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President: Mr. PERERA (Ceylon)

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* GC(VII)/247.

The composition of delegations attending the session is given in document GC(VII)/INF/66/Rev.2.

APPLICATIONS FOR MEMBERSHIP OF THE AGENCY (GC(VII)/249) (continued)

1. The PRESIDENT said the Board of Governors had submitted a recommendation regarding an application from the Federal Republic of Cameroun for admission to membership of the Agency. The Conference would, he was sure, wish to take a unanimous decision in regard to the application by adopting the draft resolution set out at the end of document GC(VII)/249.

2. The draft resolution was adopted unanimously.

3. The PRESIDENT offered his hearty congratulations to Cameroun on the approval of its application; it would become a Member as soon as its instrument of acceptance of the Statute had been deposited with the Government of the United States of America.

GENERAL DEBATE AND REPORT OF THE BOARD OF GOVERNORS FOR 1962-63 (GC(VII)/228, 243, 250) (continued)

4. Mr. HUANG (China) remarked that a new hope had been brought to the peoples of the world by the signing of the treaty for a limited ban on nuclear tests. The civilized world had lived too long in fear of the destructiveness of its own scientific and technological achievements, so that any progress in halting the mad competition in armaments was greeted with relief and a wave of optimism. Although its terms of reference were limited, the Agency was vitally concerned with the climate of world politics and particularly with the opening up of new possibilities for the peaceful uses of atomic energy. If but a small part of the cost of the nuclear tests carried out during its lifetime could have been diverted to the Agency's purposes, how much more could have been done to harness nuclear power for the betterment of the lot of peoples in developing countries!

5. Many former colonies had become independent during the past twenty years and were for the first time facing their own development problems. Naturally they were most anxious to solve their problems of food, health, education and industrialization, but it would be hard for them to catch up unless the advanced countries made available the fruits of their experience and so enabled modern science and technology to be applied in the shortest possible time. It was particularly urgent that radioisotopes should be put into use in agriculture,

medicine and industry in all developing countries, and that was a matter concerning the Agency at the technical level. But there would be a shortage of capital and technical skill in those countries for many years to come and, despite the Agency's utmost efforts, the training programme to date had been too slow.

6. The Agency must devote the major effort in future planning to speeding up the development of natural resources and public services in the developing countries. Future programmes should aim at more practical and productive projects, which would bring the newly independent peoples a greater sense of security and equality. If peace and freedom were to be preserved, the existing gap between the advanced and the developing countries must not be allowed to widen or persist.

7. The Agency's scope of activity was limited under its Statute. Many other agencies, both in and outside the United Nations, must work together to bring about the desired acceleration and expansion of programmes. By its very character, however, the Agency must take the primary role in pressing for speedier dissemination of scientific knowledge and the application of the peaceful uses of atomic energy in the developing countries. Two avenues of approach must be broached by co-operative effort. The Agency and the related United Nations organizations should give immediate consideration to the possibility of financing power projects in the developing countries through such international financing agencies as the International Bank for Reconstruction and Development, the United Nations Special Fund, and so on. He was not suggesting that nuclear power plants should be the aim for all developing countries; the form of power production selected would depend upon many factors, but power was the most urgent need in all the developing countries and shortage of capital put large-scale projects out of the question. It was even hard for a less-developed country to meet the prevailing terms on which loans were offered. Accordingly, the element of profit in the transactions of international banking agencies should be reduced to the minimum. The second approach involved accelerating the tempo of training and expanding the provision of expert services. Progress to date had been meagre and slow for lack of funds to finance larger projects. The programme must be expanded and the scope of the training broadened.

8. Much technical study and planning would be needed to put those suggestions into effect. More emphasis would have to be given, in the long-term plans, to the needs of the developing countries; the idea that atomic energy was an exclusive privilege of the advanced countries should disappear. Modern scientific methods could quickly bring about a change in mental outlook. The application of science to everyday life in the developing countries should be a co-operative and not a competitive enterprise. The Agency, through its Member States, would have an important role to play in putting that new concept of co-operation into effect, and his own country hoped to contribute to the utmost of its ability.

9. The Republic of China had made a certain amount of progress in nuclear science. The research reactor at the Institute of Nuclear Science had been brought to criticality in April 1961 and had been operating at full power since October 1962. The Institute was used both for training and for fundamental and applied research. Research in the application of isotopes in agriculture was being carried out in a number of other centres and the Medical School of the National University was using them in medicine. Research in nuclear engineering was also being undertaken and personnel were being trained with a view to the production of nuclear power. The building of a nuclear power station was under serious consideration.

10. Following a survey of their possible uses, production of a certain number of radioisotopes had started, as a first step, and the supplies needed for hospitals and medical research institutes were already being delivered. The connection between black-foot disease - a local ailment - and increased amounts of trace elements (arsenic and sodium) in the hair had recently been discovered by means of activation analysis.

