the only way of improving the quality of inspection activities and thus of maintaining the reliability of the safeguards system.

23. With regard to the Agency's activities in the area of radiological protection and nuclear safety, Argentina expressed its satisfaction with the work done and reaffirmed its support for those efforts. At the same time, it rejected any attempt to impose binding international standards in that area; the adherence of a State to an international standard must remain a sovereign decision.

24. Promotional programmes must not be sacrificed on the altar of the zero growth policy. In the safeguards area, savings could be made at installations which were not important from the point of view of proliferation, particularly civil installations in nuclear-weapon States.

25. Her Government wished to commend the Director General and the Secretariat for the successes achieved in the past year and to reiterate its willingness to support the Agency in its efforts and to participate actively in all its work.

26. Mr. ZILLER (Federal Republic of Germany) said that, although nuclear power had recently reached a critical stage in its development, there were reasonable prospects for a new start.

27. A number of contradictions had emerged with regard to nuclear power: the Chernobyl accident had prompted a debate on the risks of nuclear power, yet there was an increasing body of knowledge concerning the dangers inherent in the combustion of oil and coal; the Agency continued to suffer financial problems despite the fact that the majority of Member States recognized that its work was indispensable; a feeling of relief had greeted the reduction in the nuclear-weapons capacity of the Superpowers, but there was renewed concern

regarding the proliferation risks presented by the peaceful uses of nuclear energy. His country was concerned about non-peaceful nuclear options and hoped that additional States would accede to NPT or the Tlatelolco Treaty.

28. In the light of those contradictions, it was fair to say that, although it involved many uncertainties, the current situation also held much promise. The only option open to the Agency and its Member States was to continue to exploit the enormous potential of nuclear energy. Continuing its present policy in that area, his country would do everything in its power to help the Agency attain that objective.

29. Nuclear power had continued to expand, and now accounted for more than 16% of the world's electricity production. In the Federal Republic of Germany, 38% of the public energy supply in the first six months of 1988 had been generated by nuclear plants.

30. His Government considered nuclear energy to be indispensable, both for ecological and economic reasons. Scientists had stated that carbon dioxide produced by the combustion of fossil fuels was contributing to global warming and that, since it could not be assessed, the impact of the greenhouse effect on human life was cause for anxiety. Furthermore, nuclear power seemed to be a necessity in a world with a growing population but limited fossil energy resources.

31. His Government actively supported the development of renewable energy sources, provided they were technically viable, economically reasonable and socially acceptable. Nevertheless, by the year 2000 such sources would at best account only for a small percentage of electricity production, mainly because they were necessarily decentralized and uncertain in character. They could therefore be no substitute for nuclear energy, which remained one of the main pillars of sustainable development in the world.

32. Although his country could not do without nuclear power and although it maintained high safety standards, it had been the scene of a debate on nuclear energy prompted by an alleged violation of NPT. It had been suspected that fissile materials had been illegally exported from the Federal Republic of Germany to other States, and that had cast doubt on the effectiveness of Agency and EURATOM safeguards.

33. Those suspicions, which had been completely unfounded, had quickly been dispelled thanks to the speedy and effective action taken by the Agency and EURATOM, which his country wished to thank once again. The complexity of the safeguards system and the difficulty of measuring its effectiveness exactly were such that emotions or deliberate misinformation sometimes obstructed a rational approach to that subject. His country hoped that the Bundestag commission of enquiry would help to make the debate more objective.

34. He noted with satisfaction that in 1987, as in previous years, the Agency had not detected any diversion or misuse of nuclear material under safeguards. His Government fully supported that conclusion because it had confidence in the Agency's competence and political judgement.

35. The debate in his country had shown that it was necessary to improve the safeguards system further in order to optimize the use of dwindling human and financial resources and, if possible, to obtain even more reliable results. In that connection, the Federal Republic would continue, under its safeguards support programme, to provide cost-free experts, to develop safeguards approaches and to demonstrate their feasibility under real operating conditions.

36. In order to maintain the credibility of safeguards, it was essential for apparent contradictions, which could only be understood by a small number of experts, to be avoided in reports on the application of safeguards. Above all, it was necessary to define realistic safeguards goals which could be attained, even for complex plants, in the course of normal operation and with a reasonable volume of inspection work.

37. The conclusion of a safeguards agreement between the Agency and the People's Republic of China was to be welcomed. All nuclear-weapon States had now submitted some of their installations to Agency safeguards through voluntary offer agreements. That was an important confidence-building measure, and his delegation called on all nuclear-weapon States to place an even greater number of high technology installations under safeguards. It also urged all non-nuclear-weapon States to submit all their nuclear activities to Agency safeguards, as the Federal Republic of Germany had done.

38. Nuclear safety remained an important area of the Agency's activity. The speedy and smooth functioning of international co-operation in the field of nuclear energy had been demonstrated following the radiological accident in Brazil the previous year. His Government had helped alleviate the consequences of the accident by sending experts and equipment. It was against that background that his Government appealed to all Member States to sign the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency.

39. His delegation hoped that an equally close network could be set up in the area of nuclear liability. It was a great achievement that a conference for signing a Joint Protocol linking the Paris and Vienna Conventions could now be held. His delegation would sign the Joint Protocol and called on all parties to the two liability conventions to do the same. It would be very desirable for more States to accede to one or other of the two conventions and for attempts to continue to be made to determine realistic amounts for liability limits; in fact, nuclear liability provisions should be commensurate with the actual amounts required to compensate for damage.

40. Concluding his comments on safety, he expressed his appreciation of the revised NUSS Codes and the hope that all Member States concerned would use those codes as a basis for their national legislation. The third operational safety review team (OSART) mission had been successfully carried out in the past year in the Federal Republic of Germany. The great demand for those missions was proof of the confidence Member States had in the Agency's expertise.

41. His country attached great importance to the Agency's technical assistance activities. It commended the Secretariat on its work under that programme, which it would like to see implemented in an even more efficient manner. His country fully supported the Agency's technical assistance programmes, and had for a number of years been among those States which had made the largest extrabudgetary contributions. The previous year, it had again supported the technical co-operation programme by providing experts as well as funds for fellowships, equipment, training programmes and scientific

meetings, partly within the framework of footnote-a/ projects. Subject to parliamentary approval, his Government pledged to contribute its share to TACF for 1989 and to make available additional extrabudgetary funds.

42. Returning to the financial crisis, he recalled that there was a contradiction between Member States' statements concerning the indispensable nature of the Agency's work and their attitude to the payment of their contributions. The laudable efforts made by the Secretariat to mitigate the consequences of that problem would not eliminate its causes. The situation was becoming ever more critical and, while a scarcity of resources might have a certain stimulating effect, a shortage of funds might result in a paralysis which would prevent the Agency from carrying out its most important tasks - to the detriment of all, including those States which were the slowest in paying their contributions. His delegation therefore appealed to the goodwill and sense of responsibility of all the Agency's Member States in that matter.

43. Mr. MORPHET (United Kingdom of Great Britain and Northern Ireland) said that the Agency's Annual Report for 1987 recorded in considerable detail the valuable services which the Agency provided, without which confidence in the orderly development of civil nuclear power would be severely weakened. The importance of the Agency's task in that sensitive area could scarcely be exaggerated. The need for a truly comprehensive international system continued to be vital; the Agency had a dynamic task in that respect, which it had carried out creditably during the year under consideration.

44. The report drew attention to the long commitment of his country, amongst others, to the development of civil nuclear power, which was demonstrated by the energy options it had selected over the past 30 years. Notwithstanding his country's wealth in fossil fuels, his Government was determined to diversify the sources of electricity generation and to continue the modernization of its nuclear generating capacity. The construction of the plant at Sizewell was ahead of schedule, the planning inquiry for a second PWR at Hinkley was to open the following month and a third PWR at Wylfa was being planned.

