International Atomic Energy Agency

GENERAL CONFERENCE

GC

GC(XXIV)/OR.219
February 1981*
GENERAL Distr.
ENGLISH

TWENTY-FOURTH REGULAR SESSION: 22-26 SEPTEMBER 1980

RECORD OF THE TWO HUNDRED AND NINETEENTH PLENARY MEETING

Held at the Neue Hofburg, Vienna
on Monday, 22 September 1980, at 10.35 a.m.

Temporary President: Mr. SETHNA (India)
President: Mr. HAUNSCHILD (Federal Republic of Germany)

CONTENTS

*/ A provisional version of this document was issued on 26 September 1980.

**/ GC(XXIV)/626.

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

80-6271

OPENING OF THE SESSION

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

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

All present rose and stood in silence for one minute.

3. The TEMPORARY PRESIDENT welcomed the delegates, observers, representatives of the United Nations and its specialized agencies, and representatives of other intergovernmental and non-governmental organizations. He said he would like to convey their gratitude to the Government of Austria for once again making available the Hofburg Palace. He also thanked everyone present for the co-operation they had extended to him during his presidentship of the twenty-third session of the General Conference and expressed his Government's gratitude for the messages of appreciation received after the session in New Delhi.

ELECTION OF THE PRESIDENT

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

5. Mr. PECQUEUR (France) said that, as co-president of the West European group, he had great pleasure in proposing Mr. Haunschild, delegate of the Federal Republic of Germany and State Secretary of the Federal Ministry for Research and Technology, as President of the twenty-fourth regular session of the General Conference. At a time when the world was facing a serious energy crisis, it was important that the meetings of the Conference be presided over by a man of experience and international standing. Mr. Haunschild, who had been active in various Federal posts and also in the Agency, EURATOM, the OECD and CERN, amply met those requirements.

6. Mr. COSTA-ALONSO (Mexico), speaking on behalf of the Latin American group, said it gave him great pleasure to support the nomination of Mr. Haunschild.

7. Mr. NIMPUNO (Indonesia) said that he believed Mr. Haunschild was the right person to ensure the success of the present session of the General Conference. On behalf of his delegation and the Asian regional group, he expressed support for his nomination.

8. On behalf of the North-American regional group, Mr. SMITH (United States of America) said he was happy to second the nomination of Mr. Haunschild.

9. Mr. OSZTROVSZKI (Hungary) supported the nomination on behalf of the European socialist countries.

10. Mr. Haunschild (Federal Republic of Germany) was elected President of the General Conference for its twenty-fourth regular session by acclamation.

11. The TEMPORARY PRESIDENT said that on behalf of everyone present he extended congratulations to Mr. Haunschild. Mr. Haunschild was no stranger to the Agency and the international community as he had led the delegation from the Federal Republic of Germany to the General Conference for many years. The success of the present session was assured in his safe and capable hands.

12. Mr. Haunschild (Federal Republic of Germany) took the Chair.

13. The PRESIDENT thanked the delegates for electing him as President of the General Conference and expressed his appreciation to the distinguished delegate of France for his kind words and to the delegates of Mexico, Indonesia, the United States and Hungary for their support.

14. In taking the Chair he was aware of the high standard set by so many outstanding predecessors, in particular Dr. Homi Sethna, who had acted as both host and President to the previous session of the General Conference. On behalf of all delegates, he wished to thank him and his country once more for their gracious hospitality in New Delhi.

15. The energy question remained a topic of the highest importance for all economies. Nuclear energy continued to be recognized as one of the few energy sources available which could make a meaningful and even an essential contribution to meeting world energy needs in the decades to come. The Agency had played an important role for almost a quarter of a century in fostering the peaceful uses of atomic energy and had become a forum for the international debate on questions of nuclear policy, particularly with regard to the assurance of supplies and the non-proliferation of nuclear weapons. It was gratifying that the Agency, through the wise and determined use of its possibilities, had acquired world-wide recognition and confidence. At a time when Member States were striving for the renewal of consensus in international nuclear relations, it was good to know that such a solid platform existed.

16. The programme and budget of the Agency underlined traditional priorities but also showed a growing awareness of the importance of nuclear safety. Technical assistance as well as safeguards would continue to be among the priority tasks of the Agency. The reports of the Board of Governors on the financing of those activities would greatly facilitate the Conference's work on those issues, which had been left open at the previous session of the General Conference. While concentrating on those topics, the Conference should not, even in times of budgetary constraint, lose sight of the many other promotional activities of the Agency which were of high quality and of considerable importance to many Member States.

17. In the last two years the Agency had made significant contributions to the International Nuclear Fuel Cycle Evaluation (INFCE) which had ended the previous February. That truly international exercise had resulted in a comprehensive data base and a great number of suggestions regarding ways of making nuclear energy available throughout the world while minimizing the dangers of proliferation. The Agency was now called upon to play a major role in following up the suggestions of INFCE. Discussions on particular institutional arrangements and technical developments had already been taking place within the Agency for some time. The establishment of the Committee on Assurances of Supply (CAS) was an important new step in the Agency's efforts to arrive at mutually acceptable solutions with the participation of all interested parties. The Agency was well equipped to serve as the focal point of those discussions.

MESSAGE FROM THE SECRETARY-GENERAL OF THE UNITED NATIONS

18. The PRESIDENT welcomed the representative of the Secretary-General of the United Nations, Mr. Cottafavi, and invited him to take the floor.

19. Mr. COTTAFAVI said he wished to convey a message to the General Conference from the Secretary-General, Mr. Kurt Waldheim.

20. When the Conference had met in New Delhi in 1979, Mr. Waldheim noted, he had underlined the importance of finding ways to spread the benefits of the peaceful application of nuclear energy without increasing the risk of nuclear proliferation. That complex issue continued to be a major concern of the international community.

21. The Second Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) held recently in Geneva, had once

again demonstrated that, to be workable, any scheme developed to meet that objective would have to present an equitable balance between the rights and obligations of the States involved. In a world of increasing interdependence, the responsibility of those amply endowed with technological resources to allow developing nations a share of the benefits of those resources was no longer in dispute. By the same token, the recipients of that technology were obliged to refrain from using it for any but peaceful purposes.

22. The world economy was passing through a critical phase in which every effort had to be made to end the current predominant reliance on petroleum-based energy. The goal of the transition should be to ensure the availability of energy to all countries, particularly the developing ones, whose economic growth would necessarily entail increasing energy consumption. In the search for new and renewable sources of energy, the potential of nuclear energy could not, of course, be ignored. However, it would require the concerted thought and effort of scientists, technicians, planners and policy-makers to establish the necessary conditions of confidence in its exploitation.

23. The results of the International Nuclear Fuel Cycle Evaluation (INFCE) should be noted in that connection. It was to be hoped that profound and careful evaluation of a large number of options would help in choosing the most effective approaches regarding the use of nuclear energy while reducing the risks of proliferation to a minimum.

