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President: Mr. ASAKAI (Japan)

### CONTENTS

<u>Item of the agenda*</u>	Paragraphs
10      General debate and report of the Board of Governors for 1964 (b) (continued)	1 - 149
Statements by the delegates of:	
Argentina	1 - 17
Mexico	18 - 25
Yugoslavia	26 - 41
United Kingdom of Great Britain and Northern Ireland	42 - 69
Italy	70 - 83
Viet-Nam	84 - 96
Democratic Republic of the Congo	97 - 105
India	106 - 125
Sweden	126 - 132
Brazil	133 - 138
Ceylon	139 - 149

\* GC(IX)/313.

The composition of delegations attending the session is given in document  
GC(IX)/INF/82/Rev.2.

GENERAL DEBATE AND REPORT OF THE BOARD OF GOVERNORS FOR 1964-65  
(GC(IX)/299, 307) (continued)

1. Mr. QUIHILLALT (Argentina) said that his country would continue to give every support to the Agency, whose activities were developing in strict accordance with its statutory obligation "to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world".
2. One of the most important aspects of the Agency's activities at the present time was indubitably the growth in the economic possibilities of nuclear power plants and it was clear that the Agency had made a correct assessment of the situation in deciding to promote work on the construction of power reactors.
3. Confidence in the future of nuclear electricity had encouraged his country's engineers to initiate preliminary studies with a view to assessing the feasibility of setting up a power reactor of 300-500 MW in Argentina; the plant would represent the first contribution of nuclear energy towards meeting the steadily growing electricity requirements of the country. The studies, which were being carried out in collaboration with Agency experts, would shortly be completed and it was hoped to start work on the construction of the reactor in the near future.
4. An agreement concluded with the Agency provided for technical assistance to be given to Argentina to enable it to bring into operation the 5-MW experimental and production reactor RAEP. The reactor, which had almost been completed, had been designed and was being constructed entirely in Argentina.
5. Great interest also attached to work done in connection with the large-scale desalination of sea water; rapid progress could be expected in that field thanks to the constant improvement of techniques and the exchange of technical knowledge. The organization of regional groups to study the use of research reactors was also an extremely useful aspect of the Agency's work and would prepare the way for collaboration between scientists and research centres in the areas in question. He also wished to draw attention to the assistance given to the inter-American conference on the technical and economic problems of producing nuclear electricity in Latin America, which had taken place in Puerto Rico in February.

6. Another very important aspect of the Agency's work concerned the organization of research and the provision of facilities in the biological sciences, and it was fitting that those activities should be carried out in collaboration with WHO. In that connection it was disconcerting to learn from a study prepared by the Agency that the number of radium sources per head was 25 times less in the developing countries than in the technically advanced nations despite the fact that certain varieties of cancer that were particularly vulnerable to small radiation sources were more prevalent in the former.

7. The work done by the Joint FAO/IAEA Division of Atomic Energy in Agriculture, which had been of direct benefit to Argentina, was deserving of praise. A mission of experts had visited Argentina to study the feasibility of installing a pilot irradiation unit for grain disinfestation. Working in conjunction with technicians of the National Commission and officials of the National Grain Board, the mission had toured the interior of the country and had visited five field and six loading elevators. The visit had shown that it was possible to install the unit in one of the silos inspected. The mission had also discussed with representatives of the refrigerating industry and Commission experts possible lines of work on the irradiation of meat and meat products with a view to controlling salmonellosis and other infections. Since agriculture and stock-breeding represented Argentina's main sources of revenue, it was clear that such activities were of considerable importance for the country's economy. For its part, Argentina had collaborated with the Agency in disseminating information on the use of radioisotopes and had sent experts to organize and give courses in Paraguay and Bolivia. Praiseworthy efforts had also been made by the Agency in the field of health and safety, particularly in connection with the problem of radioactive waste disposal. The Agency's work in that connection was of major importance and his country was happy that an Argentine representative was taking part in the work of the Radiation Committee.

8. Argentina was glad to note that progress had been made in the field of safeguards, the operation of which was one of the main objectives of the Agency. It had been the first Latin American country to apply the Agency's safeguards, having concluded an agreement in December 1964 transferring to the Agency the administration of the relevant provisions laid down in an agreement with the United States.

9. On the subject of the costs of safeguards, there was disagreement as to whether they should be borne by the Agency or by the country in which they were applied. The attitude of Argentina was quite clear, namely that they should be borne by the Agency. The reasons had been explained in the Board of Governors.
10. A definitive agreement on that matter should be worked out as soon as possible before too many instruments had been concluded under the Agency's auspices.
11. Countries like Argentina which had transferred responsibility for the administration of safeguards in relation to their bilateral agreements to the Agency, or countries which intended to do so, clearly had the right to have definitive information on the provisions that would be applied, without being exposed to the possibility of changes in the immediate future.
12. In the field of technical assistance, many countries, including Argentina, had benefited from the Agency's collaboration. His country made a special point of backing up those efforts to the maximum extent possible by providing professional training, fellowships and experts, and by organizing regional courses such as the second Pan-American course on nuclear metallurgy, held in Buenos Aires during 1965.
13. Argentina was fully aware of the value of having Agency assistance available for its nuclear programme and it made every effort to meet its financial obligations towards the Agency even though that sometimes involved genuine sacrifices because of the economic difficulties with which his country was beset at the present time.
14. The fusion of the Secretariat's technical assistance services into a single department would give greater flexibility to activities in that field and his country therefore welcomed the re-organization that had been effected.
15. A word of caution needed to be said in connection with the funds used by the Agency to pay for technical assistance activities, which were one of the most useful aspects of the Agency's work from the point of view of the developing countries. As was well known, the technical assistance programme was paid for out of the voluntary contributions of the Member States, which

would amount to a total of about \$8 900 000 for the period 1959-66. The Agency could also call on funds from the Expanded Programme of Technical Assistance (EPTA) and the United Nations Special Fund. Between 1959 and 1966 a total of \$11 600 000 would have been made available to the Agency from those sources. In other words, the Agency had to rely on outside resources for more than 50% of the funds required in order to pay for one of the most important aspects of its work. That state of affairs should be reviewed by the Member States, since it was in the last resort from them that all those contributions came.

16. He was glad to note that a number of new States had joined the Agency during the period under review and he looked forward to the admission of new Members in the future.

17. Argentina would continue to give enthusiastic and resolute support to the Agency. It was his pleasant duty to praise the excellent work being done by the Director General and the members of the Secretariat, to all of whom he extended his sincere congratulations.

18. Mr. CARRILLO-FLORES (Mexico) associated himself with the general gratitude expressed to the Japanese Government for the generous hospitality it had offered to the General Conference; he also congratulated the President, and stated that the Mexican delegation was in favour of the re-appointment of the Director General, whose activity during the past four years at the head of the Agency had won him the grateful recognition of all Member States.

19. He welcomed the new Member States, in particular Costa Rica, with which Mexico had numerous cultural and historic connections.

20. A brief review of man's attitude towards atomic energy in three important historical contexts might not be without interest. In 1945 the atomic age had begun in tragic circumstances. The opening of Pandora's box had led to widespread terror and had initiated a period of peace based not on mutual respect but on reciprocal fear.