45. Moreover, plans for the privatization of the United Kingdom's electricity supply industry had taken shape. The total production capacity was to be divided between two competing companies. Under the legislation which was being prepared for that purpose a specified proportion of the electricity produced had to be generated from non-fossil fuel so as to ensure the future of nuclear power and renewable sources of energy. The precise proportions were still under consideration; however, the figure for the year 2000 would not be below the present level of existing or committed nuclear and renewable generating capacity.

46. Continued development of nuclear power carried with it the need for supporting research and development work on the safe and economic exploitation of reactor systems, together with their associated fuel cycles, including waste management. Particular attention was being paid in the United Kingdom programme to: the man-machine interface; accident management strategies; monitoring and controlling the exposure of workers and the public to radiation from nuclear plants; radioactive waste management, nuclear materials management, including decontamination and decommissioning; and safeguards. The research activities undertaken in his country were of special interest not only in terms of safety and economic benefits but also because they were important for public acceptance of nuclear power.

47. The United Kingdom recognized the particular importance of the last point; there should be a combination of openness and an active campaign of public information. The Sizewell inquiry report proposed that guidelines, based on public opinion, should be formulated and published on the tolerable levels of individual and social risk from nuclear power stations. The Health and Safety Executive had recently published a document on tolerability of risk from such stations. It showed how the matter was regulated in the United Kingdom and explained to the public the nature of the risk from radiation and how that risk was calculated when deciding to license nuclear installations. It also outlined the important factors which were taken into consideration in evaluating industrial risks. The public had been invited to comment and those comments would be published. The foregoing illustrated the fact that in his country experts alone were not the final judge and that society as a whole took decisions in matters which concerned it, including the

tolerability of risk. Given the world's mutual interdependence in nuclear matters, the subject deserved to be discussed at the international as well as the national level.

48. It was unfortunate that much of the debate on nuclear power was based on ignorance or misunderstanding. It was therefore important that society should be as well informed as possible, particularly about radioactivity. If the public were more aware of the relatively high levels of natural radiation to which everyone was exposed, they would realize that a very small contribution was made to that radiation by the nuclear industry.

49. The effects on human health of low-level radiation were a source of growing public concern, which his country did not underestimate. In the United Kingdom there had been particular emphasis on apparent clusters of leukaemias around nuclear installations. Various studies carried out over the preceding five years had looked at areas around nuclear plants rather than at the wider distribution of the disease. Those studies had been inconclusive thus far, although it was clear that the levels of radiation associated with those plants where excesses of the disease had been found could not, in the present state of knowledge, have caused the abnormally high incidence.

50. Laboratories in the United Kingdom were continuing research on the causes of leukaemia and the effects of low-level radiation. Meanwhile, the nuclear industry was being encouraged to familiarize people with its activities and with the general concept of nuclear power. The Atomic Energy Authority was particularly active in getting information across (educational programmes including publications, videos and visits).

51. Amongst the major factors affecting public acceptance in all countries was the question of ultimate disposal of nuclear waste. In the United Kingdom, in particular, there was concern about the progress of new waste disposal facilities. A decisive step forward had been taken in November 1987 with the opening of public discussion on the proposed solutions. The three technological solutions considered (deep burial under land, deep burial beneath the seabed with access from a coastal land base and deep burial beneath the seabed with access from an offshore structure) had been explained, together with the geological and hydrological data. Many comments had been

received on the appropriateness of the technologies suggested and on the importance of the various factors which had to be considered in selecting sites. All those comments were being evaluated, and recommendations were shortly to be submitted to the Government.

52. Another question of increasing concern was the decommissioning of nuclear plants. In that matter, too, the public needed to be shown that responsible policies were being pursued. In the United Kingdom, decommissioning of nuclear stations would be carried out in three stages: first, complete removal of fuel, which could take up to five years; second, removal of ancillary equipment, which could take up to another ten years; as for the last phase, the timescale was not precise, but it was envisaged that 50-100 years would be needed to allow radioactivity to decay to the point where final demolition could be carried out. Incidentally, it was perhaps not too fanciful to suppose that there might be some pressure to preserve the occasional structure for posterity!

53. Safety assessment of ageing plants had attracted much attention in recent years. In his country, reviews of long-term safety were carried out by operators after about 20 years of operation. The competent authority examined the results of those reviews and indicated to the operator what improvements and other safety validation work were required if operation was to continue for some further years. The details of the review were published, together with the regulatory body's recommendations and the timescale of the measures to be implemented, if the plant was to continue in operation. The operator then had to take an economic decision whether to make those improvements and continue operation, or to close the station. An operator had recently decided in favour of making the investment required for operation to continue at the Bradwell plant, which had been operating since 1962. In another case, the operator had decided against doing so. Subject to careful continuing assessment, there was no reason for decommissioning older power stations which were operating safely and effectively. In that conection, he pointed out that the Agency had been invited to send an operational safety review team (OSART) to a plant whch had begun operation in 1967.

54. His Government was determined that in its plans to privatize the electricity supply industry the safety of nuclear power stations should remain paramount. A sound regulatory regime was the best guarantor of safety, and regulatory and safety standards would be enforced just as vigorously in the future as they were at present.

55. The United Kingdom had emphasized the benefits to be secured through greater international contact between regulatory authorities at the special session of the General Conference in 1986, and had advocated a three-stage approach. The first stage was the updating of the Agency's database on regulatory practices in Member States; in that connection, his country had been glad to assist in the formulation of a questionnaire and in analysing the resulting information. The second stage was the establishment of a continuing programme to exchange views on best practices, and in that regard he welcomed the conference to be held in Munich in November of the current year. The third stage would be peer review of regulatory procedures with possible co-ordination by the Agency.

56. His country attached considerable importance to the safety activities of the Agency. During the preceding year the United Kingdom's Chief Inspector of Nuclear Installations had acted as Chairman of the NUSS Advisory Group charged with revising the NUSS Codes to bring them into line with the latest thinking. His country had also made a major contribution to the work of the International Nuclear Safety Advisory Group (INSAG) and in particular to the development of basic safety principles. It would continue to offer assistance in that valuable work.

57. He welcomed the progress made by the Agency in widening the coverage of the third-party liability conventions; his Government would be signing the Joint Protocol on 21 September.

58. The application of an effective system of safeguards was a corner-stone of public acceptance of the nuclear industry and of nuclear co-operation. Nuclear technology continued to move forward. It was important that safeguards techniques should keep pace with those developments. New technologies - in enrichment and reprocessing, for example - required new

safeguards approaches. The United Kingdom wished to ensure the development of effective safeguarding arrangements for large-scale commercial reprocessing plants, and a large part of its safeguards research and development support programme was therefore devoted to assisting the Agency to develop appropriate techniques in that area. It would participate fully in an exercise to identify the range of safeguards methods which could be applied to such reprocessing plants. The hexapartite safeguards project, which had resulted in internationally acceptable safeguards approaches for enrichment plants, provided an encouraging example of what could be done. He hoped that the discussions on reprocessing plants would have equally satisfactory results.

59. The United Kingdom would continue to play an active part in other areas of safeguards. Its safeguards support programme included the testing of seals and the development of measurement methods, where work was concentrating on the use of in-line measurement systems rather than the conventional sampling approach. The provision of cost-free experts, reference material and training courses also featured in the programme. A course on reprocessing plants and the techniques available to safeguard them would be offered the following year. His country would continue to offer its support and to assist the Agency in keeping abreast of new developments.

60. The public must be assured that nuclear material was not being diverted from peaceful to military uses. The resources needed to back up that assurance were not unlimited. The record of the Deputy Director General for Safeguards and his staff was one of achievement, and they were to be commended on the positive and innovative approach they had shown in developing the implementation of safeguards and in continuing their search for efficiency gains. There had been some encouraging increases in inspection goal attainment, while the development of more sophisticated equipment and methods and the flexible approach of safeguards inspection teams should lead to further improvements.