24. Those risks were increasingly a source of concern. No new nuclear-weapon powers had emerged since the first review of the Non-Proliferation Treaty, but, there were reports that several nations might be capable of manufacturing nuclear weapons. The effective widespread application of the Agency's safeguards system was therefore of the highest importance in combating the proliferation of nuclear weapons.

25. The international community was now at the crossroads. Decisions of a fundamental and far-reaching nature were required on the future course of nuclear power, non-proliferation and disarmament. Nuclear energy could be used on the one hand to improve the global economic situation, but on the other, to endanger the very existence of life on the planet. Until the nuclear arms race was halted or reversed, the world would continue to be confronted with ever-greater risks of a nuclear war.

26. The International Atomic Energy Agency had a critical role to play as a forum for examining many of the issues involved in the use of nuclear energy. The Second NPT Review Conference had clearly shown, once again, the importance of both the Agency's promotional and regulatory activities.

27. Under the effective and experienced leadership of Dr. Sigvard Eklund, the Agency had fulfilled the increasingly challenging task placed upon it by the international community, and he wished to express his best wishes to the General Conference for the success of its endeavours.

ELECTION OF OFFICERS AND APPOINTMENT OF THE GENERAL COMMITTEE

28. The PRESIDENT informed the Conference that further informal consultations would be required regarding the composition of the General Committee; he therefore proposed that the Conference should proceed to item 3 of the provisional agenda, "Statement by the Director General".

29. The General Conference accepted the President's proposal.

STATEMENT BY THE DIRECTOR GENERAL

30. The PRESIDENT invited the Director General of the International Atomic Energy Agency, Mr. Sigvard Eklund, to take the floor.

31. The DIRECTOR GENERAL, after congratulating the President on his election and commenting on his valuable contributions to the Agency's work as leader of his country's delegation, recalled that the previous year the General Conference had enjoyed the generous hospitality of the Government of India, and those attending had had the opportunity to become acquainted with the remarkable development of nuclear energy in that country. The present General Conference session was the first in Vienna since the Agency had moved to the Vienna International Centre (VIC) the previous autumn. General Conference sessions in Vienna would continue to be held in the Hofburg until the new Conference Centre at the VIC was ready in the mid-1980s.

32. Slightly more than a week before, the World Energy Conference had concluded a meeting in the Federal Republic of Germany attended by some 5000 participants. Having attended that meeting, he might be expected to be able to give an accurate account not only of the world-wide status of nuclear power but also of its

foreseeable development in the future. It would, indeed, be easy to describe the present status of nuclear power. Statistics on plants in operation, under construction or planned were provided in the Agency's annual report. The contribution that nuclear power would make by 1985 could also be predicted with reasonable certainty. However, the view into the more distant future, ten or twenty years hence, was obscured by deep and growing uncertainties.

33. Many nations seemed to be in the midst of a re-assessment of the fundamental values which had provided a basis of the industrial society for more than a century. Those values had been based on the assumption that, by exploring the secrets of nature, it would be possible to tame and use the natural resources and thereby eliminate the drudgery of manual or repetitive work and raise living standards everywhere - in short, to make material progress possible on a large scale.

34. In a number of industrial countries, it was thought that a level of material satiety had been reached and that further high technology was not needed. Ideas of that kind had shown themselves to be contagious, spreading throughout the affluent sections of industrialized society and sprouting out into pressure groups, sometimes with considerable political influence. The advocates of those ideas had come to regard nuclear energy as the archetypical example of high technology which was not required since they seemed to be content with their present condition and quite oblivious of the lot of the vast majority of mankind, numbering some two thousand million people, who could barely afford the necessities of life, let alone a reasonable standard of living.

35. One was thus faced with the paradox of hostility to nuclear energy at a time when the present industrial pattern was consuming oil so quickly that the world ran the risk of exhausting its reserves within a few decades, and when the rising price of oil was causing grave imbalances in the world economy.

36. Seven of the world's leading statesmen had issued a joint statement in June 1980, at their summit meeting in Venice, to the effect that:

> "We underline the vital contribution of nuclear power to a more secure energy supply. The role of nuclear energy has to be increased if world energy needs are to be met. We shall, therefore, have to expand our nuclear generating capacity."

The reality, however, was that OECD countries had just scaled down their nuclear projections by some 30% and, in the country which had pioneered nuclear energy

for three decades, there was even talk of "retiring" nuclear power plants in an orderly manner. What future could, therefore, be foreseen at the global level for the promotion of nuclear energy, the task for which the Agency had been established twenty-three years previously?

37. Even in the country which had acted as host to the World Energy Conference, the result of a detailed study by a parliamentary commission had been a recommendation for only a very limited expansion of nuclear energy, while decisions on fundamental issues were deferred. In Sweden, the recent referendum had approved the completion of a twelve-reactor programme, but had simultaneously recommended the gradual phasing-out of nuclear power by the year 2010 and its replacement by other, mainly renewable, domestic energy sources.

38. To balance the picture, it should be added that France's remarkably dynamic nuclear energy programme was intended to provide half of that country's electricity production by 1985 through the steady ordering of some 5000 MW of nuclear capacity each year, and that the programmes of the countries belonging to the Council for Mutual Economic Assistance (CMEA) were aimed at no less than 100 000 MW by 1990.

39. It might be asked whether the World Energy Conference had cast any light on that confused situation. There had been overwhelming agreement on the need to use nuclear energy in order to diminish the consumption of oil. There had also been discussions on the need for nuclear power in the developing countries, whose energy problems had been one of the main themes of the Conference. There had been stern reminders of the environmental and even global consequences of burning large quantities of fossil fuel. One participant had even expressed a sense of urgency in the words: "We have energy, what we lack is time", when he had referred to the transition from fossil to nuclear fuel. However, no plan of action had emerged from the Conference, and no suggestions had been made as to how to overcome the impasse which much of the world seemed to have reached in dealing with the irrational opposition to nuclear energy.

40. Until there was a resurgence of demand for new nuclear electric capacity, the fundamental question would remain: how and how long could the nuclear industry hibernate or even survive without new orders? Not only was the nuclear industry itself affected, but there were also signs that there might be an ominous decline in the professional manpower needed to service the industry. Universities in the United States, the Federal Republic of Germany and Sweden

were reporting that professorships in nuclear topics were being transferred to other disciplines owing to a diminishing interest by students who sensed a declining market for nuclear skills.

41. It might seem a pessimistic view, but until the electorate of the industrialized countries of the West fully realized that nuclear energy was immediately available to solve many of their environmental and economic problems, care would have to be taken to see that nuclear energy, at least in those countries, was not strangled while still in its infancy. That risk existed not only because of the pressure of anti-nuclear groups, but also because of the actions of those who, though with the best intentions, inhibited the growth of nuclear energy by regulatory requirements far beyond the scope of the relevant provisions of the Non-Proliferation Treaty.