11. Many atomic energy projects had been undertaken during the past few years, and although the quality of the work at the beginning had not been as high as might have been hoped, it had gradually and progressively improved.

12. It had been his country's consistent policy to share experience in agricultural techniques with developing countries. Its experience in the development of a nuclear programme might prove equally helpful to those countries, and China was ready to share the knowledge it had gained as one

way of showing its appreciation for the technical assistance it had itself received from friendly countries, from the Agency and from other United Nations organizations. It would be glad to make teams available for work on selected aspects of isotope production and use.

13. Mr. AZAD (Iran) said that, generally speaking, the scientific and technical activities of the Agency during the past year had been fruitful. The Director General and his staff were to be congratulated on the good work done. The growing interest in nuclear power in the developing countries was reflected in an increasing number of requests to the Agency for advice on nuclear power programmes. It was gratifying that the United Nations Special Fund was also showing an interest in nuclear power and had designated the Agency as the Executing Agent for a pre-investment power study in the Philippines.

14. The Agency should devote special attention to the development of dual-purpose power reactors; its approach to the Tunisian project for water de-salting by means of nuclear power was, for instance, a very sound one. Studies on economic aspects of the integration of nuclear power plants into conventional power systems should be further pursued and perhaps accelerated.

15. The number of research reactors in operation or under construction in developing countries was rapidly increasing. Accordingly, many Member States would appreciate more regional study group meetings on the utilization of research reactors, such as those that had been held at Bangkok and Athens. Such meetings would bring about closer collaboration between regional nuclear centres and ensure that their research reactor facilities were put to better use. The meeting in Athens, which he had attended, had been very successful indeed and had resulted in the initiation of informal discussions between Greece, Turkey, Pakistan and Iran on scientific collaboration in the utilization of their reactors.

16. The agreement providing for the establishment of an International Centre for Theoretical Physics, under the auspices of the Agency, was a big forward step toward the attainment of the Agency's objectives. It was gratifying that the Board, after carefully examining all aspects of the matter, had decided to recommend that the Centre be set up, and thanks were also due to the Italian

Government for its generosity. The co-operation of the United Nations Educational, Scientific and Cultural Organization and other competent organizations should be sought in connection with the work in the basic sciences to be carried out at the Centre.

17. The Agency should not devote too much effort to the compilation of nuclear data, which could be done, with Agency collaboration, by advanced nuclear institutes and laboratories in the advanced countries.

18. It was a matter for satisfaction that special attention had been given to the medical uses of radioisotopes under the research contract programme during the past year. In that regard, the Agency should establish closer co-operation with the World Health Organization, which was in a position to make recommendations about priorities.

19. The Agency had done interesting work on the calibration and standardization of radioiodine uptake by the thyroid. So far as he was aware, no international standards of purity and sterility had been established for radioisotopes offered for medical use, and cases had come to light in which the purity and sterility of commercial products had been doubtful. With the increase in radioisotope production at research reactors in both advanced and developing countries that problem would become more urgent, and the Agency could play an important role in establishing norms or standards, particularly for radioisotopes destined to be used in medicine.

20. In the past few years a large number of radiotherapy centres had begun to function in Afro-Asian countries and those centres urgently needed the Agency's assistance, particularly on physical aspects of their work. His delegation welcomed the appointment of an inter-regional adviser on radiotherapy in the Eastern Mediterranean area. More was required, however, in view of that area's needs. A meeting might perhaps be convened similar to the one held in Montreal in 1962, to study different aspects of the problem on the spot and devise a practical solution.

21. The use of radioisotopes in research on problems of malaria eradication was of great interest to Iran. Its long-term eradication programme faced a number of complicated problems which it was hoped might be solved by extensive research with radioisotopes, and two promising projects of the kind were being

carried out in the Iranian Institute of Malariology and Parasitology. That sort of work would be of interest to many other developing countries as well.

22. Iran had noted with satisfaction the holding of regional training courses in the uses of radioisotopes in agriculture, at Ankara, and the award of a research contract for work on the efficiency of fertilizers in a rice-growing area; it was also pleased that fourteen out of twenty-two contracts on radioisotopes applications in agriculture had been awarded to institutions in developing Member States. The holding of panel meetings under the Agency's agricultural research programme seemed to be a sound idea, and the Symposium on the Use and Application of Radioisotopes and Radiation in the Control of Plant and Animal Insect Pests, organized in conjunction with the Food and Agriculture Organization of the United Nations (FAO)[1/], had been a further example of fruitful co-operation between the Agency and other United Nations organizations.