61. Having consistently supported the Agency's technical assistance activities by pledging and paying in full its contribution to TACF, the United Kingdom had again pledged its contribution to that Fund for 1989. It had likewise continued to make an extrabudgetary contribution to

footnote-a/ projects and had funded a number of fellowships in its institutions. In the current year it had also underlined its support for the work of the Department of Technical Co-operation by funding two project management courses. He commended the constructive approach of all Member States in reaching agreement on indicative planning figures for the years 1990-92.

62. While the need for Member States to work closely with the Agency would be greater than ever in the years ahead, resources were limited. The Director General and his staff were fully aware of the importance of improving efficiency and cost-effectiveness, and his delegation was looking forward to the results of the studies currently under way. The United Kingdom wished to assure the Director General and his staff of its full support in their demanding work, and to congratulate them on their achievement during the preceding year.

63. Mr. CAPRON (France) recalled that the previous session of the General Conference had marked the 30th anniversary of the Agency. It was largely the preparations for the future that his present statement would deal with. Everything was making societies discard short-term policies and that was particularly true in the energy field. Everything was inducing them to take account of the realities of tomorrow in making their choices for today. And it was first and foremost the demographic outlook that was encouraging that approach.

64. The world's population, which had doubled to 5000 million in only 20 years, would have doubled again by the middle of the following century unless there was a serious epidemic or a generalized conflict. Mankind was thus going through a period of unprecedented population growth.

65. The population of the industrialized parts of the world, which at present consumed three quarters of the world's primary energy, would remain stable. It was the least developed regions which would be affected by that growth. Such energy savings as were still possible in the industrialized countries would certainly not compensate for the growth of demand in developing countries.

66. The energy resources were abundant but not inexhaustible. The next energy crisis might well be a consequence of failing to make plans sufficiently well in advance. It was important, therefore, to emphasize the need for energy policies based on a long-term view. That was true of oil and coal, but also of nuclear energy. Mankind simply could not afford to deny itself the use of all available sources of energy.

67. What was true for all countries of the world applied all the more to those where population growth was the highest. All leaders had to make their choice and to assume their responsibilities in the energy sphere. For lack of adequate manpower, financial resources and technological capacity, their options might be limited only to immediately available means of production. It was thus imperative to broaden their options by making nuclear power accessible to them under conditions which were acceptable to all. It was one of the tasks of the Agency to contribute to that process.

68. There was another reason for basing energy policies on a long-term view. The present generation had a responsibility to ensure that its descendants had access to abundant, reliable and cheap energy; it also had the duty to bequeath a wholesome environment to future generations.

69. To his mind, the cause of nuclear power should be pleaded on the basis of long-term arguments: protection of the environment should provide one of the main justifications and might in the future constitute the main argument for nuclear power. Even today, atmospheric concentrations of carbon dioxide, sulphur dioxide and nitrogen oxide were one of the major concerns not only of specialists but of the population at large. Given the risks involved, could further substantial increases in those concentrations be contemplated?

70. It was not enough to produce electricity, and energy in general, in sufficient quantities at reasonable cost. It was essential in addition to ensure that the growth of energy production did not imperil the natural environment and the health of the world's people. And yet, it was a fact that, where both national policy and international guidelines were concerned, tolerance levels were today far less demanding - from the standpoint of the environment and human health - for conventional power plants than for nuclear

power plants. That was demonstrated by the simple fact that the various national standards for sulphur dioxide were at present 100 times higher than the average natural concentration of that substance, whereas for radioactivity they were barely above the natural level.

71. That imbalance endangered efforts to reduce atmospheric pollution. Since Chernobyl everybody knew that the consequences of nuclear accidents had no frontiers. But what the public was less aware of was that conventional power plants in normal operation, especially when they were not equipped with desulphurizing devices, also had atmospheric effects which went beyond national frontiers - and lasted a long time, too. In that area as in others the Agency had an essential role to play - to establish, and where necessary re-establish, the truth. In that connection, his delegation had noted with the greatest interest the arguments advanced in July, in a speech at Sopron, by the Director General on the subject of "Electricity and the Environment". Those arguments were clear, precise and very much to the point.

72. Quite apart from its own convictions, his delegation noted that an increasing number of persons from different fields, who had in common only the desire to prepare for the future, believed that in the absence of any new scientific breakthrough - of which there was no indication at present - nuclear power offered one of the few ways now available of meeting the growing demand for energy without creating any major ecological imbalance.

73. In order to meet the double challenge of population growth and ecology, States would have to have the necessary will, although national efforts alone would not be enough. It was not only useful but desirable to make a common effort, and in the nuclear field, as in many others, national sovereignty and international solidarity were by no means incompatible.

74. That was true in matters of safety. The place which nuclear power occupied in French energy policy was well known. France had always held the view that without a very high level of safety that commitment would be inconceivable. A demanding and rigorous safety policy was an obligation vis-à-vis both its own citizens and the international community. Even though France was convinced that, to be fully effective, regulatory functions in that

area must remain the responsibility of national authorities, it was nevertheless equally sure of the importance of international co-operation in that field.

75. The comparisons of experience and the exchanges of views made possible thereby could help to improve the level of safety for all. Because of its universality and the diversity of its expertise, the Agency played a decisive role in that regard. France would therefore continue to give its full support to the work of INSAG, which had performed an important task by defining general safety principles; to the NUSS Codes, revision of which had just been completed, and which constituted a body of reference material reflecting the consensus of international experts; and to the OSART programme, through which the Agency provided assistance - upon invitation - to those who wished to discharge their responsibilities in a more effective way.

76. The same close attention must be given to the management of radioactive waste, which was at the heart of public concern about the nuclear industry. A few simple ideas were worth recalling in that connection: a country developing a nuclear programme must resolve all the problems resulting from its decision to do so. That was why, in the matter of waste management, France had always refused to shift its responsibility on to others, or to let the burden fall on future generations. Accordingly, its policy was to store all its radioactive waste on French soil, under well-tried safety conditions and under stringent surveillance. It refused to store any of its radioactive waste in any other country. That issue could not be treated as an ordinary commercial transaction since it had too many moral implications on the international plane for there to be any hint of ambiguity. For that reason, the President of the French Republic had recently explained the position of his country to the President of the Organization of African Unity, mentioning in particular that it was up to individual States to find solutions to their waste storage problems which would not only protect the natural environment and the health of the general public, but which would also respect the sovereignty and dignity of States.

77. Finally, control over the peaceful utilization of the atom was essential. In that area, the Agency played a role in which it could not be replaced. Effective safeguards were an essential condition for international nuclear relations. They were also one of the bulwarks of public confidence. France was therefore pleased to note that in 1987 the Agency had again not detected any anomaly which would indicate a diversion of nuclear material subject to safeguards. With a view to improving the efficiency of safeguards, especially within the context of stringent budgetary constraints, France had recently had occasion to make a number of specific proposals, which had aroused some interest; no effort would be spared to ensure that they came to fruition. Thus, the Agency could be assured of France's continued support in maintaining the credibility of its safeguards.

78. One of the conditions for that credibility was undoubtedly that safeguards should not be allowed to be transformed into a means of applying pressure or imposing sanctions on any State. Safeguards were neither a punishment nor a reward, but a voluntary relinquishing of a part of national sovereignty in the collective interest represented by development of the peaceful uses of the atom. To attempt to use them for any other end would distort the purpose for which they had been designed, undermine the strength of the Agency's structure and run counter to the common objective, namely the elimination of the risk of nuclear-weapons proliferation. That difficult problem could not be solved by threats, nor by applying the law of the jungle, but by seeking to reconcile two imperatives: on the one hand, that of enabling countries that needed it to have access to the technology essential for their nuclear power programmes and for meeting their energy requirements; and on the other hand, that of guaranteeing the peaceful utilization of that technology through formal and internationally verifiable commitments which were compatible with the sovereignty of States.