42. In view of the establishment of an Agency safeguards system, and the Tlatelolco and Non-Proliferation Treaties, it was very regrettable that the confidence that had fostered nuclear development in the sixties and early seventies had been eroded. Concepts such as prior consent and good non-proliferation credentials were also a cause of uneasiness since, when carried to logical conclusions, they might create situations where customers and consumers alike felt the need to shake off dependence on outside enrichment and reprocessing services by establishing facilities of their own.

43. It was his personal conviction that every advanced form of energy technology, including nuclear energy, would be required for survival in a world which, within decades, would have to support 50% more people than today and also be confronted with steadily diminishing natural resources and raw materials.

44. There had been a time when public awareness had perhaps been lulled into a false sense of security - a time when oil was cheap and plentiful and solar and other forms of soft energy seemed to offer quick and easy solutions. In many countries there was now a growing movement towards energy conservation and an incipient realization that each form of energy production possessed both advantages and drawbacks - an attitude that should be encouraged.

45. The Agency could make its contribution to restoring confidence in nuclear power by promoting programmes for the dissemination of objective information, by

expanding its work on ensuring the highest nuclear safety standards, by its contribution to non-proliferation and by its help in stabilizing and clarifying the world nuclear supply system. Ultimately, however, it was up to the Governments of Member States of the Agency to bear the political responsibilities; the Agency itself could only serve to implement their wishes and decisions.

46. To an impartial observer, the record of the last two years in nuclear power terms had surely been bewildering. The price of oil had nearly doubled in 1979, while that of steam coal had risen by 40%. A recent report by the British Central Electricity Generating Board had shown that the cost of electricity produced by the newest coal-fired stations would be 50% above that of the AGR reactors, while oil-fuelled power was nearly three times more expensive. Furthermore, it was increasingly clear that the new, renewable energy sources would not make a significant contribution before the end of the century.

47. Regarding the environment, there had been growing international concern about the effects of acid rain, together with far-reaching climatic changes, that might result from the increasing carbon dioxide content of the atmosphere. Both those phenomena were caused by the burning of coal and oil and other fossil fuels. There was a great deal of objective evidence that properly operated nuclear power plants presented significantly lower overall risks than other available forms of power generation. One might have thought that the rational reaction to that fact in favour of nuclear power would be a rapid expansion of nuclear capacity, and at first sight that seemed to be the case. For example, on 1 June 1980, 125 000 MW of nuclear power was providing 8% of the world's electricity, and a further 210 000 MW was under construction in nearly 30 different countries. But those comforting statistics hid a confused and discouraging picture. In 1979, the total amount of nuclear power plant on order decreased by about 10 000 MW. Eight new orders had been placed, but 16 previous ones had been cancelled. That trend had continued during the first half of 1980 and nine plants with a total capacity of 8600 MW had been ordered in Western Europe, while ten plants with a capacity of 11 000 MW had been cancelled - all in the United States.

48. The word that most closely described the nuclear industry in North America and most of Northern Europe was stagnation. In the United States, which still led the world in nuclear capacity, not a single new unit had been ordered since 1978. On the other hand, there were countries, like Japan or Spain, where

construction of three previously ordered plants had been approved earlier in the current year, despite opposition. The sharpest contrast was, however, afforded by France and the socialist countries. Also to be mentioned was the fact that the world's largest fast breeder reactor had come into operation in the Soviet Union earlier in the year, and that the first commercial breeder - the Super Phenix, with a capacity of 1200 MW(e) - was expected to be put into operation in 1983.

49. It was worthy of note that the oil supply crisis, coal problems and the economic and environmental advantages of nuclear energy were factors that applied with almost equal force to nearly all countries. Economic factors such as recession and inflation affected almost all free-market industrial countries, and also some of the socialist countries. Hence, the differences between national nuclear plans could not be explained away in those terms, and the answer lay rather in the actions of political decision-makers and questions of public confidence.

50. In any event, the nuclear industry in those countries which had pioneered it now faced an uncertain future. If the uncertainty continued, it would affect even those countries where nuclear power was still forging ahead, thereby jeopardizing the prospects of nuclear power in developing countries, and the Agency itself would suffer from the repercussions.

51. In the developing countries the picture was equally discouraging. Although Argentina had ordered a new power reactor in 1980, and although Bangladesh, the People's Republic of China and Greece were, it was said, considering their first plants, delays had taken place in the Brazilian and Philippine programmes, and one country, Iran, had terminated its nuclear power programme.

52. The size of the standard nuclear unit was still an obstacle to the introduction of nuclear power in the developing countries. Estimates showed that not more than ten of the developing countries of Asia, Africa and Latin America would be operating nuclear plants by 1990, and only ten developing countries now had firm plans for operating such plants by the end of the century.

53. An important element in any nuclear power programme was the availability of uranium. Together with the Nuclear Energy Agency of OECD, the Agency continued to publish reports on uranium resources, production and demand. The latest report (1979) showed that estimates of reasonably assured resources at a cost

of up to US $80 per kilogram had increased between 1977 and 1979 by about 200 000 tonnes to a total of 1.9 million tonnes. Those of uranium in the range of US $80-130 per kilogram had likewise gone up by about 200 000 tonnes to a total of 0.7 million tonnes. Those figures, which did not include the socialist countries, gave a reasonable assurance of about 2.6 million tonnes of uranium; that would be sufficient to ensure a lifetime's supply of fuel for all reactors scheduled for construction by the year 2000. And if breeders came into common use at a later stage, the supplies would be ample for the foreseeable future.

54. Present production capacity was sufficient for current needs and the uranium resources available would permit an increase in annual production if there were economic incentives and stability. But unfortunately that was not the case. There had been instances of uranium mines closing down because of the uncertainties prevailing in nuclear power. It had to be borne in mind that from commencement of uranium exploration to the first substantial production the lead-time was now of the order of 10-15 years.

55. The Agency's role in nuclear safety had been considerably broadened and in that connection mention had to be made again of the extremely good safety record of the nuclear industry. It was astonishing that the media never referred to the fact that there had been not one radiation-induced fatality in nearly 2000 reactor-years of operating experience at 235 commercial nuclear power plants. Few other industries, and certainly no other energy industry, could claim a comparable record. Nevertheless, the nuclear industry had lost no time in drawing lessons from the Three Mile Island accident. There was now greater emphasis on operational safety and improved training in recognition of the important part played by the human factor. In the United States there had been established an Institute for Nuclear Power Operations and a Nuclear Safety Analysis Centre to ensure that adequate attention was given to those and related matters.

56. Also worthy of note was the growing scepticism in the scientific community with regard to the risks of low-level radiation. The International Commission on Radiological Protection had discussed the possible relaxation of certain standards, and epidemiological studies had recently been made in China on the incidence of cancer in population groups exposed to very different levels of natural radiation without differential effects being detected. Furthermore, the third report of the United States National Research Council on the Biological Effects of Ionizing

Radiation had cut by half the already low figure for possible cancer deaths associated with low-level radiation. However, it would be prudent not to relax any standards until more evidence was available.