23. Iran attached great importance to work on soil salinity and regretted that thus far the Agency had not taken it up. For many developing countries, Iran among them, the use of radioisotopes in hydrology, including research on the behaviour of surface and underground water, was a matter of first priority, and the Iranian authorities were accordingly following with special attention the experimental investigation being carried out in Turkey in co-operation with FAO.

24. The Agency had not devoted the attention it should to the application of radioisotopes in industry. The survey of the scientific literature and the classification of various industrial applications, although useful, did not go far enough, and not a single research contract had been awarded. The application of radioisotopes in the petroleum and associated chemical industries was of vital importance for Iran.

25. As to radiation protection, his delegation was in favour of the Agency's asking advanced laboratories to co-operate in research of a long and complex nature on such matters as the diagnosis and treatment of radioactive poisoning and the toxic effects of incorporated radionuclides, the results obtained to be publicized through the Agency. The Agency could then concentrate its own

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1/ Held at Athens from 22 to 26 April 1963.

efforts on such basic problems as the safe handling of radioactive waste, radiation dosimetry, regulatory and legal work, and the safety of nuclear installations.

26. It was a matter for satisfaction that, during the past year, safeguards had been extended to cover more reactors. The agreement between the Agency, the United States and Japan to transfer the administration of certain safeguards to the Agency[2/] was of particular importance; the Agency could now prepare itself for a greater role in the application of safeguards to large power reactors, and thereby would be better able to prevent the diversion of fissionable material to military purposes. His delegation looked forward to the general review of safeguards, due to be carried out in 1964.

27. The number of fellowships awarded by the Agency in 1963 was down as compared to 1962, whereas the number of research contracts had increased. That showed a new trend in the Agency's technical assistance activities.

28. He hoped the proposals he had made would reflect Iran's deep interest in enhancing the Agency's effectiveness.

29. Sir Roger MAKINS (United Kingdom) said he found it encouraging that most speakers before him had devoted their remarks to the Agency's mission and practical work and had avoided political matters which were outside its scope. He shared the view that the Agency was in better shape than ever before; moreover, its membership was steadily increasing. He was particularly glad to welcome another Commonwealth country, Nigeria.

30. But there was still some tendency to attempt to use the Agency for the furtherance of political objectives. In that regard, he would first recall the recent statement by the Secretary-General of the United Nations that serious political issues and their bearing on the fundamental principles and specific provisions of the United Nations Charter made it appropriate that such questions be considered by the principal political organs of the United Nations. He would add his own warning: the surest way to handicap and injure the Agency's scientific and technical mission was to involve it in political controversy.

2/ The text of the agreement is reproduced in document INFCIRC/47.

31. However, the recently concluded test ban treaty and its possible consequences were a different matter. The United Kingdom welcomed the fact that the overwhelming majority of Member States had signed the treaty or intended to do so, thus opening up a new and encouraging phase in the development of the peaceful uses of atomic energy and taking the first step towards more general disarmament. His delegation had been glad to co-sponsor the draft resolution before the Conference[3/], pledging its support to the United Nations Secretary-General in dealing with the problems that would arise from the conversion to peaceful purposes of resources released by disarmament.

32. It was right that the Agency should stand ready to perform any tasks which the international community might wish to lay upon it. The best way to prepare for that was to develop the Agency's technical programme and make its work and services as good and as efficient as possible. If nuclear disarmament should in fact take place, the Agency's role was likely to be technical - the provision of advice and services - and it was entirely appropriate that the Director General should give thought to the Agency's statutory responsibilities and keep under review the course of the nuclear test and disarmament discussions. But the nature of the tasks the Agency might be called upon to perform could not be determined at the present time and it would be advisable to proceed circumspectly. Any actual work to be undertaken should be limited in scope, for example to the question, mentioned by the United States delegation, of the examination of safeguards procedures for fuel fabrication facilities and chemical reprocessing plants.

33. Among outstanding developments in atomic energy in the United Kingdom during the past year, the Berkeley and Bradwell nuclear power stations had been officially opened in April 1963, after having been in operation for some months, and had run smoothly and reliably from the start. The average availability of the four reactors, in terms of running hours as a percentage of possible running hours, had been over 90% between the beginning of December and the end of March. The first reactor at the Hunterston station had gone critical on 14 September 1963. When the last station under the present programme, Wylfa, was completed in 1969, the United Kingdom would have a nuclear capacity of nearly 5000 MW. The Government was now considering the size of the nuclear power programme for the years following 1968.

3/ GC(VII)/250.

34. The stations in the existing programme were of the well-established Magnox type. Very good progress had been made in the past twelve months in the development of new reactor systems. The prototype advanced gas-cooled reactor at Windscale had been operating at its full designed power of 28 MW(e) since February 1963. Even on conservative assumptions, large-scale power stations based on that type of reactor should be competitive under United Kingdom conditions with the most efficient of alternative conventional power stations and, furthermore, the system had substantial development potential. If the Windscale reactor continued to go well, it was intended, subject to Government decisions regarding the future programme, to invite tenders in the near future for the construction of the first commercial advanced gas-cooled reactor.