79. It was not enough that the use of nuclear energy should appear to the national authorities as something technically possible, desirable or necessary. It was also essential that nuclear energy should be recognized as such by public opinion. Each country was different in that respect; each government made its decisions and responded to the expectations of its people

in its own particular way. As far as nuclear information was concerned, it should be possible to provide public opinion, which differed from country to country, with the means of understanding all aspects of nuclear energy, especially those which lent themselves to erroneous interpretation or tendentious exploitation. The information should therefore be presented in a form that was clear, understandable and accessible to the public and to the media.

80. With all those considerations in mind, France was pursuing its nuclear power programme. One of the outstanding characteristics of French energy policy was undoubtedly its continuity. It was well known that in the nuclear field the span of time between a decision and its final execution was at least a decade. Today, when the rate of growth of the French nuclear power capacity was diminishing substantially, as had been foreseen, the need to prepare for the future remained. For that reason, it was important to make good use of the investments approved and to focus efforts on the following:

- Design of reactors for the year 2000, including the development of fast reactors within the framework of European co-operation;

- Gradual introduction of mixed oxide fuel in reactors;

- Development of new uranium enrichment techniques. France hoped that its research on laser enrichment would result in substantial economic gains;

- Commissioning of new spent fuel reprocessing facilities at La Hague, the success of which was crucial to French nuclear policy;

- Storage of radioactive waste: operational capacity for low- and medium-level waste was already available. Where high-level waste was concerned, the theoretical and experimental work required for the construction of an underground laboratory was going ahead satisfactorily. The objective was to have an underground waste disposal centre in operation at the beginning of the twenty-first century.

81. For France, preparing for the future necessarily involved Europe as well. Its thoughts and its actions must henceforth be oriented towards the prospect of a single market in 1992. Nuclear energy was not only an asset for

France but also an opportunity for Europe - for its independence in matters of energy, for its economic competitiveness, for its technological level and for the protection of its environment.

82. The will of States, although necessary, was not sufficient to meet the international challenges which awaited the world community or to find lasting solutions to the complex problems which it would encounter tomorrow. That was so especially in the field of energy, where growth in demand, resource distribution and ecological requirements could lead to dangerous blind alleys. The Agency was fully aware of that. France would therefore continue to support the Agency with confidence in the success of its activities.

83. Mr. TETENYI (Hungary) observed that the present session of the General Conference was taking place against a background of promising developments in the international situation. The signing of the INF Treaty by the Soviet Union and the United States was an historical and, in the field of nuclear disarmament, unprecedented event. Of prime importance within the context of that Treaty was the strengthening of security both within Europe and throughout the world. Also, the Treaty constituted a real breakthrough of great psychological significance with regard to nuclear disarmament: its strict implementation should lead to further achievements in that field and might demonstrate that the peoples of the world could live in security even after the elimination of weapons of mass destruction. It would be highly desirable if future agreements on nuclear disarmament were to provide for nuclear material released as a result of such agreements to be transferred to the civilian sector and used for peaceful purposes in accordance with NPT and the Agency's safeguards regulations. His delegation was convinced that the Agency's experience in the field of safeguards - and particularly its inspection activities - helped in a significant way to raise public confidence, and that in certain respects its work had become a fertile example not only for nuclear disarmament agreements, but also for other types of disarmament agreement.

84. Twenty years had passed since the signing of NPT, the provisions of which were still regarded as crucially important instruments in the limitation and eventual elimination of nuclear weapons. The Treaty had on the first day

been signed by no fewer than 61 States, including Hungary. In that connection, he recalled that a Hungarian scientist, Bruno F. Straub, who was currently President of the Presidential Council of Hungary, had made a substantial contribution to the elaboration of the Agency's safeguards system. Also, he wished to congratulate the Agency and China on having concluded an agreement which placed a number of Chinese civil nuclear facilities under Agency safeguards. That would undoubtedly contribute to the universality of the Agency's safeguards system.

85. The experience of the previous 20 years or so had confirmed the importance of NPT and had shown how it could be further improved and made more effective through the Agency's co-operation and safeguards activities. The conference that was due to take place in 1990 to review the Treaty would be crucial from the standpoint of strengthening its universality, since the reality of the nuclear age was that every country must shoulder part of the responsibility for promoting peace and security, reducing international tension, limiting arms and achieving disarmament. In that connection, Hungary welcomed Spain's adherence to the Treaty and the recent decision by Saudi Arabia to do likewise.

86. His delegation noted with satisfaction that, according to the Annual Report for 1987 and the Safeguards Implementation Report for 1987, the Agency had not detected any misuse of nuclear materials and facilities under safeguards. That was a very encouraging conclusion for all and demonstrated just how unsubstantiated were the accusations recently made by certain press organs concerning the alleged ineffectiveness of the Agency's safeguards. In order to prevent misinterpretations and to enhance public awareness of the Agency's safeguards activities, a permanent and effective dialogue should be maintained with the media.

87. In accordance with its Statute and its responsibilities under NPT, the Agency was required to do everything in its power to strengthen and improve safeguards. However, its increasing activity in that area need not necessarily result in increasing expenditures. In that connection, his delegation welcomed the new safeguards criteria for 1988, which enabled the Secretariat, in certain cases, to decide upon the frequency of inspections.

Expenditures could be considerably reduced by making better use of inspectors, in which connection he recalled that his Government had responded favourably to the Director General's appeal and had waived its right to be consulted prior to the designation of inspectors to Hungary. He noted with satisfaction that a number of countries had recently taken similar decisions, and hoped that others would follow that example.

88. The year 1987 had been marked not only by the 30th anniversary of the founding of the Agency, but also by the efforts made by the Agency and the world nuclear community in general to restore public confidence in nuclear power, which had been seriously shaken in 1986. The results of those efforts were clear to all in that no nuclear power plant construction project had been cancelled. It was gratifying to see that the world's installed nuclear capacity had continued to increase. The last of Hungary's 440 MW(e) pressurized-water reactors, situated in Paks, had been connected to the grid at the end of 1987. The next reactors, now at the planning stage, would also be pressurized-water reactors, with a capacity of 1000 MW(e). In 1987 nuclear power had accounted for over 39% of the electricity generated within the country.

89. His delegation attached great importance to the Agency's nuclear safety activities and strongly supported the expanded programme in that area. Those activities should be continued, particularly in those areas in which they helped directly to enhance public acceptance of nuclear power, since a certain degree of mistrust undoubtedly persisted. The annual report gave a clear picture of the work done by the Agency to increase nuclear safety. Hungary had always considered studying and learning from the safety-related activities and experience of the Agency and its Members to be of vital importance and was firmly resolved to continue and strengthen its practices and policy, in that respect in the future. All aspects of nuclear safety must be taken seriously not only in the case of nuclear power plants, but also in all areas of the peaceful utilization of nuclear energy. For the past 35 years, therefore, Hungary had maintained detailed records of the radioisotopes used within the country, so as to keep constant track of their whereabouts. That was particularly important in a country which handled almost 40 000 transactions involving isotopes every year.

90. Hungary acknowledged the international importance of nuclear safety and had therefore ratified the Conventions on Early Notification and Emergency Assistance the previous year. It had also concluded a bilateral agreement with Austria on mutual notification in the case of an accident. His delegation was gratified to note the effective support given by the Agency in 1987 to Member States' efforts in the field of nuclear safety. The Agency should continue to do so in the future, since that would facilitate public acceptance of nuclear energy.