57. As was known, the Agency had reached an advanced stage in preparing the most up-to-date internationally agreed safety standards for nuclear power plants. Some twenty of the sixty documents envisaged had already been published. Fourteen requests for visits by safety experts had been received from Member States with a view to assistance to their national authorities in applying the standards and, under the technical assistance programme, there had been in 1980 four nuclear safety training courses, each of six weeks' duration.

58. The major International Conference on Current Nuclear Power Plant Safety Issues, to be held in Stockholm from 20 to 24 October 1980, would afford an opportunity for a thorough evaluation of the safety standards being applied by the nuclear industry, and for assessment of possibilities for closer international and regional co-operation in safety matters. It would also provide a forum for discussion of the transfrontier aspects of nuclear energy, an issue raised by the Austrian Government.

59. In the area of waste management, the Agency had expanded its programme and was now co-operating closely with NEA; it was also working with the United Nations Environment Programme (UNEP), the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) and WHO to assess the health and environmental impact of various energy sources. In addition, the Agency's regulations for the safe transport of nuclear material, recently comprehensively reviewed, were now being applied in almost all countries under the relevant international conventions.

60. Agency safeguards and the problem of proliferation had been discussed at length at the Second Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons a few weeks previously. Many participants had expressed confidence in the Agency's safeguards system and called for further strengthening of the safeguards programme, which was recognized as an important contribution to international security. No effort should be spared, in his opinion, in strengthening the non-proliferation regime in the next five years. More specifically, an early conclusion of a comprehensive test-ban treaty would be a major step in making the NPT regime universally acceptable. Unlike NPT, a

comprehensive test ban treaty would apply equally to nuclear-weapon and non-nuclear-weapon States, thus preventing charges of discrimination. If all nuclear-weapon States could accept such a treaty, it should be acceptable to those important "threshold" countries that now refused to join NPT on the grounds that it was discriminatory. It would serve the purpose of preventing the testing of any nuclear explosive that such "threshold" countries might possess or acquire, as well as to some extent putting a brake on vertical proliferation.

61. Turning to the issue of those nuclear-weapon States that were operating or constructing unsafeguarded nuclear facilities, he wished to point out that the majority of facilities concerned were "sensitive" and that it was impossible to escape the political fact that the operation of an unsafeguarded reprocessing or enrichment plant automatically created a fear of plans to acquire nuclear explosives. The destabilizing effect of such apprehensions in the regions concerned was abundantly clear. It would perhaps be naive to expect in such cases that the nuclear problem could be resolved in isolation from the broader political problems surrounding it. But it had to be stressed that by adding a nuclear dimension to such political problems one was more likely, far from enhancing national security, to pose a threat to security and unravel the whole fabric of non-proliferation that had been woven with such effort, patience and statesmanship during the past two decades. On the other hand, acceptance of full-scope safeguards by those countries would be a major contribution to the security of the regions to which they belonged and to the establishment of additional nuclear-weapon-free zones.

62. Lastly, all countries were urged to remove obstacles that stood in the way of effective application of Agency safeguards. The Board of Governors had been informed, on a number of occasions, of the growing problems faced by the Agency in the designation and acceptance of inspectors. Although it was the right of every State to reject an individual whom it considered personally unacceptable, the practice of rejecting whole categories of inspectors on political, linguistic or ethnic grounds was growing and inevitably led to retaliatory discrimination, thereby hindering the effective use of scarce and costly manpower.

63. As far as positive developments in the safeguards programme were concerned, the Agency had set up its first safeguards field office in Canada and was making similar arrangements for the stationing of inspectors in Japan so as to reduce long-distance travel and increase inspection man-days in the field.

64. Since December 1978, a group of experts from twenty-five States and EURATOM had been endeavouring to develop an international plutonium storage system, and had now reached the stage of drafting some of the relevant legal instruments. A similar group had been reviewing the problem of spent fuel management, which was increasingly difficult from the technological and economic standpoint for many States in the light of delays in expanding their reprocessing capacity.

65. Further points to note were the renewed interest shown at the NPT Review Conference in continuing and expanding the Regional Fuel Cycle Centre Study, and the fact that Subsidiary Arrangements under the Safeguards Agreement with the United Kingdom had come into force in August 1980; moreover, the Agreement with the United States had been approved by the Senate in July and would enter into force by the end of the present year.

66. The Board's decision on a target of $13 million for the technical assistance programme in 1981, and on planning figures of $16 million for 1982 and $19 million for 1983, was encouraging. Despite the target increase, however, the gap between resources and needs was gradually widening. It had been possible to put into effect in the 1979 programme only one third of the projects that were technically sound but for which no funds were available.

67. The Agency's regular technical assistance programme provided many examples of small projects that served as "catalysts" for larger national or UNDP projects. For example, a small interregional project carried out by the Agency in 1978 had led to the planning of a $5 million UNDP project for the industrial application of nuclear technology; that had been possible under the Regional Co-operation Agreement (RCA) in Asia, which was now substantially supported by Australia and Japan.

68. The developing countries had been severely affected by rising energy costs, and it had now become imperative for them to limit the consumption of some of the products that made possible the "green revolution" but which, unfortunately, required high energy inputs, such as artificial nitrogen fertilizers and pesticides. The Joint FAO/IAEA Division, which had accordingly shifted the emphasis of its work, had begun a co-ordinated research programme, in collaboration with the Swedish International Development Authority (SIDA), aimed at maximizing the biological fixation of atmospheric nitrogen.

69. The work of the International Tokamak Reactor (INTOR) Workshop was progressing and the survey of the present status of tokamaks, designed to determine the greatest step forward that could reasonably be planned for the early 1990s as an international project, had been completed. The next phase, which was to produce a conceptual design for an operating device, was scheduled for completion in July 1981.

70. Turning to a matter he believed should engage the Agency's greatest endeavours, he said that discussions at the NPT Review Conference had shown how essential it was to work for greater security in the supply of nuclear materials, plant and technology while still strengthening assurances against proliferation. In 1979, he had suggested that the Agency should set up a committee for that purpose and the relevant action had been taken by the Board in June. The first meeting of the new committee (CAS) would be held the following week and there was a real possibility of finding mutually acceptable solutions. Assurance in the supply of nuclear fuels was doubly important in view of the insecurities surrounding the supply of other energy sources. If the challenge was not met, the alternative could well be nuclear autarchy, with all the proliferation risks that went with it.

71. In conclusion, there were some budgetary matters to be mentioned. In deference to wishes expressed by many Member States, the Secretariat had drawn up a zero real growth budget for 1981, amounting to $88.7 million, and the Board had recommended its approval. It was not possible, or desirable, however, to freeze every programme, hence zero-growth programmes resulted of necessity in the reduction of certain Agency activities. More especially, some of the programmes of the Department of Research and Isotopes and of the Division of Nuclear Power and Reactors of interest to developing countries had had to be retrenched.