35. The experimental fast reactor at Dounreay had reached its full capacity of 60 MW(t) in July 1963 and now provided an irradiation facility for fast reactor fuel which was at present unique. Construction of a prototype steam-generating heavy-water reactor of 100 MW(e) had begun in May 1963 at the Winfrith Heath establishment. The Dragon project of the European Nuclear Energy Agency, under which a high-temperature gas-cooled reactor was being built, had been extended for three years to March 1967; the reactor was expected to go into operation during the summer of 1964.

36. The Government was consulting the shipping and shipbuilding industries about the possibility of building the first British nuclear merchant ship. So far as the marine propulsion reactor was concerned, the United Kingdom had concentrated during the year on the Vulcain system, which was being developed in collaboration with Belgium, and on an integral boiling reactor; other possibilities were being kept in mind.

37. During the past year the Agency's work had made good progress. Its regulatory activities had included the successful conference in May 1963 which had completed a convention on civil liability in respect of land-based nuclear installations. The review of the transport regulations had been put in hand and, he understood, was proceeding satisfactorily. His delegation was glad that the Board had provisionally approved proposals which would extend the safeguards system to large reactors and had submitted them to the Conference.

38. It further welcomed the first example of a transfer to the Agency of the administration of safeguards, under an agreement between the United States and Japan; the United Kingdom was following suit in the case of its own bilateral agreement with Japan. If the negotiations were successful, the Agency would take over the administration of safeguards at Tokai-Mura, which would be the first nuclear power station to be brought under the Agency's system.

39. The usual scientific activities - scientific meetings, research contracts and the work of the Seibersdorf Laboratory - had gone smoothly. The United Kingdom had had reservations about the proposal to establish an International Centre for Theoretical Physics at Trieste but had accepted the compromise now adopted by the Board and wished the new Centre well. A debt of gratitude was owed to the Italian Government for the generous financial provision that had made the Centre possible.

40. Perhaps the most important development during the past year had been the preparation of the long-term programme for the second half of the 1960's. The Director General and his staff were to be congratulated on the joint memorandum by the Board of Governors and the Director General on long-term planning submitted to the Conference[4/]. In general, the United Kingdom supported the programme laid down and would certainly vote for it. But there were a few comments he would like to make.

41. First, his delegation welcomed the clear recognition, in paragraphs 6 and 7 of the programme, that the period until 1970 would be one of transition and preparation. Nuclear power was one major long-term task. Special circumstances in a developing country might make nuclear power based on present technology an economic proposition in the fairly near future, and the Agency would no doubt do what it could to help in such cases. But during the latter part of the present decade, the Agency's main task in connection with nuclear power would be to help the Member States in general to prepare for the coming of nuclear power on an economic basis and on a large scale in the 1970's.

42. He congratulated the Secretariat on the excellent report submitted on the development of nuclear power in various advanced countries, including the results of their study of United Kingdom experience in planning, building and commissioning the Bradwell station[5/]; the speed with which the study had been completed was remarkable.

4/ GC(VII)/227.

5/ GC(VII)/INF/62.

43. His delegation welcomed the emphasis on helping the developing States to apply radioisotope techniques in agriculture, medicine and hydrology and to a lesser extent in industry, and fully endorsed the statement in paragraph 9 of the joint memorandum on long-term planning. It was to be hoped that the interesting discussion on savings in industry and agriculture through the use of radioisotopes, held earlier in the week, would have stimulated the interest of Member States in those increasingly important applications of atomic energy.

44. The United Kingdom had always expressed the view that the Agency's technical assistance must be based on the requests and programmes of the developing States, so that the assistance given would be related and tailored to the individual circumstances and general economic development of each country. It ought not to be dictated indirectly by the donor States, which might limit the form in which they made assistance available by offering to provide a share of a few large schemes, or even by international bodies trying to lay down priorities for the developing countries. On the other hand, the size of the programme should be based on a realistic estimate of the resources likely to be available. Where resources were limited, the various requests should be assessed against the suitability of the proposed projects in relation to the requesting country's general scientific and economic development.

45. A great deal had been done - the Director General playing a leading part - to secure effective co-operation between the Agency and the United Nations and its specialized agencies. He entirely agreed with the points made by the Director General in that regard in his opening statement, and approved his intention to start negotiations with other United Nations agencies[6/]. It was a matter for satisfaction that the Economic and Social Council of the United Nations (ECOSOC), in a resolution adopted unanimously at its last session, had recognized that the primary responsibility within the United Nations for dealing with the peaceful uses of atomic energy lay with the Agency.[7/] But as the Director General clearly realized, the specialized agencies had a large and legitimate interest in the work which the Agency was doing and could

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6/ See document GC(VII)/OR.73, paras. 58, 61 and 63.