21. In 1955 prospects had appeared at Geneva which had allowed scientists of all countries to establish channels of co-operation. It had been a time of great optimism. The possibility of using sea water as a fuel had seemed imminent and it had been felt that the revelation of scientific "secrets" would restore to science its traditional character.

22. The present session of the General Conference was being held at a moment when nuclear progress had reached an advanced stage of development. Nevertheless, the reaction of many people was distrust. If electricity had begun with the electric chair, many more homes would still be using oil lamps. Confidence had steadily risen, however, and there had appeared on the horizon a possibility which promised cheering results: the pairing of atomic energy and the sea to produce fresh water. Like the delegate of Israel, he believed that to be perhaps the most interesting way in which atomic energy could be used for peaceful purposes.

23. The Mexican Government had shown great interest in research on the desalination of brackish and salt water by atomic energy, a type of research which was rendered particularly attractive by the conditions peculiar to the country. Mexico had just installed its first nuclear centre, whose design and coming into being owed much to the contribution of the Agency, its experts and in particular its Director General, whose moral and intellectual authority had been freely lent to the task.

24. Mexico was already taking the first steps to use, not only the products of experimental reactors, but also power reactors intended to provide water and electricity. The country offered exceptional possibilities of application, and he was sure that the Agency and the more advanced countries would provide valuable collaboration.

25. The Mexican delegation wished to pay tribute to the work of the Agency as reflected in the agenda of the present session. The second session of the Preparatory Commission for the Denuclearization of Latin America had been held in Mexico City in August 1965. The Commission had drawn up draft articles on inspection and control which would be incorporated in the multilateral treaty to be signed with a view to establishing in Latin America a zone free of nuclear weapons. The Latin American countries had seen fit to adopt, as a means of providing the control machinery which would be required if the region was to remain denuclearized, the Agency safeguards system, which would thus become for the first time a means of contributing, on the regional scale, to nuclear disarmament and world peace.

26. Mr. SALOM-SUICA (Yugoslavia) congratulated the President on his election and thanked the Japanese Government for its generous hospitality.

27. At previous sessions of the General Conference, his delegation had expressed the hope that international relations would continue to improve, thus creating conditions favourable to disarmament and the maintenance of a durable peace, together with the possibility of releasing considerable material resources for developing the less fortunate regions of the world. The Agency would then have been able to play a more important role. That hope had not been realized. Yugoslavia did not cease to fight for the liberty of peoples, for peaceful co-existence and co-operation, against the proliferation of nuclear weapons, for banning the testing and use of nuclear weapons and for general and complete disarmament. Faithful to that policy and anxious to hasten the advent of an era more favourable to disarmament, the Yugoslav delegation was submitting to the General Conference, together with other delegations, the draft resolution issued in document GC(IX)/316.

28. The Agency had shown satisfactory results in the course of the past year, and credit was due as much to the Secretariat as to the Board, which had shown a great spirit of conciliation.

29. Without wishing at such an early stage to pass judgement on the Agency's biennial programme, he was pleased with its positive tendencies and with the efforts made to carry out the integrated projects of technical assistance, the co-ordinated research programmes and the enterprises common to the Agency and to other organizations of the United Nations family.

30. With regard to nuclear power and reactor technology, the Agency's activity was rather limited, especially from the economic and technical point of view. It might even be claimed that it was in a state of stagnation, in relation to the increasing number of requests for technical assistance and the speed of the progress made throughout the world.

31. The explanation provided, to the effect that the lack of resources and the shortage of staff made it impossible for the Secretariat to carry out some of its tasks relating to nuclear power, power reactors and economic assessments, was hardly satisfactory.

32. The carrying out of economic studies and the analysis and dissemination of the results obtained should be one of the Agency's main preoccupations; it should publish the results in due time, and promote the development of modern

methods of economic assessment and comparison, in particular with regard to the problems posed by the optimization of nuclear power stations and their integration in power grids.

33. The Agency had been very active in the field of organizing technical and scientific meetings, training courses, etc. and, for some years, the number of those meetings throughout the world had been increasing, together with the risk of duplication. It would therefore be advisable to co-ordinate those activities better, to draw up a more satisfactory calendar for the scientific meetings organized by the Agency and to define the criteria for the choice of subjects to be studied.

34. It would in that connection be extremely useful to set up a large international centre for assembling and disseminating knowledge, information and scientific and technical data, which might become an important means of international co-operation in the field of scientific information.

35. The Revised Safeguards System would mean that the effectiveness of safeguards would be increased, while affording the possibility of adapting them to the rapid development of nuclear energy in the countries where they were applied and of lightening the burden which they constituted for countries receiving assistance. He hoped that the Agency would continue to do everything to secure a still greater improvement in the effectiveness of the safeguards system, by simplifying application procedures and reducing the cost to the receiving countries.

36. Regarding the Consolidated Budget, the Yugoslav delegation could not, under present conditions, approve the intention still further to increase the staff of the Secretariat and of the Seibersdorf Laboratory, but it was in favour of the increased allocations under the Operational Budget intended to finance the technical assistance and training programmes and also of those under the Regular Budget for health and safety and scientific and conferences publications.

37. An increasing number of countries in process of industrialization were intending to build nuclear power stations, preparing nuclear power programmes or drawing up power reactor projects. However, such work called for heavy initial investments and the establishment of a nuclear infrastructure. The supply of capital in those countries was extremely limited, and if the conditions

governing the grant of foreign credits were more favourable, the development of the nuclear power industry would be accelerated. Action should therefore be taken to mobilize the financial resources available through international credit institutions and establish a more favourable atmosphere in financial circles, which would make it possible to meet the individual or group requests submitted by Member States in connection with nuclear power station construction, in accordance with Article XI.B of the Statute.

38. From the very beginning, co-operation between the Agency and Yugoslavia had been highly constructive and fruitful. As far as technical assistance and EPTA were concerned, emphasis had been placed primarily on fellowships and training, which had enabled Yugoslavia to launch a national atomic energy programme. Assistance had then been extended to research contracts, experts, and specialized equipment, and valuable aid had likewise been rendered in the spheres of nuclear research and agriculture by the Special Fund. Yugoslavia had thus been able to draw up an extensive programme for the construction of modern laboratories intended for research on means of increasing agricultural production and of applying nuclear techniques to veterinary medicine and silviculture. As the Director General had stated, the Agency was executing agent for the Special Fund under that project, and great credit was due to the Agency staff, whose valuable aid had been of great assistance to Yugoslavia.

39. Other projects, including one for the establishment at Skoplje of a centre for application of radioisotopes in industry and hydrology, were in process of implementation with Agency and United Nations assistance.

40. For its part Yugoslavia had been able to place experts at the Agency's disposal and also to make available a number of fellowships, which had been granted principally to trainees from the developing countries. Furthermore, Yugoslavia was ready to intensify all forms of co-operation with the Agency in the fields of power reactor and nuclear power station technology. The country's research centres, industry and design offices had undertaken studies which showed that the electricity grid would require nuclear power stations as from 1972-75.

41. The Agency had made effective use of its limited resources, and he was convinced that, in view of the changes that had occurred in the world, it would become even more the focal point of a broader and more constructive co-operation in matters of nuclear energy, particularly as regards its applications in the

developing countries, and that, under the guidance of its present Director General, the dynamism which the Agency had acquired would achieve its full expression, especially in the sphere of nuclear power.