72. Furthermore, the needs of developing countries, like the requirements of the Agency's own safety and safeguards programmes, did not remain static. Hence zero growth could only be a transitory phase if the Agency's programmes were to reflect its statutory obligations and the needs of Member States. But although technical programmes would continue to require a reasonable budgetary growth in the years ahead, they would be kept under constant review, especially in cases where the priority assigned had diminished. For example, the Agency's laboratories at Seibersdorf and Monaco would be subject to a fresh appraisal in terms of the scope and requirements of the relevant programmes in 1981; at Monaco the

laboratory premises and equipment had become inadequate, while at Seibersdorf there were activities which could probably now be turned over to national laboratories.

73. While energy itself might be short, there was no shortage of meetings on that subject. A number of steps had been taken to streamline and reduce the cost of the Agency's symposium programme on the basis of experience gained over the last two decades.

74. The Agency had often paid tribute to the generosity shown by the Austrian Government and was aware of the tremendous capital expenditure borne by it in connection with the construction of the VIC. At the same time, the Agency had to be constantly on the look-out to avoid situations in which its budget was increasingly consumed by housekeeping expenses. Also, there were still uncertainties with regard to the cost of operation, maintenance and repair work at the VIC, but it was hoped that a more stable period of financial planning was in the offing.

75. It might be appropriate, in summing up, to repeat some of the thoughts that he had expressed at the end of his address to the General Conference in New Delhi in 1979, namely that far from being at the end of industrialization, the world was at the beginning of it. One had to acknowledge how far the world had progressed since the Second World War in making the lives of human beings easier, healthier and more productive through continuing scientific and technological developments. The present nuclear debate was not the most important issue that mankind had ever faced; there were many other, more important ones such as how to maintain world peace and how to help the hundreds and millions of people who were starving. Yet, to feed those people and to better their lot, industrialization was needed, and that in turn required a supply of cheap, reliable energy. That was where nuclear energy could make a substantial contribution.

VOLUNTARY CONTRIBUTIONS TO THE TECHNICAL ASSISTANCE FUND FOR 1981

76. The PRESIDENT, after thanking the Director General, said that he would like to make some remarks concerning the importance of voluntary contributions to the Technical Assistance Fund.

77. Technical assistance to developing countries was one of the main tasks of the Agency under its Statute. The decision by a country whether to embark on a nuclear energy programme was a basic political decision requiring an independent assessment of that country's particular situation. Developing countries therefore needed to acquire the means for carrying out such assessments. It was also important for developing countries contemplating nuclear energy programmes to develop a human, scientific, technical, industrial, and institutional infrastructure that would permit the necessary preparations for the construction and operation of nuclear facilities. By providing equipment and expertise, the Agency played a valuable role in helping countries to make a start in the nuclear field and thereby contributed to the solution of the energy problem. The Agency's technical assistance programme had increased considerably over the years, but its volume continued to be a point of intensive debate between Member States. Since the twenty-third session of the General Conference, the Board had been actively examining that question and considering methods of financing the programme.

78. Considerable efforts had been made to achieve greater predictability and stability in the technical assistance budget, and thus to facilitate planning and the evaluation of Member States' requirements in the light of the resources expected to be available to the Agency over a period of some years. The report of the Board of Governors on that matter would be discussed at a later stage.

79. Regarding the programme for 1981, it was most important for the Agency to know at an early stage whether the target adopted for the forthcoming budgetary year would actually be met. He therefore urged countries to pledge their voluntary contribution as soon as possible, so as to permit an early assessment of the total sum of money available for the next year. He was aware that some countries, for internal legal reasons, could not yet make any financial commitment, but he urged all delegations in a position to do so to pledge their countries' voluntary contributions before the end of the session so that he could report to the Conference, before it adjourned, that a large percentage of the target figure for 1981 had been reached.

ARRANGEMENTS FOR THE GENERAL CONFERENCE

80. The PRESIDENT, recalling his earlier statement that further consultations would be necessary before the General Committee could be appointed, suggested that, since Article V.E.4 of the Statute required the General Conference to consider the annual report irrespective of decisions on the rest of the provisional agenda, the Conference should waive the provision in Rule 42(a) of the Rules of Procedure, according to which the General Committee must consider the provisional agenda at the beginning of each session of the General Conference, and proceed immediately with the general debate.

81. The General Conference accepted the President's suggestion.

GENERAL DEBATE AND ANNUAL REPORT FOR 1979

82. Mr. SMITH (United States of America) after congratulating the President on his election and thanking the Government of Austria and the City of Vienna for their hospitality, read out the following message from the President of the United States:

> "I am pleased to extend the best wishes of the United States to all participants in this twenty-fourth meeting of the IAEA General Conference.
>
> "This year has seen important developments, for example, a greater appreciation for the need to cut down the use of oil for electric power, the conclusion of the International Nuclear Fuel Cycle Evaluation, and the publication of the report regarding the accident at Three Mile Island. There has been an increasing awareness of the importance of nuclear power and of the need to develop it in ways to reduce the risks of proliferation and to ensure safe, reliable operation of nuclear facilities. The Communiqué at the Venice Summit Conference this year stated that, 'The role of nuclear energy has to be increased if world energy needs are to be met.'
>
> "As States share a common interest in inhibiting the spread of nuclear weapons, so do they share an interest in seeing that all nuclear activity is carried out as safely as possible. Applying safeguards of the IAEA to all peaceful nuclear energy activities is widely recognized as an important means of advancing the security of all States. But continuing efforts both to support the safeguards program and to reduce the risk of spread of nuclear weapons are essential. By the same token, States can only benefit from continuing international co-operation in nuclear safety.
>
> "Through implementation of safeguards, safety and technical assistance activities and the work of expert advisory groups, the IAEA represents the most important international instrument to promote peaceful nuclear development safely and securely. The United States hails the accomplishments of the Agency and will continue full support for its important work."

83. The Agency made a vital contribution in the field of technical assistance to developing countries, where it played a special role in promoting peaceful uses of nuclear energy. He announced that, for 1981, the United States would pledge a voluntary contribution of $3.25 million for technical assistance.

84. The need to expand nuclear energy had also been acknowledged at the conclusion of INFCE and at the Second NPT Review Conference, but there was a need to

ensure that nuclear development proceeded in a manner which reduced the risks of nuclear proliferation to a minimum and complied with the highest safety standards.

85. Most nations of the world clearly recognized the common danger to all mankind from a further spread of nuclear weapons. For example, exactly one year before, an unexplained event in the South Atlantic had led to fears and speculation. Although his Government had concluded that it was probably not a nuclear explosion that triggered the United States satellite's warning device, the incident had been a sobering reminder of a real danger. Similarly, although the safeguards system seemed to be working reasonably well and no diversions of material for military purposes had been reported, there had been some other disturbing indications which suggested that concerns about proliferation were not unfounded.