7/ ECOSOC Resolution 986 (XXXVI), reproduced in document INFCIRC/48.

reasonably expect to be consulted on matters of mutual interest at an early and formative stage in Agency planning. A sample of a commonsense approach to the matter was afforded by the joint progress report by the Board of Governors and the Director General to the Conference on co-ordination in power development[8], where clear proposals for future liaison between the various organizations concerned were put forward.

46. The Board's report recognized that the long-term programme had to be flexible and had to be kept under review, not every year but perhaps every two years. His delegation welcomed the related proposal to introduce biennial programming within the framework of annual budgets; its adoption should enable the Secretariat to plan further ahead on a fairly firm basis and hence more effectively. It hoped that the operation of a system of biennial programming might lead Member States to agree to an early amendment of the Statute, so that biennial budgets and biennial meetings of the Conference could be introduced as well. That in turn would lead to more effective planning and some administrative savings, and would enable the Secretariat to devote more of its energies to technical work and less to administration.

47. In connection with the possible financial implications of the programme, the Director General envisaged an increase by 1970 in the Agency's total budget of about one third, bringing it up to just over $13 million a year. Taken in isolation a plan incurring an increase of that size was not unreasonable, but during the period of preparation and transition, most people would agree that there was much to be said for accepting a fairly slow rate of expansion. In the period to 1970, the Agency should certainly not aim at expanding at any faster rate than that envisaged in the joint memorandum on long-term planning.

48. But talk about expansion, long-term programmes, the setting-up of regional centres and the like, was of little use unless those executing the programmes had a fair assurance that funds would be available. So far that assurance had been lacking in relation to the Agency's Operational Budget. In 1962, the United Kingdom had proposed an amendment to the Statute which was designed to remedy the situation by combining the Regular Budget and the Operational Budget into a single budget financed from the assessed contributions of all

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8/ GC(VII)/229.

Member States, at the same time recognizing that the Conference would not wish to take the decision immediately[9]. Any amendment to the Statute should command wide support, and accordingly his delegation had readily agreed that the whole question be referred to the Board again, so that the Board could re-examine it and report to the Conference at its present session.

49. The new proposals now put forward modified the United Kingdom's original idea by imposing a limit on the type of operational expenditure that could be financed from assessed contributions[10]. A number of delegations had already expressed doubts about even those revised compromise proposals. Different reasons were given, but in many cases it was perhaps inevitable that there should be reluctance to pay a contribution which was additional in the sense that many countries had not been paying their share of voluntary contributions. The fact was, however, that no alternative proposals had been put forward to solve the Agency's financial problem; and unless it was solved, the five-year programme could not be properly carried out. He would ask those delegations that had expressed doubts to think again before finally deciding to vote against the Board's proposals.

50. The General Conference was asked to take decisions on two subjects of great importance for the Agency's future: the long-term programme and the amendment of the financial provisions of the Statute. The Board and the Secretariat had worked hard and well on both subjects and had come forward with proposals which, in his delegation's view, provided a sound basis for the Agency's future. It would be surprising if there were no reservations and differences of opinion about those proposals, but for its part the United Kingdom delegation would support them. Their adoption would enhance the Agency's ability to help Member States to turn to account the growing potentialities offered by the peaceful applications of atomic energy.

51. Mr. SCHULTE-MEERMANN (Federal Republic of Germany) said that the Federal Government was firmly convinced that wider international co-operation in promoting scientific and technical progress in all fields could make a decisive contribution to better understanding between nations and could raise

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9/ GC(VI)/205, Annex I.

10/ GC(VII)/236.

standards of living and strengthen peace. Those very considerations had loomed large when the Government had decided, the year before, to establish a Federal Ministry of Scientific Research.

52. Quite recently, with the signing of the Moscow nuclear test ban treaty, international co-operation had achieved something which put new hope into the hearts of men devoted to peace throughout the world. The Federal Government welcomed the treaty banning nuclear tests in the atmosphere, in space and under water, one of the aims of which was to prevent, in the interests of mankind, the occurrence of further radioactive fall-out. The Federal Government hoped the treaty would be the first step towards general disarmament, and that it would also strengthen the desire to eliminate the causes of international tension, which was causing anxiety to all nations and particularly to Germany.