91. Another aspect of safety was the physical protection of nuclear materials. Hungary was party to the relevant convention, believing that, given the increasing quantities of nuclear materials in Member States, close attention should be paid to the protection of such materials and preventive measures against terrorist attacks should be adopted. International obligations should be established in that regard.

92. With regard to the matter of liability for nuclear damage, steps should be taken by the Agency, together with interested Member States, to work out a comprehensive convention covering both civil and State liability.

93. Multilateral technical co-operation activities were a corner-stone of the Agency's programme. The Director General's report on those activities for 1987 showed that the Agency had successfully taken further steps to improve the effectiveness and efficiency of technical assistance. The evaluation of various aspects of the Agency's technical co-operation activities had helped to improve the quality of programme implementation.

94. Hungary was making increasing contributions to TACF and had decided to pledge a voluntary contribution of 4.8 million forints to the Fund for 1989. His Government continued to be satisfied with the effective use made by the Agency of Hungary's local currency contributions.

95. In conclusion, his delegation expressed its satisfaction with the Agency's activities, approved the Annual Report for 1987 and supported the suggestion that that document be disseminated in a form which would make it accessible to a wider public.

96. Mr. BRADY ROCHE (Chile) called upon all Member States to show goodwill and to work together towards a consensus on the various matters to be considered during the General Conference, and to be guided solely by the desire to achieve tangible results that would serve the Agency's objectives and increase the contribution made by nuclear energy to peace, health and prosperity throughout the world.

97. That was the spirit in which Chile itself had undertaken a number of activities during the previous year, not only at the national level but also on a regional basis through its active participation in the ARCAL programme.

98. At the national level, various isotope and radiation techniques had continued to be used in medicine, agriculture, mining and hydrology, thereby making an effective contribution to the production and research sectors. With regard to nuclear safety and radiation protection, Chile had continued to draw up, review and refine its present regulations. It had also assumed the responsibility of organizing a course on radiation protection and quality control in odontology, with the valuable assistance of experts from Brazil. With regard to nuclear materials, Chile had made considerable progress over the previous year in the treatment and storage of liquid and solid radioactive wastes arising from studies or research work within the country.

99. Chile had also made progress with the development of processes for the fabrication of the structural parts of fuels for materials testing reactors as well as with all the dimensional inspections and destructive and non-destructive tests. For 1989, it had set itself the task of converting one of its research reactors from high- to medium-enriched fuel, the corresponding studies and calculations for which had already been successfully completed.

100. At the regional level, Chile had made a significant contribution to training and co-ordination activities under the ARCAL programme and other programmes sponsored by regional bodies such as the Inter-American Nuclear Energy Commission (IANEC) and the Latin American Institute for Agriculture. Specifically it had organized a course on food irradiation techniques, a course on the utilization of bulk reagents for radioimmunoassay and a workshop on the use of irradiation for quarantine purposes.

101. As it had announced at the thirty-first session of the General Conference, Chile had agreed, to serve as the pilot centre for the nuclear information project established under the ARCAL programme. The past year had seen the establishment of that centre, which it was hoped to have fully operational by 1990. Also within the framework of ARCAL, Chile was responsible for drawing up, as part of a co-ordinated research activity, a questionnaire on the application of the Convention on Early Notification of a Nuclear Accident and of the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency. Convinced as it was of the importance of the ARCAL programme for the development and progress of nuclear activities in Latin America, Chile reiterated its full support for all ARCAL projects and its willingness to participate in them and to put at their disposal all its human and material resources. It was always happy to receive fellows from the region in its establishments. He wished to thank the Agency once again for the interest it had shown in that programme, which was of such importance to the countries of the Latin America region, and to express his gratitude to the donor countries for their valuable economic support, which had been a major factor in the achievement of the goals of the ARCAL programme. There was, however, still a long way to go, and the programme would require greater financial resources. Chile therefore urged Member States to seek with the Agency a formula which would make it possible to implement as many as possible of the activities planned.

102. Turning to specific agenda items, and first to the question of measures to strengthen international co-operation in nuclear safety and radiological protection, he stressed the importance of the Joint Protocol linking the Vienna and Paris Conventions, which would strengthen the current international regime concerning liability for nuclear damage and would encourage a greater number of countries to accede to the two conventions. Chile had recently signed the Vienna Convention on Civil Liability for Nuclear Damage, and it would also sign the Joint Protocol in the firm conviction that the system governing such a delicate subject should be a universal one involving all States. His country would also continue to co-operate with States interested in establishing an international regime for State liability in the case of a nuclear accident. The time had come to tackle that issue, consideration of

which should be entrusted to an expert group. That group should co-operate closely with the International Law Commission, which had been studying the question of the international liability of States for more than ten years and whose work provided a frame of reference for the formulation of very precise concepts such as those relating to nuclear damage.

103. With regard to the Agency's contribution to sustainable development, his delegation was pleased to note that the institutions and organizations of the United Nations system intended to take into account in their policies and programmes the need to achieve harmony between national development and environmental protection.

104. As to the Agency's programme and budget for 1989 and 1990, the difficulties encountered during the current year had stemmed from the opposing interests of countries with different levels of development. The preferential treatment accorded to safeguards at the expense of the Agency's promotional activities - which were of vital importance to the developing countries - was a matter of concern at the meetings of the Administrative and Budgetary Committee in May, and subsequently at those of the Board of Governors in June, Chile had co-sponsored, in co-operation with the Group of 77, a number of proposals which it considered necessary in order to reverse that trend and to achieve a balance in the distribution of resources among the Agency's various programmes. He therefore hoped that in the years to come the Agency's major statutory objectives would all be accorded equal significance.

105. As in previous years, Chile stressed the need to find a formula which would ensure reliable and predictable financing for technical co-operation activities. That was already the case for safeguards activities, which were financed entirely from the Regular Budget. Recipient countries would then be able to submit multi-year technical assistance projects with the possibility of their being approved.

106. With regard to the item entitled "Staffing of the Agency's Secretariat", his delegation noted with satisfaction the efforts made by the Secretariat to implement General Conference resolution GC(XXV)/RES/386, the aim of which was to increase the representation of nationals of developing countries within the Secretariat.

107. He wished to congratulate the Director General and the Secretariat on their work over the previous year. However, it was a matter of concern that there had been no rapprochement among the different opinions held within the Committee on Assurances of Supply (CAS), despite the fact that a compromise was urgently needed so as to ensure the uninterrupted utilization of nuclear technology in countries which required it.

108. In conclusion, Chile reiterated its support for the peaceful uses of nuclear energy, even though it possessed other natural resources such as hydroelectric resources, coal and other fuels for electricity production which for the time being obviated the need for it to utilize nuclear energy for that purpose. It was worth recalling in that context that there were numerous criteria other than power production for assessing a country's level of nuclear development.

109. Mr. HAVEL (Czechoslovakia) expressed the conviction that the current session of the General Conference would make a significant contribution toward strengthening international co-operation in the utilization of nuclear energy for exclusively peaceful purposes, and toward giving form and vigour to the idea of a non-violent, denuclearized world. That belief was, of course, based on the positive changes that the world had recently experienced on the political level. A decisive element in that improvement was the new quality of the relations and the dialogue which now existed between the Soviet Union and the United States. Czechoslovakia was very keen for the peace policy to succeed, since it saw in it assurances for its own present and future. It was with that objective in view that Mr. Jakes, General Secretary of the Czechoslovak Communist Party, had proposed on 24 February 1988 the creation of a zone of confidence, co-operation and good neighbourliness between the countries of the Warsaw Pact and NATO.