42. Sir William PENNEY (United Kingdom) congratulated the President on his election and expressed his delegation's gratitude to the Japanese Government for the arrangements it had made for the General Conference.

43. His Government shared in the universal desire that atomic energy should be used only for peaceful purposes, and had a high regard for the Agency, both for its work in promoting the peaceful uses of atomic energy and for its valuable contribution towards ensuring that all nations could share in the great benefits deriving from those uses.

44. The previous year had been highly satisfactory in the United Kingdom as regards progress on the peaceful uses of atomic energy. The Magnox power stations, which constituted the first phase of the United Kingdom nuclear power programme, had established themselves as reliable in performance, with high availability. Nine years of operational experience had now been accumulated with the Calder reactors, and over three years with the first two civil stations; the ninth civil power station of the Magnox type would probably be completed within about three years.

45. Regarding the second phase of the United Kingdom nuclear programme, a most important decision had been the selection of the advanced gas-cooled reactor system for its first station, the Dungeness 'B' station, to generate 1200 MW(e). It was significant that nuclear power was now competitive with conventional power in the United Kingdom. Dungeness 'B' would, on conservative financial assumptions, generate electricity at 15% below the cost of generation in base-load coal-fired stations.

46. Work was also progressing on other systems. In two years' time a 100-MW(e) steam-generating, heavy-water reactor, which should be attractive in small as well as large sizes, would be commissioned. All the thermal neutron systems could develop still further, and the United Kingdom was beginning to realize the wide hopes for nuclear power which it had always entertained.

47. By the end of 1966 the main centre of the United Kingdom interest in converters, the Dragon reactor, built jointly by a group of European countries,

in England, should have completed a year's operation at full power and the data on which to assess that reactor type would then be available.

48. The United Kingdom had growing confidence in all aspects of the fast-reactor system, to which the Atomic Energy Authority was applying more than 40% of its reactor development effort. Attention was mainly concentrated on liquid-metal cooling and on plutonium-uranium ceramic fuels, as the technologies likely to lead most quickly to economic exploitation, and the very large fuel development programme was supported by the 60-MW Dounreay Experimental Reactor, which continued to operate well. Within about fifteen years the fast-reactor system would find increasing application in the United Kingdom's commercial programme.

49. The universal and growing use of isotopes was very striking. Experience in the United Kingdom, as a supplier and user of radioisotopes, had shown that their use continued to increase at about 15% each year on average over all fields of application. A significant growth point was the use of neutron-deficient isotopes.

50. The use of gamma radiation for sterilizing medical supplies was now thoroughly well proven and about  $1\frac{1}{2}$  megacuries of cobalt-60 had been installed for that purpose.

51. The growth of world population and the rise in standards of living was leading to increasing awareness of the pressure on the world's fresh-water resources; the situation was already precarious in many countries. The United Kingdom Government therefore recognized the urgency of the Agency's work in studying prospects for large-scale economic desalting of brackish or sea water, and had allocated resources for the development of desalination techniques. The further development of existing techniques using thermal-heat sources would be studied and the prospects for using nuclear power for the purpose would be examined.

52. Health and safety was a question of general interest, and recent experience in the United Kingdom had shown that plants previously thought to be inaccessible could in fact be entered. Examples were the decontamination and partial demolition of the first plutonium separation plant at Windscale, where no difficulty had been encountered in meeting high standards of health and safety, and the retrieval of a camera (used for photographic inspection of a Calder reactor during refuelling shut-down) which had accidentally fallen between the

graphite core and the pressure shell; in the latter case the limiting factors had proved to be heat and coolant atmosphere, not radiation, the exposures in the case of personnel involved all being within a quarterly limit of three rads.

53. The Agency was carrying out a most important function in drawing up generally acceptable codes in the field of health and safety, as when conflicting views stemmed from long-established national practice, or national legislation, they could be deeply entrenched. The Agency had done a valuable service in providing the revised regulations, published in 1965, covering the complex problems raised by the transport of radioactive materials<sup>1/</sup>; solution of these problems was of vital importance for the growth of international trade and co-operation in the nuclear field. The United Kingdom was pleased that its experts had been able to play a full part in helping to work out the regulations, and hoped that the code would win from all countries the speedy acceptance which it merited. Using rules derived directly from those produced by the Agency, the first charge of fuel elements for the Tokai-mura nuclear power station in Japan had been safely and satisfactorily shipped from the United Kingdom.

54. The organization of conferences and symposia, and the early publication of the records of the proceedings, was establishing the Agency as a main channel of information exchange. Even in such an important field, however, there was a risk of reducing the value of the books and pamphlets through holding, and publishing the proceedings of, too many conferences. An over-wide interpretation of atomic interests was also undesirable.

55. The United Kingdom considered that an outstanding achievement of the Agency during the past year had been the elaboration of a revised safeguards system, which had been provisionally approved by the Board in February, and was now before the Conference. The United Kingdom hoped that it would form a generally acceptable basis for future safeguarding operations. Besides participating in the work of the Working Group to Review the Agency's Safeguards System, the United Kingdom had contributed to the growth of the safeguards system by being party to two safeguards agreements involving the Agency, the other parties being Denmark in one case and Japan in the other.

56. Negotiations involving safeguards were also beginning between the Agency, the United Kingdom and Sweden. Still more significantly, the United Kingdom

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<sup>1/</sup> STI/PUB/97.

had offered to submit one of its own nuclear power stations, Bradwell, to Agency safeguards, and negotiations to implement the offer were in progress. The Bradwell station with its two reactors, each producing 150 MW(e), was the largest station so far to be put under Agency safeguards. The United Kingdom, convinced of the value of the safeguards system, was confident that the Agency's Inspectorate would soon learn how to remove the natural anxiety of reactor operators that inspection might interfere with efficient operation, and was glad to offer the inspectors experience on large power reactors. It was to be hoped that the example would help to build general confidence in the system and would encourage other countries to introduce safeguards more widely.

57. The Agency should continue to give special attention to the use of isotopes, particularly their application to some of the biological and agricultural problems of the less-developed countries, a task in which the United Kingdom would be glad to assist other Member States.

58. The United Kingdom delegation believed that the Department of Technical Assistance, established in 1964, was functioning satisfactorily. The structural change which brought training into the Department had been amply justified. Of all the kinds of technical assistance which the Agency provided, training was perhaps the most important, because it enabled the developing countries in time to help themselves. It was however essential to ensure, as far as possible, that the nationals of developing countries were trained for tasks that would arise in the nuclear programmes of their own countries, so that their skill was not wasted.

59. The realization that resources available to the Agency for training were limited had moved the United Kingdom, during the past year, to submit to the Board a memorandum on financial support for training centres. Clearly, the Agency would not have enough resources to support over a long term every regional training centre that was proposed; even a single commitment of that nature tied up resources on which many other calls would arise. The United Kingdom memorandum examined that question and suggested certain criteria by which the Agency might be guided in its policy.