86. In his view, the attitude of most nations to the danger of proliferation was a responsible one. However, there were no grounds for complacency. All Agency Member States should resolve anew to do their best to ensure that no civil nuclear programmes were misused for the purpose of manufacturing explosive devices. Indeed, the ability of States to make full use of nuclear power and to co-operate with each other might depend on the efficacy of non-proliferation throughout the world.

87. It was recognized that IAEA safeguards were an essential means of achieving that end. But other factors were also important; for example, INFCE Working Group 3 had concluded in its report that there was a strong positive relationship between the non-proliferation commitments of States and their ability to obtain nuclear supplies on a timely and reliable basis. United States policy and law supported this view, and Section 101 of the United States non-proliferation law stated:

> "The United States, as a matter of national policy .... will provide a reliable supply of nuclear fuel to those nations and groups of nations which adhere to policies designed to prevent proliferation."

That provision was sometimes overlooked by some who focused only on United States export controls, and it therefore needed to be stressed. Since non-military nuclear co-operation first began, the United States had been a major supplier of nuclear technology, equipment and material to co-operating nations. While recognizing that the tightening of nuclear export controls in recent years had caused some concern in other nations, the United States believed that its policies and those of other countries were coming closer. Although there were

still differing views on the most desirable approaches to be followed, he sensed a growing recognition that certain special measures relating to the production and handling of weapons-usable materials were necessary if the international community was to have confidence that nuclear energy was not being misused. General international support for a reduction in reliance on highly-enriched uranium in research reactors provided an illustration of that trend. At the same time, co-operation must not be allowed to suffer as a result of a breakdown in mutual trust, and legitimate energy needs must be met.

88. His Government was giving careful attention to the views expressed at the Second NPT Review Conference, and his impression was that there continued to be widespread support for NPT and a desire that other countries join it. There also appeared to be growing awareness among many States of the serious dangers which proliferation entailed. However, although there was strong support for the Agency, many States were concerned that their access to the benefits of peaceful uses of atomic energy should not be constrained by their non-proliferation commitments. Considerably more attention needed to be paid in order to ensure that such benefits were accessible to those States, and there was in any case a growing recognition of the need for increased confidence, reliability and predictability in nuclear supply.

89. By drawing on the results of INFCE, the United States had been giving increased attention to ways in which it could contribute to greater reliability in nuclear trade, and was well aware that consumers would judge suppliers more by their actions than by their words. His Government was trying to introduce greater predictability into its own export procedures in various ways.

90. First, the United States Agreement with the IAEA had been renegotiated in 1979, primarily in order to include provisions that had become standard conditions imposed by the United States, since it was thought that it would expedite transfers through the Agency if the criteria applied by his Government were spelled out in advance. Since the renegotiation of the Agreement, the United States had concluded IAEA supply arrangements with three Member States, and two more were to be completed soon. The process of reaching agreement was becoming a routine one, and such a pattern was proving to be beneficial, since it increased confidence and timeliness where that process was concerned.

91. Secondly, for purposes of bilateral agreements, the United States now granted export licences for up to five reloads of reactor fuel for States party to NPT, and the issuing of general licences had been approved for components for power reactors in NPT States supplied by the United States and, in the case of some reactors, by other countries also. Congress had also recently approved the lifting of ceilings on possible transfers of low-enriched uranium under bilateral agreements with States party to NPT. In addition, his Government was continuing to participate in consultations about the establishment of an international nuclear fuel bank.

92. His Government would continue to try to improve the procedures it followed. Adherence to NPT remained a central plank of its nuclear policy, and participation in the Tlatelolco Treaty and acceptance of "full-scope" safeguards by its trading partners were also important considerations.

93. Additional supply assurances might be required, and it was expected that some of those would be identified by the recently established IAEA Committee on Assurances of Supply and in further consultations. The United States would participate constructively in the Committee's work, and hoped that the Committee would concentrate on practical steps to improve the security of supply in the near term, thus clearing the way for international consensus on conditions for supply over the longer term.

94. His Government would continue to participate actively in the groups of experts working on international plutonium and spent fuel storage. If adequately designed, an international plutonium storage system could provide a useful contribution towards non-proliferation in the future. It would, however, need to incorporate rigorous criteria for the storage and release of plutonium. Improved international co-operation in spent fuel management should also help overcome shortages in storage capacity and restore confidence in the nuclear fuel cycle.

95. One important finding of INFCE had been that the proliferation of nuclear explosives was a serious problem requiring attention in the development of future nuclear power programmes. While recognizing that the abuse of nuclear power might not be the way in which nuclear explosives were most likely to be acquired, he believed that each fuel cycle entailed risks which should be taken into account in nuclear power planning.

96. INFCE had also concluded that improved international safeguards were essential. Facilities should be designed to make safeguards more effective and to simplify safeguards implementation. Progress in the design and application of safeguards was essential to the expansion of nuclear power. The United States was also trying to identify other useful non-proliferation techniques. The reduced pace of nuclear power development in recent years offered additional time to work out improved and internationally acceptable approaches.

97. His Government shared the Director General's conviction that the cause of non-proliferation would be greatly furthered if all non-nuclear-weapon States with nuclear programmes accepted IAEA safeguards on all their nuclear activities and believed that a large majority of States agreed with his view; that belief was borne out by the fact that there were now one hundred and fourteen parties to NPT. A number of important States had, however, not yet accepted safeguards over their entire programmes, and he urged them to join the majority and thereby benefit fully from international nuclear co-operation while contributing to both regional and world stability.

98. Noting that Congress had recently approved ratification of the United States Agreement with the IAEA providing for implementation of his Government's voluntary offer to accept IAEA safeguards on its peaceful nuclear facilities, he said that the application of IAEA safeguards to those facilities should show that the acceptance of international safeguards was not unduly onerous.

99. The United States proposed to continue to support strengthened physical protection measures and had noted with satisfaction that the Convention on the Physical Protection of Nuclear Materials had been opened for signature on 3 March 1980. The United States was taking steps to ratify that instrument and hoped that other nations would also do so.

100. The international nuclear community must constantly be concerned with nuclear safety. The accident at Three Mile Island (TMI) had given all Member States cause to reflect. It had demonstrated that a serious nuclear accident could produce severe repercussions in other nations and had shocked experts into recognizing the consequences of such an event. It was to be hoped that the accident had eliminated complacency. TMI had made it more necessary to probe and to question, to check and double-check, to improve contingency planning, to take nothing for granted and to make every effort to ensure that nuclear power stations were built and operated safely. It also provided a valuable lesson in

the organization and implementation of effective nuclear safety programmes, and in dealing with the public in a responsible manner.

101. Many were still analysing the results of TMI studies. A number of American organizations had launched a programme aimed at learning as much as possible about the TMI accident, and the information derived would be made widely available. The United States Department of Energy was sponsoring a seminar on 21 and 22 November in Washington in order to put proposals before the international community for research and development tasks and in order to provide a forum for discussion. Participation by the Agency and Member States would be welcomed.