110. It was no exaggeration to say that the idea of broad international dialogue and all-round co-operation had for several years been a reality within the Agency, where it represented the fruit of a common effort which had been pursued despite certain differences of opinion. The results obtained by the Agency during the previous year, as shown in the annual report and as indicated by the Director General in his opening statement, bore witness to that. Of particular note was the continuing implementation of the Soviet

proposal for the establishment of an international regime for the safe development of nuclear power, and of other measures aimed at strengthening international co-operation in nuclear safety and radiation protection. His delegation was satisfied with the efforts being made to revise the NUSS Codes, in which Czechoslovak experts were participating actively. It welcomed the elaboration by INSAG of basic safety principles which constituted useful and practical recommendations for Member States that were formulating or upgrading their technical policies in the nuclear safety area. It actively supported the idea of a comprehensive solution to the problem of international liability for nuclear damage. The conclusion and signing of the Joint Protocol linking the Vienna and Paris Conventions would create a situation that was conducive to an early start to negotiations on the drafting of a new, wide-ranging international legal instrument covering questions of State liability.

111. With regard to the OSART programme, Czechoslovakia had commenced preparations to receive a mission at the Dukovany nuclear power plant in September of the following year.

112. The Secretariat was to be commended for having set up the permanent communications network necessary for the implementation of the Conventions on Early Notification and Emergency Assistance. It was Czechoslovakia's strong hope that the foundations of co-operation which had been established through those conventions - which were already of historic significance - would be expanded and would be supplemented by bilateral and multilateral agreements. Czechoslovakia was providing information on its nuclear power plants to its Austrian neighbour in a very open manner under an existing agreement between the two countries governing issues of mutual interest in relation to nuclear facilities; it was participating with equal openness in current talks on expanding such co-operation, thereby contributing to the establishment of good-neighbourly relations.

113. It was to be hoped that co-operation of that type would help put an end to unsubstantiated criticism and attacks on nuclear power of the kind that had been levelled, for example, by certain Austrian groups against Czechoslovak nuclear power plants. The operation of his country's nuclear power plants had always been marked by a high level of stability and reliability. In 1987 the

output of the eight units with WWER-440 reactors in service at Jaslovské Bohunice and Dukovany had been 22 215 GW.h, or 26.3% of the country's total electricity production. The excellent performance of those units was confirmed by their load factor, which varied between 71% and 86%, and also by the total number of unplanned outages, which amounted to 3.1 per unit per year. The construction of a further four WWER-440 units and four WWER-1000 units was proceeding according to plan.

114. His delegation was gratified to note that the Agency had not detected, in the course of its safeguards inspection activities, any violation by Member States of their safeguards obligations. The application of safeguards to nuclear materials was a high-priority task, and the Agency's safeguards system was an important part of efforts to prevent a nuclear war and generally to strengthen peace, confidence and co-operation throughout the world. Czechoslovakia was therefore concerned at recent trends which indicated that serious problems might arise in the near future. The nuclear industry had made great advances since the first inspection, but the safeguards system had not kept pace with those major qualitative changes. In short, although there had been progress, particularly on the technical level, the basic concepts and approaches had remained the same. Now, with the dawn of new political thinking on the international scene, conceptual changes should be made within the safeguards system, so as to enable it in the near future to respond - despite serious financial constraints - to the new political challenges regarding verification and inspection in connection with disarmament and the expanding use of nuclear energy. Two levels of inspection would be introduced. The first would involve inspections intended to identify possible anomalies, to be carried out unannounced and on a large scale. Should an anomaly be discovered, the second level would be brought into effect in the form of a verification inspection involving the thorough investigation of the area concerned, including the material balance.

115. Such an approach would make it possible to reduce the volume of the inspection work without diminishing the effectiveness of the safeguards system and to shift inspection effort from the less sensitive facilities to those requiring greater attention.

116. His delegation's interest in that area of the Agency's activities was motivated by the need for safeguards to remain a reliable instrument for strengthening the non-proliferation regime and enhancing the authority of NPT, the 20th anniversary of which fell during the current year. Czechoslovakia welcomed the conclusion of a safeguards agreement between the Agency and China, following a voluntary offer from that country to submit a number of its nuclear facilities to safeguards. It also welcomed Spain's accession to NPT, and would be extremely happy if other States, particularly those in areas of tension around the world, would follow that country's example. It was regrettable that, despite the efforts made by the Secretariat and the Director General, South Africa and Israel were still persisting in their negative and unconstructive attitude to the question of submitting their nuclear programmes to Agency safeguards, which the General Conference and the General Assembly of the United Nations had been requesting them to do for several years.

117. His delegation supported the draft programme and budget for 1989 and 1990 as submitted. The experience of the previous year had shown that the Agency's activities were adversely affected by the lack of discipline displayed by certain Member States in failing to meet their financial obligations. His delegation therefore associated itself with those which had called upon the Member States concerned to pay their contributions to the Regular Budget in full and in a timely manner.

118. His delegation supported the proposed target figure of US $42 million for contributions to TACF for 1989. His Government had decided to contribute to the Fund for 1989 an amount which fully corresponded to Czechoslovakia's base rate of assessment in respect of the Regular Budget. It was also offering to host two training courses in 1989, one on the operational safety of WWER nuclear power plants and the other on the development, production and use of radiopharmaceuticals.

119. The past year had demonstrated that the Agency deserved all the praise it had received on the occasion of its 30th anniversary. His delegation wished to commend the Secretariat, the Director General, and the Chairman of the Board, Mr. Loosch, for enterprising spirit and constructive approach they had displayed in tackling the many complex problems facing the Agency.

120. Mr. SITZLACK (German Democratic Republic) expressed his Government's appreciation of the work done by the Agency, which had helped strengthen international nuclear co-operation and had discharged its statutory responsibilities to the benefit of its Member States.

121. Technical co-operation was an area of the Agency's activity in which there had been much expansion in recent years. The agreement reached by the Board of Governors on indicative planning figures for the forthcoming three-year period was a prerequisite for continued expansion, but it was equally necessary to reverse the negative trend observed in recent years in the actual payment of voluntary contributions. That trend, together with other financial problems, had made it impossible to maintain the record implementation rate achieved two years previously.

122. His country paid its voluntary contributions to TACF on time, supplied equipment and material and provided training for scientists from developing countries. In 1987 his country had hosted two training courses and increased the number of fellowships and experts it provided.

123. During the past two years, most Member States which used nuclear energy to produce electricity had re-examined the nuclear option and many of them had reaffirmed their commitment to nuclear power. That was the case for his country, which, in accordance with its economic policy, would continue its nuclear power programme in order to meet its increasing energy needs. In implementing that programme, the highest priority would be given to nuclear safety and to the protection of man and the environment. His country was aware of the advantages of co-operation and of sharing experience, and therefore appreciated and fully supported the central role played by the Agency as an instrument for the promotion and implementation of international co-operation in nuclear safety and radiation protection. Regional co-operation was particularly important for members of the Council for Mutual Economic Assistance (CMEA), where standardized types of pressurized-water reactors were in use. The recently established Council of Nuclear Authorities of the CMEA countries, of which the German Democratic Republic was a member, was focusing its activities on nuclear safety issues. Lastly, since the

beginning of 1987 his country had concluded six new bilateral agreements concerning nuclear safety and the protection of man and the environment.

124. Absolutely safe conditions for the use of nuclear energy required effective nuclear safeguards and the physical protection of nuclear materials and installations. Agency safeguards provided the assurance that States were complying with their non-proliferation commitments and made a major contribution towards the creation of a climate of mutual confidence among States. It was gratifying to note that in 1987, as in previous years, the Agency had again been able to state that nuclear material under Agency safeguards had remained in peaceful nuclear activities or had otherwise been adequately accounted for. In order to enhance further the objectivity and reliability of that statement, the Agency and Member States should continue their efforts to improve the effectiveness and efficiency of the safeguards system.