53. The German delegation was pleased that the Agency intended to adopt a long-term programme of activities. The idea of aiming at distant targets had already been found useful and effective in many countries and in other international organizations. In Germany, the Atomic Energy Commission, which contained the best German scientists and experts, had recently prepared a five-year atomic programme, which was awaiting Government approval. Some items which had figured in previous programmes had been revised in the light of experience gained. For the years 1963 to 1967 an expenditure of over $600 million was provided for. The programme was devoted exclusively to peaceful purposes. Special attention was being paid to the preferential encouragement of basic research, almost half of the total expenditure being allocated for that purpose. About one sixth of the expenditure was being allotted to applied research. One third of the programme covered the design and construction of nuclear installations, a field in which private industry had to be accompanied by State encouragement. The short-term reactor development programme provided for a choice of various types - a choice that had not yet been made but which should give ample experience in construction and operation. In the long-term programme priority was given to breeder reactors.

54. The German delegation approved the Agency's draft long-term programme. That programme was rightly based upon recent trends and assigned to the Agency two broad spheres of activity: on the one hand to encourage, promote and co-ordinate scientific and technical research; on the other hand, to help Member States by international action in the peaceful uses of atomic energy.

55. The work of promotion and co-ordination covered research, the use of nuclear power and regulatory activities, all subjects of equal importance.

56. The present system of concluding research contracts with research institutes and centres was costly and, with the Agency's limited resources, could yield relatively few results. Some planning of research, with proper sharing-out of assignments, seemed to be called for. In line with proposals made by the German delegation at the sixth regular session, the long-term programme provided for a selection of research subjects of universal interest. Such subjects could be distributed among institutes in the various countries and handled by them at their own expense, the results being then placed at the Agency's disposal. A procedure of that kind would help to foster contacts between research institutes and would at the same time be of service to all Member States.

57. The use of nuclear power had not yet reached the level anticipated during recent years. However, an investigation of the economics of nuclear power revealed some clear progress. It would be useful for the Agency to pay ever more attention to economic and technical studies. In future, for example, consideration should be given to the inclusion of atomic programmes in general economic and development programmes. In view of the great importance of building up the nuclear industry, the planned co-operation with the United Nations on power seemed both logical and necessary.

58. The Federal Republic supported all the Agency's efforts to establish universal standards for health, safety and civil liability. His country had participated with great satisfaction in the work of the intergovernmental committee which had prepared the Vienna Convention on Civil Liability for Nuclear Damage. In the same way, it had followed with keen interest the proceedings at the Diplomatic Conference held in May 1963. Although the Convention had already been approved by 43 votes to none with 6 abstentions (including that of Germany), more than a dozen countries, among them Germany, had made significant reservations regarding the text which had been adopted. It was to be hoped that the standing committee proposed by the Diplomatic Conference and set up by the Board of Governors would succeed in improving the Convention in various respects.

59. The ever-increasing number of young States joining the Agency lent more and more importance to technical assistance. Great responsibilities devolved upon world organizations under the United Nations Development Decade. At the United Nations Conference on the Application of Science and Technology for the Benefit of the Less Developed Areas[11], the role of atomic energy had rightly been stressed. It would have to be decided how the Agency could contribute to the great work in hand and play a major role in the provision of assistance to developing countries during the Development Decade.

60. With regard to the Agency's fellowship programme, the German delegation considered that an increase in the number of Type I fellowships should be given priority over Type II fellowships. With Type II fellowships it was often difficult to strike a balance between supply and demand. With Type I fellowships, financed from the Agency's own budget, that was not the case. The Agency ought to have sufficient money at its disposal to send fellows from the less-developed countries to the centres best suited for their training.

61. The developing countries were often short of technicians. Co-operation based on "pairing off", as it were, centres in advanced countries with corresponding centres in developing ones could be useful. The nuclear and research centres of advanced countries could accept personnel for training. Also, experts from existing centres could help in the construction and organization of new ones. Such assistance, given over a period of years, could do much to pave the way for modern technology in the developing countries.

62. Regarding the programme for 1964, it was to be hoped that the third Geneva conference, which would deal with the most important aspects of the peaceful uses of atomic energy, would constitute one of its highlights.

63. The German delegation hoped that greater harmony than in the past could be established between the Agency's programmes and those of the United Nations specialized agencies. The Secretariat should continue to devote its attention to that matter and should, if necessary, make proposals for a clear assignment of responsibilities.

64. In connection with the important question of financing the Agency's activities, the German delegation wished to restate the view it had already expressed at the sixth regular session, namely that the establishment of a single budget, financed from assessed contributions, would be the best solution.

11/ Held at Geneva from 4 to 20 February 1963.

His delegation certainly shared the often voiced opinion that the success of a scientific and technical organization did not merely depend on a large budget, and that good work could be done even with relatively small financial resources provided operations were well organized and based on proper plans. Nevertheless, it believed that the implementation of a long-term programme was possible only if an income of a definite amount could be guaranteed. The German delegation hoped the General Conference would take a right decision in that connection. The resolution adopted by the Board in June 1963, providing for certain activities to be financed in future from the Regular Budget, seemed an acceptable solution.