102. More trained personnel would be needed as nuclear power expanded. Risks could not be eliminated entirely, but they should be manageable if it remained possible to attract highly trained people to that field. The United States applauded the Agency's vigorous efforts to strengthen its nuclear safey programme and congratulated it for sponsoring the International Conference on Current Nuclear Power Plant Safety Issues, to be held in Sweden in October 1980.

103. Both advanced and developing countries were making increasing use of the Agency's health and safety services. Some Member States had begun to incorporate codes and guides drawn up under the Agency's nuclear safety standards programme into their national regulations. That was a welcome development which reflected the success of the programme. Safety advisory missions had proved successful in several countries, and the Agency's reputation for reliable advice continued to grow. Some of those tasks had been undertaken within the framework of the technical assistance programme, which was of importance to a large number of developing Member States. The United States was continuing to provide strong support for such activities, for example, by the assignment of cost-free experts to work with Agency staff for periods of one year and by the provision of funds for a nuclear safety seminar and for future manpower development activities.

104. Although nuclear power was undergoing a difficult period, the continued broad support which the Agency commanded was encouraging, and no international organization had accomplished more than it. Thus, efforts should continue to be made to strengthen the Agency, to promote an effective world-wide non-proliferation regime acceptable to all and to ensure that nuclear power plants were constructed and operated safely. The United States would work closely with the Agency and with all Member States in order to achieve those objectives.

105. In conclusion, he said that the Agency was an effective instrument for promoting and guarding atomic power, which was coming under man's control at the same time as it was being realized that petroleum would not be available for many more decades. The Agency was a unique international structure, and it was necessary to preserve it for its original purposes, and to prevent it from becoming merely a politicized body where debate and confrontation prevailed rather than concrete achievement.

106. Finally, he paid a special tribute to the Director General, who had served the Agency and all Member States with dedication for nineteen years.

107. Mr. de BOER (Netherlands) said the annual report showed that the Agency's activities in such important matters as safeguards, technical assistance, reactor safety and waste disposal had been carried out in an efficient and businesslike manner. His delegation welcomed the efforts of the Agency in connection with nuclear safety and was looking forward to the International Conference on Current Nuclear Power Plant Safety Issues to be held at Stockholm in October 1980.

108. The continued slowing down during the past year in the peaceful uses of nuclear energy, particularly for the generation of electricity, demonstrated how important it was to find solutions to the problems of safety and radioactive waste disposal as soon as possible. If they were not found, public opinion in many industrialized countries, which was already rather unfavourable to nuclear power, would definitely turn against that potentially important source of energy.

109. The Netherlands Government had taken a decision in principle to build two additional nuclear power plants. That decision would be subject to an intensive public debate before being implemented.

110. In the context of nuclear safety, the physical protection of nuclear materials, too, was an essential consideration and for that reason his country had signed the Convention on Physical Protection of Nuclear Materials. Together with the other Member States of EURATOM, it hoped to ratify that instrument in the near future.

111. From the point of view of non-proliferation, two international events stood out during the past year: the conclusion of the International Nuclear Fuel Cycle Evaluation (INFCE) after more than two years of study and the Second Review Conference of the Parties to the Non-Proliferation Treaty, ten years after the entry into force of that Treaty.

112. INFCE foremost had been a technical exercise. Several aspects of the different fuel cycles, such as economics and energy efficiency, had been evaluated, but the non-proliferation aspect had undoubtedly been the most important. The existence of serious concern regarding the possible spread of nuclear weapons and other nuclear explosive devices had been one of the main reasons for launching the study and consequently it had sometimes been inevitable that political factors should have played a prominent part in the discussions. INFCE could be considered an effort of the international community to reach a common view on a number of important non-proliferation questions. At its inception the views on the technical and political safeguards measures required to minimize proliferation risks had differed considerably. Although INFCE had not resulted in common positions on all the important issues involved, it could surely be said that it had produced a better mutual understanding of national fuel cycle policies. It had also heightened awareness of the danger of proliferation and stressed the need to develop common approaches.

113. INFCE had concluded that technical measures alone could not prevent the spread of nuclear weapons, but that did not mean that attempts to reduce the existence of significant quantities of materials that could be used directly in building nuclear weapons would be meaningless. In that connection his delegation saw special merit in further studies on such measures as co-conversion and co-processing.

114. Apart from technical measures, joint political measures were necessary for an adequate non-proliferation policy. The most important political instrument in that connection was, of course, the Non-Proliferation Treaty. The fact that it had not been possible to reach a consensus on a final document at the end of the Second NPT Review Conference should therefore be considered a rather serious setback. Although it was too early to assess the consequences of the situation, there was some risk that the Treaty would become less attractive to potential adherents and even, in the long run, that Member countries might turn away from it.

115. The most important obstacle to reaching a consensus was the lack of progress in nuclear disarmament. But even in the absence of consensus, it had nevertheless proved possible to reach agreement, even though informal, on major parts of the text for a final document, namely, on the Articles III (implementation of Agency safeguards), IV (peaceful nuclear collaboration) and V (peaceful nuclear explosions). With reference to the informal document distributed on the last day of the

Review Conference, the Netherlands considered the Agency Committee on Assurances of Supply of nuclear equipment and technology, the establishment of which was welcomed by the Conference, to be a most suitable and, it was to be hoped, productive instrument for a continued dialogue on nuclear co-operation. It was desirable that the impetus of INFCE should be maintained.

116. Another subject of the informal document which deserved special attention was the early establishment by the Agency of an international plutonium storage (IPS) scheme. His Government welcomed the unanimous support for such a scheme at the Review Conference. It believed that the establishment of IPS would greatly facilitate the development of a new international consensus on peaceful nuclear co-operation. A basic element of that new consensus should be the application of Agency safeguards to all peaceful nuclear activities in importing and in exporting States.

117. At the two international conferences to which he had referred, the role of the Agency in the implementation of the safeguards system had received unanimous support. It was gratifying to learn from Agency reports that safeguarding techniques had been further improved and that the number of full-time inspectors had been increased to 138. However, his Government realized that the safeguarding, particularly of the sensitive parts of the fuel cycle, had to be further developed and it was ready to co-operate fully in attempts to improve the effectiveness and credibility of that part of the system. It was seriously concerned about what the Director General had said on several occasions regarding a growing tendency to reject certain categories of inspectors on political, linguistic and other grounds. For an international agency that was an unacceptable situation.

118. The budget for 1981 presented a satisfactory and clear picture of developments in the Agency's programmes. It was a source of satisfaction that more resources had been allocated to such vital programmes as nuclear safety, safeguards, technical assistance and training. The amounts for technical assistance had grown substantially in the year just past. The Netherlands Government was aware of the need for continuity in that branch of the Agency's activity. For that reason it considered the increase to be realistic and agreed upon the indicative planning figures presented by the Board.

119. Mr. NAKAGAWA (Japan) said that one of the major tasks in the 1980s was to ensure the supply of adequate energy at appropriate prices in order to sustain

world economic growth. Ever since the "oil crisis", all countries had been endeavouring to secure a stable supply of energy over a long period. Efforts were being directed not only towards energy conservation but also towards increased and improved use of coal and developing the technology of solar and other renewable sources of energy. Nevertheless, nuclear power was indispensable for the solution of the energy problem since it was the most promising alternative source of energy.