125. He was pleased to note that China had signed a safeguards agreement with the Agency. In view of the importance of safeguards for the non-proliferation of nuclear weapons, his country would continue to support the Agency's safeguards system. In 1987 it had hosted two training courses, one for newly recruited inspectors and the other for trainees from developing countries. Activities of that kind were now carried out within the framework of his country's safeguards support programme, which, in the light of the forthcoming NPT Review Conference, was to be expanded by one third over and above the agreed level in its first year.

126. The question of the physical protection of nuclear materials was closely linked to safeguards. The Convention on the Physical Protection of Nuclear Material had entered into force, but much remained to be done, particularly with regard to the physical protection of nuclear installations.

127. The conclusion in Moscow 25 years previously of the Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water had been the first step towards a safer world. The signing of NPT 20 years previously had been another important event. Finally, the INF Treaty had inspired feelings of satisfaction and confidence the world over, and, together with the planned 50% reduction in strategic weapon arsenals, had marked the

start of nuclear disarmament. Further steps towards nuclear disarmament were necessary and possible. At their last meeting, the Warsaw Pact countries had reiterated their proposal for a total and universal ban on nuclear-weapons tests and had advocated the elimination of tactical nuclear weapons in Europe, including the nuclear components of dual-capable systems. An international meeting on nuclear-weapon-free zones held in Berlin in June had shown that efforts aimed at establishing additional nuclear-weapon-free zones were gaining in importance. The very fact that representatives of governments, parliaments and intergovernmental and non-governmental organizations had met was evidence of the existence of new thinking on how to prevent nuclear war. The Agency's active participation in that internationally important meeting was highly appreciated.

128. The conclusion of the INF Treaty was a successful step towards nuclear disarmament and could be the beginning of the transfer of significant amounts of direct-use nuclear material from military to peaceful applications. That might lead to an increase in the Agency's verification activities. Furthermore, it was conceivable that the experience gained by the Agency in applying safeguards would have an impact - direct or indirect - on other areas of verification.

129. As a result of the increasing industrialization of developing countries and the growth of the world's population, energy consumption would inevitably increase, thus making it necessary to broaden and expand existing energy resources. If environmental pollution caused by fossil fuels was to be substantially reduced, nuclear power must have a major place in that process. The Agency had an important role to play in that connection, and should extend its communication links to all organizations and institutions concerned with the peaceful uses of nuclear energy.

130. Mr. PANDEV (Bulgaria) said that the year which had elapsed since the thirtieth anniversary of the founding of the Agency had been marked by important political events. Firstly, an agreement had been concluded on the elimination of a whole category of intermediate- and shorter-range nuclear weapons and realistic conditions had been established for a 50% reduction in strategic nuclear weapons. The successes achieved in restraining the arms

race and reducing weapons arsenals gave grounds to hope that the twenty-first century would see a nuclear-weapon-free world. Those successes confirmed the importance of the new attitudes and the active and dynamic policy of the socialist countries and were a victory for realism in international politics. Bulgaria was ready to contribute to that noble cause. It should be recalled in that connection that his country was pursuing a policy of creating a nuclear-weapon-free zone in the Balkan Peninsula.

131. The NPT, which Bulgaria had signed twenty years previously, had played and continued to play a fundamental role in preventing the proliferation of nuclear weapons. One hundred and thirty-five countries were parties to that Treaty, and the necessary conditions were now in place for the Treaty to become genuinely universal. Also, the reduction of the threat of the destruction of humanity by the atom and the progress made towards settling various regional conflicts had created a more favourable climate for the future expansion of international co-operation in the peaceful uses of atomic energy.

132. His delegation had carefully studied the Annual Report for 1987 and was satisfied with the programmes carried out and the results achieved. The important work done by the Agency to strengthen nuclear safety and radiation protection included the revision of the five NUSS Codes, the new version of which had been adopted by the Board in June. Bulgaria was in the process of scrutinizing the Codes and hoped to announce soon that it could accept them as minimum binding safety standards.

133. The Agency's operational safety review team (OSART), analysis of safety-significant events team (ASSET) and radiation protection advisory team (RAPAT) programmes were very important, since they too contributed to greater nuclear and radiological safety. Bulgaria participated in the Agency's Incident Reporting System (IRS), which it considered to be a vital mechanism for training operating personnel and a model for international co-operation in the exchange of information on the operational safety of nuclear power plants.

134. His delegation was gratified to note the successes achieved in the area of technical co-operation. Bulgaria met its obligations to TACF regularly and in full, and its voluntary contribution included the provision of equipment as

well as of training for nationals of developing countries. Bulgaria was prepared to accept a greater number of Agency fellows in its scientific and economic organizations. Being also a recipient of technical assistance, his country wished to thank the Agency and particularly the Middle East and Europe Section, the Training Courses Section and the Fellowships and Training Section for their excellent work and very valuable assistance. In 1987, Bulgaria had received a radioactive waste management mission, whose conclusions and recommendations would serve as a basis for future technical co-operation projects.

135. Notwithstanding those positive results, his delegation was troubled by the fact that the co-operation programme was not universally supported, a situation which had worsened in 1987. The Secretariat should undertake a study to determine whether there was a link between the growth of the technical co-operation programme and the decrease in the number of Member States which contributed both to that programme and to the Regular Budget, and should submit its conclusions to the Board. The main means of further improving technical co-operation results were to enhance the quality of the services provided and to pay closer attention to national priorities.

136. The Agency's safeguards activities were of vital importance. He welcomed the efforts made to increase further the effectiveness of that activity and expressed his delegation's support for the Agency's safeguards programme. He wished to point out that safeguards goals were being fully attained in Bulgaria.

137. While he could approve the Agency's accounts, he was concerned at the non-payment or late payment by certain Member States of their assessed contributions. Any measure to improve the financial situation, no matter how good, could never be better than Member States fulfilling their statutory obligation to support their organization through their contributions. Bulgaria paid its contributions to the Regular Budget and to TACF in full and on time and called on all Member States to do the same.

138. Bulgaria could approve the Agency's programme and budget for 1989 and the scale of assessment proposed for 1989; also, it would pay to the TACF a voluntary contribution in local currency equivalent to US $67 200.

139. With regard to the staffing of the Secretariat any solution to the problem should be based on the Statute and should take into account the interests of all Member States. As far as the amendment of Article VI.A.2 of the Statute and the revision of Article VI as a whole were concerned, his country's views were well known. With respect to South Africa's nuclear capabilities, Bulgaria had noted with interest the results of the meeting between the depositaries of NPT and the South African delegation, but found it disappointing that, despite that meeting, South Africa had still not complied with the requirements of General Conference resolution GC(XXX)/RES/468 and with the relevant resolutions of the United Nations General Assembly. His country's position on that issue would depend on South Africa's attitude. Finally, in accordance with its Statute, the Agency should contribute to efforts to resolve the question of armed attacks on peaceful nuclear installations and to prevent nuclear terrorism.

140. Bulgaria's peaceful nuclear programme had continued to expand at a steady and rapid pace in 1987, during which year the Kozloduj nuclear power plant had produced almost 30% of the electricity used in the country. The fifth unit of that plant, which comprised a WWER reactor with a capacity of 1000 MW(e), had come into operation, and a sixth unit, also equipped with a WWER-1000 reactor, was under construction. A second plant equipped with the same type of reactor was under construction at a new site.

141. Bulgaria actively participated in the Agency's nuclear safety and probabilistic safety assessment programmes, and had taken a number of measures to improve both the safety of existing reactors and the qualifications of operating personnel. Those activities would be continued and, within the overall context of nuclear power development, priority would always be given to safety. In that connection, his Government had decided to receive an OSART mission at a Bulgarian nuclear power plant in 1990.