65. In line with the views he had just described, Germany had so far contributed to the Operational Budget the same percentage as it had to the Regular Budget. It would do the same for 1964. In addition, the Federal Government wished to make a special contribution to demonstrate its confidence in the future work of the Seibersdorf Laboratory: Germany intended to give a complete laboratory installation, representing a value of $35 000, for fine structure and spectrum analyses. It was convinced that the Agency's Laboratory would perform very useful work in calibration and in the training of specialists.

66. Finally, he expressed satisfaction that the Agency's programme was not static, but continuously developing. Generally, good programmes automatically resulted in improved financial circumstances. The Agency could make continued progress if the Secretariat, under the firm control of the Director General, continued to work with confidence and enthusiasm.

67. Mr. PASECHNIK (Ukrainian Soviet Socialist Republic) welcomed on behalf of his delegation the four new Members of the Agency - Nigeria, Gabon, Ivory Coast and Cameroun.

68. The seventh regular session was taking place at a time when mankind found itself at an extremely promising yet crucial stage of its history.

69. After many years of world-wide popular struggle for cessation of nuclear tests, the Governments of the Soviet Union, the United States of America and the United Kingdom had finally signed the Moscow treaty banning nuclear tests in the atmosphere, in outer space and under water.

70. The Ukrainian people, like all the peoples of the Soviet Union, warmly supported and approved the agreement which had been reached, and rightly

considered it to be a document expressive of the best interests of humanity, and one which constituted a first step towards solving fundamental international problems, including the most important one of all - the problem of complete and general disarmament.

71. The Moscow treaty showed that with good will and effort on the part of the States concerned, international problems could be solved in a manner acceptable to all sides.

72. Nevertheless, it must be remembered that a partial ban on nuclear testing did not mean that the arms race was ended. It could not therefore do away with the danger of war by itself. The arms race must stop and disarmament begin before the menace of war could be eliminated and States and peoples alike freed of the burden of military expenditure.

73. What was essential at present was to continue to combat the menace of war and to go on straining every nerve to relax international tension and achieve lasting peace throughout the world. The peoples of the entire world urgently demanded that a solution be found to the question of complete and general disarmament. In that connection the Director General's communication on the possible effects of an agreement on general and complete disarmament on nuclear energy development[12/] proved what the Agency could do to solve the problem. The Agency had done very little in that direction, however, as was evident from the extremely sketchy and incomplete nature of the report in question. It should continue to study the economic and social consequences of banning nuclear weapons and achieving complete disarmament. The Director General, together with the Board, should be instructed to carry out a comprehensive study of the economic and social consequences of all aspects of disarmament, including the effect of the great quantities of nuclear materials, productive resources and countless scientists and specialists that would thereby be released for work on the peaceful uses of atomic energy. To ensure implementation of the Conference's instructions, a report giving a systematic account of what had been done should be submitted at the next regular session.

74. The Ukrainian delegation warmly supported the draft resolution jointly submitted by the Union of Soviet Socialist Republics, the United Kingdom of

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12/ The communication is reproduced in United Nations document E/3736/Add.3, part I.

Great Britain and Northern Ireland and the United States of America, under the heading "Action pursuant to Resolution 982 (XXXVI) of the Economic and Social Council of the United Nations".[13/]

75. There were two fundamental problems regarding the Agency's activity upon which his delegation would like to dwell. The first was the need to promote international co-operation in the peaceful uses of atomic energy.

76. Important changes had taken place in nuclear science and technology over the preceding five years. Many countries were beginning to use atomic energy for peaceful purposes, and the Agency had a great part to play in that connection.

77. It was apparent from the report of the Board of Governors covering the period 1 July 1962 - 30 June 1963 that the Agency had done a certain amount of useful work during that time, especially in training personnel, providing equipment and experts for countries in receipt of technical assistance, organizing scientific meetings and publishing reviews and other literature. The work done on long-term planning was also deserving of appreciation.

78. It was the view of his delegation, however, that the results, and often even the character, of the Agency's activity in recent years were still remote from the functions and objectives laid down by the Statute. The fundamental defects in the Agency's work were not the result of any real difficulties but were due to the fact that a number of Western countries were trying to drive the Agency along the wrong path.

79. Instead of promoting the practical side of the Agency's work, and directing its activity towards peaceful employment of the enormous natural forces locked up in the atom, they were obliging it to undertake a review of the basic provisions in its Statute.

80. A recommendation had been submitted by the Board to the General Conference concerning an amendment to Article XIV of the Statute, which provided that technical assistance should be financed out of the Regular Budget, thus changing voluntary into assessed contributions.