60. In 1958, the United Kingdom had offered to make available to the Agency cost-free attachments for periods of up to two years at the Wantage Research Laboratory of the Atomic Energy Authority. The offer had been renewed several times since 1958 and, under the scheme, a number of Agency fellows had been

awarded places at Wantage and had worked as members of the research teams. The arrangement had been of mutual benefit to those concerned, and the offer to receive Agency fellows at Wantage remained open, as did the offer made in 1963 by the United Kingdom Central Electricity Generating Board to accept a limited number of Agency fellows without charge at its nuclear power stations and its Research and Development Laboratory.

61. The United Kingdom delegation had no hesitation in endorsing the Board's recommendation that Dr. Eklund be offered a further term of four years as Director General. Many suggestions would certainly emerge from the General Conference, particularly about the future work of the Agency. The United Kingdom delegation wished to offer some comments which were intended to be constructive.

62. The Agency was faced with a number of difficulties in the field of its own competence, some of which had already been referred to by previous speakers. The problem of how to prevent the proliferation of nuclear weapons and even more the problems raised in the efforts to secure general and complete disarmament were extremely complicated, much more so, in fact, than those problems with which the General Conference properly had to deal. They could not be resolved by simple appeals to Member States to show goodwill or to undertake certain commitments unconditionally.

63. Those problems had occupied numerous sessions of the Geneva Disarmament Committee of the United Nations and were now to be taken up by the General Assembly. The United Kingdom had taken an active part in the discussions and had put forward constructive proposals. If the General Conference widened its debates to include broad and deep questions for which the United Nations was the proper international forum, the inevitable consequence would be that the quality of the Agency's work in its specialized field would suffer.

64. Any efforts by the General Conference to intervene in matters beyond its competence could serve only to complicate, rather than to advance, the achievement of disarmament. In the view of the United Kingdom and of many other delegations, the proposal in document GC(IX)/316 was, even on the widest interpretation, quite outside the objectives and the functions of the Agency set out in Articles II and III of the Statute. That was true even if the proposal was couched in terms of an appeal rather than a request or invitation; there was no magic in the use of the word "appeal" that exempted it from the ordinary provisions of the Statute.

65. On behalf of the United Kingdom and certain other delegations, he wished to introduce the following draft resolution:

"The General Conference,

- (a) Recognizing the desire of Member States to support measures and negotiations designed to obtain agreement on general and complete disarmament under effective international control,
- (b) Noting with deep satisfaction that disarmament negotiations are continuing to be actively pursued in the appropriate political organs of the United Nations, and
- (c) Bearing in mind that the objectives and functions of the Agency are as set forth in Articles II and III of its Statute, and that pursuant to these objectives and functions the Agency has established a system of controls to enable it "to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world" and, at the same time, to "ensure, so far as it is able, that assistance provided by it or at its request or under its supervision or control is not used in such a way as to further any military purpose",

Decides that it is not competent to deal with the draft resolution contained in document GC(IX)/316."

66. Turning from problems of disarmament to the Agency's affairs, he wished to comment on the need for stringent control of finance. The United Kingdom did not favour a too rapid growth in the Agency's expenditure. Governments were concerned with the rising costs of scientific work, and there were many fields of endeavour to be supported. When the Conference came to consider financial questions, the United Kingdom delegation would press strongly for the Secretariat to make future improvements in its planning practices. The present two-year plan represented a good beginning, but did not go far enough. In future years, the biennial plan should be more detailed and more closely related to the likely cost of each phase of the programme. The annual budgets and future plans should be based on a realistic assessment of when the necessary manpower was likely to become available.

67. The financing of the Agency's Operational Budget continued to be a matter of anxiety to the United Kingdom delegation. Quite rightly, the Agency was concerned to help the developing countries though it was important that the

Secretariat should not regard research contracts which had a scientific purpose as a concealed form of technical assistance. Hitherto, the United Kingdom had supported the successive annual requests for voluntary contributions to the Operational Budget which the Secretariat had put forward. Apart from providing money, the United Kingdom had found, and continued to find, many places at educational and training establishments in the United Kingdom for students sent by the Agency, and had provided, without charge to the Agency, experts for short-term missions to developing countries. It was a matter of deep concern that a number of Member States systematically under-contributed or did not contribute at all to the Operational Budget, and it was clearly inequitable that a few States should be expected to go on paying for the work done under that Budget if other States did not join in. It was not enough to contribute only "in kind". He did not underrate the intention behind the gifts of equipment made available to the Secretariat or to particular countries through the medium of the Agency, nor did he doubt the potential usefulness of the equipment in question, but such gifts, however good in themselves, might not be what the developing countries really wanted. They might think that particular gifts would tend to direct too much of their own effort in a particular direction, whereas they wished to decide for themselves. Unless the Agency had flexibility in the use of its resources, the true wishes of Member States could not be properly met.

68. He hoped to see a steadily increasing measure of collaboration between the Agency and other international organizations which had an interest in making use of the techniques of atomic energy. The Agency could not and should not seek to keep the use of atomic energy as its private business, and he therefore welcomed the establishment of a Joint FAO/IAEA Division of Atomic Energy in Agriculture. Such developments should in principle facilitate close co-operation between the two organizations, and might be a solution which could be applied elsewhere.

69. The United Kingdom delegation had been pleased to note in the Director General's latest periodic report an increasing number of references to co-operation with various international organizations in projects concerned with training, research and the drawing up of regulatory codes. The Agency's importance in international affairs was increasing, and would continue to do so in measure with the ever-increasing peaceful use of atomic energy.

70. Mr. SCARLATO (Italy) congratulated the President on his election and thanked the Japanese Government for its generous hospitality. The fact that the General Conference was meeting in Tokyo emphasized yet again the extent and world-wide scale of the role played by the Agency in the nuclear field, and had great symbolic and moral value.

71. Twenty years after the tragic days of Hiroshima and Nagasaki, atomic energy was no longer a terrible force capable of bringing to humanity only grief and destruction, but was becoming one of the principal factors in the economic and social development of the world.

72. He noted with great satisfaction the re-appointment of Mr. Eklund as the head of the Agency's Secretariat, and was sure that he would lead the Agency on to ever higher and more important goals. He also noted with equal satisfaction the excellent work carried out by the Agency in all its fields of activity and the brilliant results obtained, in particular the success of the International Centre for Theoretical Physics in Trieste.

73. The Trieste Centre had been set up not only to develop the study of theoretical physics, but also with other important aims in mind, such as international co-operation and assistance to developing countries. The study of physics had been considerably advanced by the contribution of the scientists of exceptional quality participating in the Centre's activity. Plasma physics, high-energy physics and elementary-particle physics had been extensively studied, and the results obtained had appeared in some 90 papers. The Centre was also a stimulating meeting-place for scientists from the East and the West. Twenty-eight countries had been represented there and groups from the Soviet Union, the United States and Western Europe had participated in the two seminars organized during its first year. The Centre had encouraged and significantly aided physicists from developing countries.

74. The Director of the Centre, Professor Salam, and his co-workers deserved congratulation. There were, however, still financial problems; the contributions received did not, in fact, meet the Centre's needs. The Agency's financial participation covered only a small part of the Institute's budget; Italy and from time to time various other organizations provided the rest. Furthermore, Article 10 of the agreement between the Agency and Italy on the setting up of the Centre provided for a duration of only four years; it was, however, desirable that the Centre should become a permanent institution of the Agency, financed appropriately under the Agency's budget.