120. Nuclear power was especially important for Japan, which had few indigenous energy resources. Having embarked on nuclear energy development in the mid-fifties, it now had 21 nuclear power reactors in operation with a total generating capacity of approximately 15 million kW(e), accounting for about 12% of the country's total capacity. Nuclear power capacity was planned to be raised to 53 million kW(e) by 1990.

121. With a view to the maximum utilization of the potential energy of uranium, Japan had from the very beginning been trying to develop the advanced thermal reactor and the fast breeder reactor so as to be able to use plutonium. In the area of spent fuel reprocessing the Tokai-mura Reprocessing Plant was shortly to go into full operation and preparations were in hand for the construction in the private sector of a new reprocessing plant large enough to meet the country's future needs. In addition, the pilot plant at Nin-gyo-toge was already producing enriched uranium in small quantities and the technical prospects for commercial-scale enrichment were bright.

122. His Government was sparing no effort to accelerate the development of nuclear energy, for on it depended the future of Japan.

123. One of the major problems involved in nuclear energy development was nuclear safety, to which Japan had always attached importance. After the accident at Three Mile Island in the United States it had increased its efforts in that area and had taken steps to strengthen its systems for operational control and supervision and to review its safety standards. At the same time, contingency measures to be taken in the event of an accident had been reinforced.

124. In that connection, his country hoped that the International Conference on Current Nuclear Power Plant Safety Issues to be held in October in Stockholm under the auspices of the Agency would lead to improved safety measures in all countries and, at the same time, to greater international co-operation in research on nuclear safety.

125. It was needless to say that Japan was developing nuclear energy within the framework of its nuclear non-proliferation policy. However, as nuclear energy development made rapid progress throughout the world, there was growing concern among nations over the danger of possible nuclear proliferation. Measures were therefore being explored to ensure accelerated development of nuclear energy while preventing nuclear proliferation.

126. The International Nuclear Fuel Cycle Evaluation (INFCE) which had been an exercise in that direction, had helped in forming common perceptions regarding the peaceful uses of nuclear energy and in narrowing the hitherto existing gap between views on the nuclear fuel cycle by deepening the mutual understanding of other countries' needs in promoting nuclear energy development. Such activities must be encouraged and, whenever new problems arose, they should be resolved by discussion. The Agency could play a control role in the matter.

127. He hoped that efforts would be made to improve the Agency's safeguards, which played a key role in ensuring nuclear non-proliferation, and to make them more efficient and effective. It was necessary for that purpose to promote research and development related to safeguards, in which field Japan was engaged and proposed to make further efforts.

128. For the Agency's safeguards as a means of ensuring nuclear non-proliferation to be more effective, they must be accepted by all nations, regardless of whether they were nuclear-weapon States or non-nuclear-weapon States and whether or not they were party to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). In that connection, it was important to recall that at the Second NPT Review Conference appeals had been made to all States not party to NPT to accept full-scope safeguards and to nuclear-weapon States that had not yet concluded voluntary submission agreements to accept Agency safeguards.

129. As part of efforts aimed at establishing an international framework following INFCE, studies were already being conducted under the Agency's auspices on international plutonium storage and international spent fuel management; Japan was participating in those studies. If those two concepts were to contribute to the ultimate objective of nuclear non-proliferation, the results of the studies should be fully acceptable to the countries concerned and should help in facilitating the peaceful uses of nuclear energy.

130. Another major problem was supply assurance, and it had now been accepted as a general principle that supply assurance and nuclear non-proliferation were two sides of the same coin. After the establishment by the Board of the Committee on Assurances of Supply it was hoped that the problem would be discussed in depth and that mutual trust among nations would be strengthened so as to make meaningful contributions to the smooth progress of the peaceful uses of nuclear energy.

131. His country was endeavouring to improve the system of physical protection of nuclear material, which was also important from the point of view of preventing the dangers which might result from the misuse of nuclear material.

132. Japan's national policy in nuclear matters was based in the "Three Non-nuclear Principles", namely, not to possess nuclear weapons, not to manufacture them and not to permit their entry into Japan; also, Japan had faithfully carried out its obligations under NPT since ratifying it in June 1976. Its policy was dictated by the wishes of the Japanese people, who would like to see nuclear weapons abolished. His country had devoted itself exclusively to the welfare of its people and of mankind in general by pursuing the peaceful utilization of nuclear energy, and urged all countries to join it in abolishing nuclear weapons.

133. At the Second NPT Review Conference, Japan had strongly advocated the promotion of nuclear disarmament, including a comprehensive test ban. Although a substantive final declaration had not been adopted at the Conference, it was encouraging that no country had questioned the validity or the importance of NPT and that all countries had recognized the need for maintaining and strengthening the NPT regime. There was no doubt that NPT continued to provide a very important legal framework for promoting the peaceful uses of nuclear energy while preventing nuclear proliferation. His country would be actively participating in that activity.

134. The Japanese Government was in favour of increasing technical assistance in the nuclear area to developing countries, especially that provided by the Agency, for the benefits of the peaceful uses of nuclear energy should be available to all. To that end, Japan had, among other things, provided experts and granted fellowships. It would continue to make voluntary contributions at least equal to its assessed share for the Regular Budget to finance the Agency's technical assistance programmes. It must, however, be emphasized that the spirit of self-reliance on the part of recipient countries was very important if they were to reap greater benefits from the technical assistance received.

135. He was happy to note that programmes under the Regional Co-operative Agreement for Research, Development and Training Related to Nuclear Science and Technology (RCA), to which Japan had become a party in 1978, were being implemented with enthusiasm. Japan was assisting the participating countries in the use of radiation and isotopes in food preservation, in industry and in the bio-medical field. In particular, it had assumed a leading role in a project on food irradiation.

136. In order to make the RCA activities more effective, the participating countries were studying the feasibility of setting up an Asian Regional Centre for Research and Training, and it was expected that the survey mission which Japan had dispatched to other countries to study future RCA activities would contribute also to the feasibility study on the Centre.

137. At no time in its history had the International Atomic Energy Agency faced so many diverse problems as it did today in carrying out its work, nor had so much ever been expected from its activities. It was gratifying to note that in the Agency there had never been a confrontation even when there had been conflicts of interests among the Members and that solutions had been explored from the standpoint that all participating countries shared the same problems. That valuable tradition must be maintained, for it would stand it in good stead in carrying out the role expected of it in the future.

138. In the present-day world economic situation the manpower and financial resources available to the Agency would naturally be limited. That ought not to deter the Secretariat from persisting in fulfilling the objectives of the Statute. At the same time, Member States should be more conscious of their obligation to co-operate so that the Agency could contribute more to the welfare and prosperity of mankind.

The meeting rose at 12.50 p.m.