142. Bulgaria attached great importance not only to the development of nuclear power, but also to the applications of nuclear techniques in industry, agriculture, medicine and science. It was receiving Agency assistance in connection with the construction of an irradiation facility for sterilizing medical supplies, a charged-particle accelerator for polymer research, and a

neutron generator. In 1987, Bulgaria had organized an international seminar on the application of induced mutations in agriculture and had taken part in the Agency's food irradiation programme.

143. In conclusion, he wished to reaffirm his Government's appreciation of and support for the Agency's efforts to strengthen international co-operation in the peaceful uses of nuclear energy. He congratulated the Director General and his staff on the success of their endeavours and wished them further success in the future.

144. Mr. CHIKELU (Nigeria) said that an examination of the programmes and activities carried out by the Agency in 1987 showed that it had been a good year for the Agency. The annual report indicated that encouraging progress had been made in areas such as nuclear power - 22 nuclear power plants had come into operation in the world and 9 others were under construction. In the area of nuclear safety and radiation protection, the Agency continued to play an active role in strengthening public confidence in nuclear power. In the nuclear applications area, it was interesting to note that some 200 technical projects and 14 regional and interregional projects had been implemented in the food and agriculture sector in 62 developing countries. His delegation also noted that resources for technical co-operation activities in 1987 had increased by 5.5% over the previous year.

145. Despite the Agency's commendable efforts, many developing countries - particularly in Africa - were not yet benefiting sufficiently from its promotional activities. The Agency should make a deliberate effort to help those countries to ensure that they could take full advantage of the immense potential the Agency had to offer in the nuclear power and nuclear applications areas. In that connection, his delegation urged the Agency to send assistance and pre-project support missions to those countries. The Agency should also, as a matter of priority, tackle the problems faced by many developing countries in their efforts to acquire nuclear technology. Various constraints such as a lack of financial resources, inadequate infrastructure, a shortage of high-level specialists, restrictions on access to nuclear materials, equipment and technology and the low level of support for research and development had hampered the attempts made by developing countries to

establish nuclear power programmes. The Agency should therefore expedite its efforts to implement the recommendations of the senior expert group on the promotion and financing of nuclear power in developing countries.

146. In order to increase the impact of Agency assistance to and co-operation with African countries, present bilateral arrangements should be supplemented by a regional co-operation agreement for the African region, along the lines of the existing regional arrangements for Asia and the Pacific (RCA) and Latin America (ARCAL). The African region could then, within the framework of that agreement and with the Agency's effective help, really promote regional co-operation in nuclear applications. His delegation wished to thank the Deputy Director General for Technical Co-operation for having invited African Member States to a preliminary meeting on that subject during the current session of the General Conference, and expressed the hope that the Secretariat would ensure that the proposed regional agreement remained regional in both concept and implementation and that all participating African countries benefited from it.

147. Where nuclear safety and radiation protection were concerned, the Agency should help developing countries to build up the necessary infrastructure and capability to enable them to fulfil effectively their obligations under the Conventions on Early Notification and Emergency Assistance. Most of those countries needed assistance in enacting relevant radiation protection legislation, acquiring the necessary radiation monitoring equipment and establishing effective contact points. RAPAT missions should take due account of those needs, so that the Agency might subsequently tackle them in a serious manner.

148. Nigeria was one of the first States to have ratified NPT and had signed a safeguards agreement with the Agency at the beginning of the current year. That was an unequivocal demonstration of its interest in international co-operation in peaceful nuclear technology. Nigeria wanted to set up a nuclear energy technology centre and needed assistance from the Agency in the form of infrastructural support and the provision of equipment, expert

services, training and fellowships. It also required the Agency's help for new or existing national projects in its universities, research institutes and hospitals.

149. One technical co-operation project which had been an outstanding success was that concerning the eradication of the tsetse fly using the sterile insect technique. During the first phase of the project, which had been completed in 1987, the tsetse fly had been totally eradicated from an area of 1500 km^2. However, the proposal to eradicate the tsetse from an additional area of 12 000 km^2 in the next phase of the project at an estimated cost of some US $12 million had run into financial problems. There was a danger that the infrastructure already in place would deteriorate and that the area cleared of tsetse flies would be re-invaded. The enormous effort invested in that project in terms of both research and other resources must not be allowed to go to waste. His country therefore hoped that donors would come to the aid of that very important project, to which his Government was strongly committed and to which it had already devoted a great deal of resources.

150. Another matter of concern to his Government was the dumping of toxic wastes in developing countries by companies from industrialized countries. Nigeria which had been the victim of such dumping, had made its position on that subject known at the Board's meeting in June. Each shipment of waste to a Third World country was in a way a "time bomb". The international community should now take the necessary action to prevent the Third World from becoming a dumping ground for wastes, including nuclear waste.

151. It was against that background that African and other countries were presenting a draft resolution on that worrying problem. The African Group hoped that the General Conference would give a positive response to the proposals contained therein, which were aimed at strengthening the Agency's role in a potentially dangerous and delicate area where abuses could shake public confidence in nuclear energy. It was to be hoped that the draft resolution would be adopted by consensus.

152. Turning to the question of South Africa's nuclear capabilities, he recalled that resolution GC(XXXI)/RES/485 requested the Director General to continue to take all possible measures to ensure the full implementation of resolution GC(XXX)/RES/468, which - inter alia - called on South Africa to submit forthwith all its nuclear facilities and installations to Agency safeguards. The resolution also stated that the continuation of South Africa's policies in disregard and in violation of the purposes and principles of the United Nations, upon which, in accordance with Article III.B of the Statute, the Agency activities were based, constituted a persistent violation of the provisions of the Statute within the meaning of Article XIX.B.

153. The Director General had announced to the Board at its meetings in February and June that no progress had been made in his negotiations with South Africa on the implementation of the resolution. The Note by the Director General on that question contained in document GC(XXXII)/844 also indicated that no progress had been achieved. South Africa's racist régime had once again clearly demonstrated the contempt with which it treated the Agency's resolutions.

154. South Africa's policies constituted a violation not only of the Charter of the United Nations, but also of the Agency's Statute. They included subjecting the black population to the inhuman system of apartheid and denying it any basic rights. South Africa was the only country where the system of government was based on institutionalized racism. It was for that reason, that the United Nations General Assembly, in resolution 41/35B, had called on all United Nations organizations to exclude South Africa and, in resolution 42/23C, had urged the Security Council to take immediate action under Chapter VII of the United Nations Charter and to apply comprehensive and mandatory actions against South Africa.

155. In June 1987, the Board had recommended that the General Conference suspend South Africa from the exercise of the privileges and rights of membership in the Agency. It had taken that decision after carefully considering both South Africa's consistent refusal to comply with various Agency resolutions and that racist régime's policy of apartheid, which ran counter to the purposes and principles of the United Nations. His delegation

was adamant that the General Conference should adopt the Board's resolution and deprive South Africa of its membership rights, thus following the example of many other international organizations.

156. South Africa had recently made some diversionary moves in an attempt to convince the rest of the world that it intended to accede to NPT. Nigeria would not be fooled by that ruse and wished it to be clearly understood by all countries that none of South Africa's recent initiatives was genuine.

157. The NPT was open to any country which wanted to accede to it: there was no need to deliberate or to hold consultations on that matter. The procedure that the racist régime was currently engaging in - namely announcing its so-called intention of signing NPT - was therefore completely unnecessary. Consultations or negotiations with the three Depositary States or Permanent Missions were simply a diversionary manoeuvre. The issues South Africa was discussing were extraneous to the Agency's work and outside the terms of the various resolutions adopted by the General Conference. Accordingly, the Agency should suspend the racist régime of South Africa, whose policies were a gross violation of the objectives and principles of the Agency's Statute. That action would strengthen the stature and credibility of the Agency.

The meeting rose at 6.10 p.m.