75. He welcomed the reorganization on the administrative level of the Secretariat's services concerned with technical assistance, which had led to improved and more rapid operation. He also approved the setting up of the Joint FAO/IAEA Division of Atomic Energy in Agriculture.

76. By approving the Revised Safeguards System on 25 February 1965, the Board of Governors had adapted the Agency's safeguards system to the new demands made on it by the latest technological developments; the Agency was thus in a position to carry out effectively one of its basic tasks, the control of the use of nuclear installations and equipment for peaceful purposes.

77. The continual process of change also included the revision of standards and regulations for transport, safety and health. The Agency had undertaken that task with the aid of experts from Member States in order to have always available up-to-date texts corresponding to the needs dictated by the rapid development of nuclear technology.

78. In Italy, the first five-year plan of the National Nuclear Energy Commission, which had ended in 1964, had above all made it possible to lay the foundations necessary for further development; research centres and laboratories had been built and equipped, personnel had been trained and technological research had been undertaken. The second five-year plan, with a budget of 150 000 million lire, had been approved in May 1965, and had therefore barely begun. The purposes of the Italian nuclear programme could be summed up as: (a) the greatest possible reduction in the cost of centres of proven type, as regards both the initial outlay and the cost of the power produced; (b) the development of advanced converter reactors which would combine the lower cost of reactors of proven type with limited fuel requirements; and (c) the development of fast breeder reactors.

79. Italy had already acquired considerable experience in the construction and operation of reactors of proven type. The three nuclear centres in operation were providing a mass of valuable information for the construction of new installations.

80. In the field of thermal-neutron converter reactors, Italy's efforts were principally concentrated on heavy-water reactors. The steam-cooled reactor programme had been under way for some time, and the Commission had decided to

accelerate it, providing special financial arrangements under the second five-year plan. It would thus be possible to develop in Italy a converter reactor with particularly interesting characteristics.

81. In the field of fast-breeder reactors the Commission had for some time been carrying out an extensive research programme which would continue and would, in fact, be reinforced by the second five-year plan.

82. Apart from its programme on the different types of reactors, the Commission was also interested in the problems of fuel fabrication and processing; in particular, a study would be made of the recycling of plutonium in thermal-neutron reactors. The development of the programme would no doubt give rise to a large number of problems, of which some would be difficult to solve; that in turn had led to agreements for collaboration with various countries.

83. He hoped that the Agency could play a decisive part in ensuring, once and for all, that atomic energy was a factor promoting the economic and social development of humanity and constitute, unencumbered by ideological and political differences, the highest meeting-point of all those who deeply believed in atomic energy as a peaceful instrument for the creation of a better world.

84. Mr. LE-VAN-THOI (Viet-Nam) warmly congratulated the President on his election and added that the delegation of Viet-Nam was particularly grateful for the hospitality offered by the Japanese Government.

85. A welcome marked by such fine courtesy as the delegates to the Conference had everywhere encountered must have enabled them to discover, with delight, that eternal spirit of Japan which a Japanese poet of the eighteenth century had compared to the exquisite fragrance of the cherry blossoms beneath the first rays of the morning sun. Moreover, the achievements of the valiant Japanese people in every sphere would serve to demonstrate what could be accomplished in the way of technological progress if a people was willing to make the necessary effort and to rely first and foremost on its own work for the building of a better future.

86. Very soon twelve years would have gone by since 8 December 1953 when President Eisenhower, speaking before the General Assembly of the United Nations, had launched his appeal for a concerted international effort aimed at enlisting the atom in the service of peace. No doubt the hopes raised by that appeal were far from having been realized in full; it was nonetheless true that, through President Eisenhower's initiative and through the creation of the International Atomic Energy Agency, a new type of international collaboration had been under way for nine years, whose benefits were being felt more every day by the underprivileged nations of the world. As a Member of the Agency, Viet-Nam was particularly happy to say again how keenly it desired to see the Agency pursue and increase its efforts aimed at bringing the benefits of the peaceful applications of atomic energy to a steadily increasing number of countries.

87. The record achieved by the Agency over the past four years, under the guiding hand of Mr. Eklund, was very promising indeed; without reserve, Viet-Nam wished to associate itself with the words of praise which had been spoken on that subject. In congratulating Mr. Eklund on the confidence that the Board had shown in him by renewing his mandate, Viet-Nam wished to assure the Director General of its continued support and willingness to participate in the beneficial activities of the Agency.

88. Co-operation between the Agency and the various specialized agencies interested in the peaceful applications of atomic energy was gratifying, and he was also glad to note that certain projects for regional co-operation, as well as reciprocal arrangements between institutions in developing countries and in the more advanced countries, had been successfully carried out during the past year. The Agency's contributions to the practical applications of radioisotopes and to the standardization of measurements in radiological protection were highly appreciated, as was the support the Agency had consistently given to the developing countries with a view to building up their programmes on uranium fission. Such support had enabled Viet-Nam to carry out a programme of practical research designed principally to extend the use of radioisotopes in agriculture and medicine.

89. With the assistance of experts and equipment obtained through the Agency, a radioisotope laboratory had been set up in the Faculty of Medicine at Saigon; its thyroid programme was already in full swing. A laboratory for the agricultural applications of radioisotopes was to be established in Saigon before the end of 1965. In the very near future Viet-Nam hoped to be able to take an active part in research on soil fertility, using radioactive tracers for the purpose; very special importance was attached to that project, in fact, because of the dominance of agriculture in Viet-Nam's economy. The radioisotopes required for the two laboratories would be furnished largely by the Dalat Nuclear Research Centre, whose work consisted for the most part in activation analysis, studies on animal and plant metabolism, research on mutations brought about by X-rays and neutron irradiation, and measurements of water flow by means of radioisotopes.

90. With regard to radiological protection, the measurements of radioactivity in air and rain water undertaken at Dalat since 1961 had now been extended to Saigon. The films on dosimetry provided by the Dalat centre had proved to be particularly useful. Establishments engaged in radiation work were subject to regular control at Saigon, and a system of radiological control for the whole country would be instituted when the decree regarding protection against ionizing radiation, drafted with the Agency's assistance, was promulgated in the near future. The authorities of Viet-Nam planned to make frequent use in years to come of that new type of assistance, in order to provide their country with an appropriate body of legislation conforming to the recommendations of the Agency. They hoped that the basic standards for radiation protection, recently adopted by the Board, would obtain the force of law by being incorporated in the national legislation of an increasing number of countries. Finally, they were pleased to note that the regulations for transport of radioactive materials had already been incorporated in a number of the most important international conventions.

91. In the past year, Viet-Nam had done its best to disseminate a knowledge of atomic science and to interest an increasing number of its own technicians in the new disciplines associated with it. Introductory courses in the techniques of applying radioisotopes in medicine and agriculture had been organized, and popular scientific pamphlets had been published.

92. Viet-Nam was well aware that it lacked the personnel and the means required for nuclear research and placed all its hopes in the Agency's technical assistance programme. As in the past, it would accept visiting professors and fellowships with gratitude. With regard to research, it hoped that the Agency would continue to contribute to its programme for the application of isotopes in medicine and agriculture.

93. Technical assistance constituted one of the most valuable aspects of the Agency's work, but the fact was that the resources available for that purpose were becoming ever more inadequate to meet the volume of requests. The Agency was faced with a serious problem in that respect, which could be solved only if all Member States, particularly the advanced ones, recognized their moral obligation to make an adequate contribution to financing the Agency's technical assistance programme. In spite of the difficult situation in which it found itself, Viet-Nam had been anxious to obey the call of international solidarity by pledging a contribution to the General Fund for the coming year equal to its assessment under the Agency's Regular Budget for 1966.

94. The establishment of the post of Agency regional representative for South East Asia and the Far East marked a fresh stage on the road to consolidating regional co-operation. Thanks to the contacts which he had already made with the authorities responsible for national atomic programmes, the representative would be in a position to concentrate his main efforts in those fields in which the Agency's assistance would be capable of benefiting several countries simultaneously.

95. He greatly regretted that reference had been made at the Conference to the aggression of which Viet-Nam was at present a victim. However, since such reference had been made, and to avoid any misunderstanding, he would just like to restate the facts and say that Viet-Nam was indeed at present going through the tragedy of a war which it did not want and which had been imposed on it from outside by the very people who were preaching co-existence while depriving the Vietnamese people of the right freely to decide their own destiny.

96. Whatever the vicissitudes of the moment, Viet-Nam maintained an unshakeable faith in the work of international co-operation going on under the auspices of the International Atomic Energy Agency. The General Conference could rest

assured that Viet-Nam would spare no efforts to ensure that its people, in the fullness of time, participated in the grand undertaking of enlisting the atom in the service of man.

97. Mr. MOMBONG (Democratic Republic of the Congo) associated his delegation with all those which had addressed their congratulations to the President and expressed their thanks to the Japanese Government.

98. He felt himself obliged to refer to the nuclear explosion which had taken place on 16 October 1964 in the Takla Makan desert in China, and was wondering anxiously what were now the chances for the survival of civilization on earth following an atomic war. That question involved another and more direct one: how could one promote the peaceful uses of atomic energy while at the same time ensuring that its use for military ends was not promoted at the same time?

99. The establishment of a safeguards system undoubtedly constituted a praiseworthy and necessary action, but care should be taken to ensure that the system was not unnecessarily burdensome. The principle by which control of nuclear materials should involve inspection of the facilities in which the materials were located and also inspection of the equipment directly connected with their production was valuable but at the same time dangerous. Its effect was to open the door to interpretations which might lead to an endless number of disputes, for it was difficult to evolve a safeguards system which did not seriously hinder the development of atomic energy in the developing countries. The great majority of those countries still lacked the expertise and experience necessary in highly specialized techniques, and would be unable to develop a nuclear infrastructure without the assistance of the Agency or of the major industrial Powers. The safeguards system should therefore be sufficiently strict to prevent the use of nuclear technical assistance for military purposes while at the same time avoiding taking on a discriminatory character vis-à-vis the developing countries.

100. The present draft sought to avoid that reef by introducing the concept of "principal nuclear facilities"; it provided that facilities of that kind should be regarded as "substantially supplied" under a project agreement and hence subject to safeguards "if the Board has so determined". The Board of Governors

thus became the arbiter in the matter, and it was therefore necessary that all the various interests should be equitably represented and defended therein. That was why the Congolese Government had considered it necessary to call attention to what it believed to be serious defects in the Agency's governing body by proposing an amendment to Article VI.A.2 of the Statute. Deferring to the wishes of the Board, the Congolese Government was prepared to agree that its amendment should be taken up at the tenth session of the General Conference.

101. Without going into greater detail, he would stress here and now that a number of countries retained their seats on the Board in an arbitrary manner. One of them in particular seemed to remain permanently on the Board by virtue of Article VI.A.1 of the Statute. The country which had been technologically the most advanced Member seven years ago, when the Agency had been set up, was now no longer necessarily in that position; similarly, the countries which had been uranium producers ten years ago might very easily no longer be so now. Refusal to recognize hard facts was an unscientific attitude and resulted in giving way to the demands of a purely political equilibrium, which like all day-to-day politics was necessarily unstable.

102. Turning to the Agency's budget, he considered that the additional expenditure automatically resulting from the increased cost of living in Vienna should not always be met by the elimination of scientific work and still less by that of technical assistance activities, as appeared to have been the case when, in the last few weeks, it had been necessary to make up \$100 000 spent on salary increases. If in such circumstances the budget could not be increased, consideration should be given to reducing the Agency's staff.

103. Some months previously the Congo had officially inaugurated its Atomic Energy Commission (Commissariat aux sciences nucléaires). The Trico Centre at Leopoldville was expanding continually, but it still needed equipment and scientific staff from outside in order to be able to provide, in the Congo and the neighbouring countries which so desired, all the benefits of the peaceful uses of atomic energy.

104. The Congolese Government had greatly appreciated the Agency's generous assistance, which had taken the form of the provision of research equipment and the grant of research contracts. It hoped that the Agency would favourably consider the four new research contracts which the Congolese atomic centre had proposed during the present year.

105. Having had occasion to observe the competence of the Director General and his administration, the Congolese delegation would be happy to give its full support to Mr. Sigvard Eklund's candidature for a further term of office as Director General.

106. Mr. TYABJI (India), after congratulating the President on his election and, through him, thanking the Japanese Government for extending such warm-hearted hospitality to the Conference, observed how fitting it was that, twenty years after the War, the representatives of so many nations of the world should be brought together in Tokyo by an Agency devoted solely to the peaceful uses of atomic energy, and that they should reaffirm in that setting their determination to do everything possible to ensure that atomic energy would never again be used for destructive purposes.

107. He also wished to welcome the six new Members of the Agency, and to assure them of India's whole-hearted co-operation.

108. While not everything that had happened in the world since the last session had been for the good of mankind, the spectacular achievements of the Soviet Union and the United States in the field of space research did fall into that category. The two countries concerned had accomplished their great feats in a spirit of competitive but peaceful co-existence which was heartening to all who desired peace.

109. On the other hand, the explosion of two atomic devices by the People's Republic of China against the wishes of the majority of nations, as manifested by the great number of signatures to the test ban treaty, could only be described as deplorable. If China proceeded to stockpile atomic weapons it might not be possible for a number of other countries, including India, which were capable of producing such weapons but which so far had refrained from doing so, to continue their present policy.

110. The Indian view was that the way to stop the further spread of nuclear weapons was not so much to prevent more countries from acquiring them as to make those countries which already had them give them up. An atmosphere propitious to progress in that direction could be created by changing the present general approach to the problem. The custom of dividing countries into

nuclear Powers and non-nuclear Powers, depending on whether they had or had not developed atomic weapons, should be abandoned as anachronistic, for it belonged to the days when atomic programmes existed only for military purposes and significant peaceful uses of atomic energy had not been developed. That stage had now been passed.

111. The history of the development of atomic energy was a good illustration of that point. The first atomic bomb had been exploded in 1945 but, although nuclear power had made its initial appearance in the early nineteen-fifties, large-scale atomic power stations capable of producing electricity at an economically competitive cost compared with conventional power sources were only now being built. The fact that it had taken twenty years from the explosion of the first bomb to develop economic nuclear power showed that the technology of the latter was far more complex and difficult than that required for producing basic atomic weapons. There were now countries, such as Canada, the Federal Republic of Germany, Japan, Sweden and India, which had made substantial progress in mastering the techniques of nuclear power but which had not devoted any of their resources to the military aspects of atomic energy. To describe such States as "non-nuclear" was therefore quite incorrect, and was indeed harmful: by the wrong emphasis which it placed on the military aspects of nuclear energy it did a disservice to the cause of the Agency, whose sole aim was to encourage its peaceful uses.

112. Turning to the agenda of the Conference, he observed that one of the most important items related to the adoption of the Agency's revised safeguards system. India had always taken the view that the Agency's obligation under its Statute to ensure that the assistance it gave was not used for military purposes should be reasonably interpreted and implemented. The original safeguards system had seemed to attempt the impossible, and by so doing had achieved little. Thanks to the efforts which had been put into devising the revised system, the approach to the question of safeguards was now much more reasonable, and hence the system was more likely to be effective. In particular, the revised system had abandoned the concept that safeguards had to be attached to all and every kind of assistance. Under the new arrangements safeguards would only be attached if a "principal nuclear facility" were

supplied "wholly or substantially" by or through the Agency. That meant that the provision of conventional equipment and materials would not involve safeguards, and it had been precisely the attachment of safeguards to such items that had made the original system discriminatory as between industrially developed and under-developed countries.

113. Although India was gratified that some of the more unjust provisions of the original system had now been removed, and was prepared to accept the new arrangements, there were still a number of serious defects which vitiated the effectiveness even of the revised system. For example, the Agency would still be able to supply fissionable materials under safeguards to a country which had a military nuclear programme. That would mean that some of that country's own fissionable materials could be released for military purposes. Thus, even with its full safeguards system in operation, the Agency might be furthering military objectives, and the conclusion was that if the Agency was really to ensure that assistance given by it was not diverted from peaceful uses, it should abstain from giving any assistance in the form of fissionable materials to States which already had an atomic weapons programme.

114. That was only one example which illustrated the basic futility of trying to make the world safe by applying safeguards to some and not to others. The mere attachment of safeguards to the provision of a nuclear facility by the Agency or by a State in no way covered the problem of how to stop the use of atomic weapons by countries which had developed them on their own or with the assistance of others. In the atomic age security was indivisible, and so also must be the system intended to ensure that security. The fact of the matter was that genuine safeguards could not be developed independently of the solution of the disarmament problem.

115. Some States had voluntarily placed a few of their reactors under Agency safeguards, but if those countries had stockpiles of atomic weapons or had other reactors in which they were producing plutonium, the measure of Agency control thus established provided no guarantees to other States which considered themselves threatened.

116. On the other hand, a reactor could contribute nothing to a country's military potential unless there was available a plant for extraction of plutonium from the irradiated fuel. In that connection he would recall a proposal made by the Indian delegation to the Conference on the Statute in 1956, under which all gaseous diffusion and chemical processing plants would be placed under international control, thus obviating the need for attachment of safeguards to source materials, equipment or reactors and eliminating the danger of a clandestine increase in stockpiles of weapons. India still believed that that would be the correct procedure to follow.

117. Referring to the progress of India's nuclear programme during the past year, he said that the construction of the Tarapur Atomic Power Station of 380 MW(e) was making rapid progress and that the station was expected to be operational by 1968. India's second nuclear power station was being constructed in Rajasthan and would have an output of 200 MW(e). The single reactor, of the natural-uranium, heavy-water type, would go into service in 1969.

118. While those two stations were being built with the assistance of the United States and Canada respectively, the second 200-MW(e) unit at the Rajasthan station would be built using India's own resources, as would a twin-reactor 400-MW(e) station to be situated some forty miles south of Madras. That additional capacity was expected to be installed by the end of 1970, when India would have some 1.2 million kW of nuclear capacity in operation.

119. A further 1.8 million kW was expected to be installed by the end of 1975. The grids into which the Tarapur, Rajasthan and Madras stations would feed their power would then be large enough to use reactors with a capacity of 500 or 600 MW(e), and the capacity of each of those stations would be expanded accordingly. By then it was expected that at least one other station would have been built as well.

120. The large-scale programme he had just described was being undertaken because the economics of nuclear power had made significant progress. It was estimated that the Tarapur station would deliver power at a cost of about 6 mills per kWh, while at the Rajasthan and Madras stations the cost was expected to be somewhat less.

121. The two latter stations would each require about 200 tons of heavy water, and it was proposed shortly to embark on the construction of a plant to produce that quantity each year. India already had facilities for producing metallic and ceramic reactor fuel, but for the large programme now envisaged it was proposed to erect more extensive facilities to fabricate all the special materials required. A mine was being developed to produce a thousand tons of uranium ore per day, and a mill to extract uranium concentrates from the ore would go into operation in 1966. The plutonium plant, completed in 1964, had been in regular operation. All these plants and facilities had been designed and built by Indian scientists and engineers.

122. He wished to stress once more India's desire to give all possible assistance to other developing countries in their efforts to enjoy the fruits of atomic energy. India regularly offered fellowships to the Agency, and there were now scientists from a number of countries working at the Atomic Energy Establishment at Trombay. In pursuance of that policy of assisting other States, India had in 1964 given a neutron crystal spectrometer to the Philippines atomic energy research centre, and had recently agreed to install an isotope laboratory in Afghanistan.

123. In order to assist the Agency in its operational programme, India had decided to contribute \$35 000 to the General Fund for the present year. Owing to India's difficult foreign exchange position, the contribution would be in rupees, but in terms of size it was more than it would have been had it been based on assessment. He wished to reaffirm his Government's view that the Agency's Operational Budget should be based on voluntary contributions.

124. The harnessing of atomic energy for peaceful purposes opened up new prospects for serving mankind. At a conference devoted to atomic energy it was therefore appropriate to refer to the most important long-term problem facing the world, namely, the provision of the under-nourished and ill-housed populations of the world with better standards of living. To solve that problem energy had to be supplied in adequate quantities, and it was known that conventional energy sources were or would become inadequate. It was there that atomic energy could make its greatest contribution to human welfare.

125. It seemed appropriate for him to conclude his remarks by quoting what Dr. H.J. Bhabha, Chairman of the Indian Atomic Energy Commission, had said in his presidential address to the first Geneva conference on the peaceful uses of atomic energy: "For the full industrialization of the under-developed countries, for the continuation of our civilization and its further development, atomic energy is not merely an aid; it is an absolute necessity".

126. Mr. BRYNIELSSON (Sweden) said that his delegation was happy to join with others in extending its congratulations to the President on his election, and also highly appreciated the hospitality of the Government of Japan and the excellent arrangements for the Conference in Tokyo.

127. Nuclear power was now becoming economically competitive even in Sweden in spite of the very low prices of conventional fuels and the considerable reserves of hydro power still remaining in the country. The main effort in Swedish nuclear development had been devoted to the adaptation of tank-type reactor technology to heavy-water reactor systems. Swedish experience had shown that the heavy-water-moderated and -cooled system made efficient and economical use of natural uranium and showed great promise for adaptation to a thorium-based fuel cycle. The operation of Sweden's first power reactor in Ågesta had given good results. The next project - the direct-cycle heavy-water boiler at Marviken - was proceeding according to plan and would be completed in 1968. The development work done on tank-type heavy-water reactors in Sweden had also yielded valuable experience for the construction of light-water reactors. A contract had been placed with Swedish industry in the summer of 1965 for the construction of a 400-MW(e) light-water boiler at Oskarshamn, which would be completed by 1970.

128. Thereafter nuclear power was expected to contribute most of the new generating capacity needed in Sweden. From about 1975 onwards at least one big nuclear power unit would be added to the grid every year.

129. He had given that information on the Swedish nuclear power programme mainly as a background to Sweden's views on the most important subject before the Conference, namely, safeguards. Sweden had consistently stressed the importance of developing an international control system that would win universal acceptance. The new safeguards provisions which were before the

Conference represented a considerable step forward, and Sweden hoped that they would obtain unanimous approval. As mentioned by the Director General in his statement, Sweden had already declared its wish to apply Agency safeguards to its bilateral agreements with the United Kingdom and the United States of America. Furthermore, Swedish industry was now offering nuclear power plants on the world market and the Swedish Government expected that the Agency safeguards system would provide the framework for that commercial activity.

130. In view of the rapid expansion and technological development now expected in the nuclear field it was, however, quite clear that the new safeguards system would need revision in the not too distant future. The rules would have to cover other installations than reactors, so as to include the whole fuel cycle. The Swedish power industry and manufacturing industry would face important decisions in the next few years, and it was essential that the technical and economic implications of safeguards, when applied on a large scale, should be clear. The studies required for the extension of the system should therefore be started as soon as possible.

131. Turning to the Agency's general programme of work, his delegation considered that it was developing in a sound manner. Sweden supported the Agency's activities in the field of technical assistance and believed that it was of great importance to place those activities on a firm financial basis. Sweden was therefore once more going to contribute its share of the target set for voluntary contributions to the General Fund, and would in addition make a special contribution to the Agency laboratories in the form of \$30 000 worth of instruments.

132. The Agency's work in organizing conferences and symposia was of great value to all Member States, and his Government was happy to welcome the first Agency symposium to Sweden in November 1965.

133. Mr. de LIMA (Brazil) congratulated the President on his election and thanked the Japanese Government for its hospitality.

134. Largely thanks to the Agency's help Brazil occupied a relatively important position in South America in the application of nuclear energy. Particularly valuable collaboration had been established with France and the United States.

There were now three reactors in the country and three critical facilities. Owing to the regular operation of the São Paulo swimming-pool reactor, it had been possible to increase greatly the medical applications of radioisotopes for diagnosis, therapy and research. Medical demand for certain radioisotopes was being met entirely from domestic production and shipments had started to Paraguay, Bolivia and Peru. As the production of processing cells was not adequate, plans were under way for a new radioisotope production and chemical processing plant.

135. There would be advantage in establishing a large radioisotope production centre in São Paulo where much experience had been gained; the centre would be able to supply short and medium half-life radioisotopes to other South American countries.

136. He welcomed the important meetings arranged by the Agency in South America as they had provided countries with an opportunity for exchanging ideas and seeking solutions to similar problems.

137. As a token of Brazil's support for the Agency, Congress had already approved the Convention on Privileges and Immunities with the Agency and would shortly be ratifying the Convention on Civil Liability for Nuclear Damage.

138. Brazil, being a large country with areas that were without hydro resources and too remote to be supplied with oil at economic cost, stood in great need of nuclear energy in the near future. The Brazilian Nuclear Energy Commission had recently submitted to the President certain considerations on nuclear power problems. No decision had yet been taken on whether or not to initiate immediately a programme of nuclear power production but sooner or later reactors would undoubtedly be operating in the country. For that and other reasons Brazil was anxious to collaborate in the discussion on safeguards.

139. Mr. KRELTSZHEIM (Ceylon) said that as a resident of Tokyo for the past few years he was no stranger to the hospitality and courtesy of the Japanese people, but could not let the present opportunity pass without an expression of thanks and appreciation to the Government of Japan for the painstaking and excellent arrangements it had made for the session. He also congratulated the President on his unanimous election.

140. Ceylon was thankful to the Agency for its continued assistance in the peaceful uses of atomic energy.

141. The Ceylon Government had taken steps to set up a statutory body and an advisory committee to deal with all matters relating to the peaceful uses of atomic energy. Once those bodies were set up it was proposed to draw up regulations pertaining to the import, transport, storage, use and handling of radioactive material and the disposal of radioactive waste. Ceylon appreciated the various offers of assistance the Agency had already made in that connection.

142. The Radioisotope Centre established in 1961 with the assistance of the Agency had been continuing with its own research projects and undergraduate and post-graduate training programmes and had also been assisting the Department of Agriculture, the Tea, Rubber and Coconut Research Institutes, the Department of Health and some University Departments in some of their research projects. Ceylon was now in a position to offer a few places for persons from other countries to follow general courses on the use of radioisotopes or for specific research projects. Four places had been offered to the Agency during the past year but unfortunately no suitable candidates had been available at the time. Ceylon was thankful to the Agency for having arranged a regional course at the Radioisotope Centre and hoped that the Agency would use it for further regional courses, which were urgently required in agriculture, medicine and radiological protection.

143. Among the other types of assistance Ceylon was receiving from the Agency, he referred particularly to the Agency advisers who had been assisting the Cancer Hospital and the Department of Agriculture in a number of research and training projects, the two research contracts awarded to the University of Ceylon for medical and biological studies, and the equipment supplied to the Department of Geological Survey.

144. Ceylon welcomed the appointment of the regional officer who was now stationed in Bangkok and hoped that his appointment would lead to the setting up of a regional office, which would help the Agency to become more intimately aware of the needs and problems of the area.

145. Ceylon appreciated the wide variety of literature received on atomic energy and kindred subjects. The Agency might consider setting up regional libraries to facilitate exchange of literature and information as many countries were not in a position to have comprehensive libraries themselves.

146. He was aware of the practical difficulties which the Agency faced in the placement of experts and advisers. He was aware too that the Agency functioned with limited funds. Those difficulties and limitations had their repercussions in the receiving countries. Advisers occasionally had to leave before the projects they had come to advise on were complete. At times equipment due to arrive with the expert was received only after he had left. The financial necessity of drawing equipment from a wide variety of sources resulted in a lack of uniformity in the equipment made available. If some arrangement for a more uniform supply of equipment could be made, it would help in the twin problems of maintenance and repair on the one hand and the procurement and build-up of a stock of spares on the other.

147. The Agency might also consider undertaking more regional projects, particularly in agriculture and medicine, with provision for a free exchange of techniques and results. A careful balance between long-term and short-term projects would have to be worked out.

148. The Agency's revised safeguards system was a definite improvement on the previous system in that the provision of know-how and financial assistance and the supply of conventional equipment had been clearly excluded from the scope of safeguards. It was also necessary that the system be implemented with that measure of tolerance which would cause the minimum interference in the growth of atomic energy programmes in developing countries.

149. In conclusion, he welcomed the re-appointment of the Director General for a further term of office.

The meeting rose at 6 p.m.