81. The Ukrainian delegation vigorously opposed adoption of the proposed amendment, since it was and always had been its view that as far as the Agency

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13/ GC(VII)/250.

was concerned, the only correct principle in awarding technical assistance was the principle of voluntary contributions. The socialist countries' proposal, concerning a programme of assistance to developing countries, submitted to the sixth regular session of the General Conference[14], was in accordance with that principle.

82. Were the proposed amendment to be adopted, technical assistance, in the last analysis, would not increase but diminish, because in doing away with voluntary contributions the Agency would be doing away with the basis of its entire technical assistance programme. The initiative of Member States capable and desirous of providing assistance in kind, on a voluntary basis, would be stifled. Were the amendment to be adopted, the framework of technical assistance would be limited to a few specified forms, such as the provision of non-capital equipment, fellowships, experts and so on.

83. Again, the proposed amendment would inevitably undermine the very basis of all possibilities for co-operative action in the granting of technical assistance. The financial obligations of Member States would increase sharply, whilst no limit would be set to the Agency's budget.

84. The voluntary principle was one generally accepted in the United Nations and other international organizations as far as the provision of assistance was concerned. There were no grounds whatsoever for its revision. As was stated in Article III.B.1 of the Statute, the Agency should "conduct its activities in accordance with the purposes and principles of the United Nations to promote peace and international co-operation".

85. He expressed the hope that the majority of delegations would not set out to revise the Statute. His delegation would vote against the amendment.

86. Another factor which scarcely promoted co-operation within the Agency was the adoption by the Board of a decision extending the procedures followed under the Expanded Programme of Technical Assistance to the award of Type I fellowships. By that decision, 25 Member States, including the Ukrainian Soviet Socialist Republic, would be deprived of the right to receive Type I fellowships, although neither the Agency's Statute nor any other of its rules or regulations made any

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14/ GC(VI)/COM.1/67/Rev.1.

provision for such limitation on the award of fellowships to any country. The Board's decision thus constituted open discrimination against 25 countries, almost one third of the Agency's Member States.

87. The Ukrainian Soviet Socialist Republic had extensive facilities for training personnel in all branches of science, including the peaceful uses of atomic energy. Furthermore, highly qualified specialists were being trained for many countries abroad. Nevertheless his delegation considered that the award of fellowships by the Agency was an important form of international co-operation and of scientific and technical contact within the Agency. It was therefore unable to approve the discriminatory decision reached by the Board, which was tantamount to undermining co-operation within the Agency.

88. Another problem was the extension of assistance to the developing countries, which had to undertake atomic energy development as soon as possible, and therefore required the necessary scientific basis.

89. The delegations of the socialist countries had introduced at the sixth regular session of the General Conference proposals for a technical assistance programme to developing countries, which provided for the establishment of six radiological centres and six physics laboratories. Three hundred fellowships were also to be provided. He appealed to the advanced countries to provide equipment, apparatus and fellowships, or financial resources, in view of the fact that one third of the scheme, to the value of $700 000, was being guaranteed by the socialist countries.

90. The Ukrainian Soviet Socialist Republic was prepared to take a very active part in carrying out that programme, in the light of its own experience in the peaceful uses of atomic energy. The Soviet Ukraine was a Republic with an advanced industry and a highly developed agriculture, and was exceptionally rich in the fossil fuels - coal, oil and natural gas. The construction of atomic power stations there was therefore a matter for the more distant future. Nevertheless Ukrainian scientists were taking a direct part in working on nuclear engineering problems and Ukrainian factories were manufacturing apparatus and equipment for power stations under construction in other parts of the Soviet Union, as part of the general plan for developing nuclear power. And the labour and intelligence of all the Soviet peoples, including the Ukrainian,

had gone into the ice-breaker Lenin and into the space-ships carrying out flights in outer space.

91. Great importance was attached in the Ukraine to promoting research in fundamental nuclear physics as the basis of nuclear technology. It would be glad to share the results of its scientific research work and even its scientific ideas, which, as was well known, were the most valuable fruits of the human mind. At the first and second Geneva conferences on the peaceful uses of atomic energy, the Ukraine had supplied data on the interaction of fast neutrons with the atomic nuclei of construction materials. At conferences at Amsterdam, Paris, Kingston, Padua and Cracow, it had supplied information on nuclear reactions; at Salzburg, details of thermonuclear reactions; at the Rochester Conferences at Kiev, Geneva and Dubna, information on the physics of elementary particle acceleration; and at Prague, data on the operation of experimental reactors. He hoped that the third Geneva conference too would include a Ukrainian contribution dealing with new research work.

92. A great deal of experience had been gained in the Ukraine in the employment of radioisotopes and radiation in the national economy. The use of radioisotopes as tracers, for instance, had made it possible to obtain a quantity of valuable scientific data, to develop new technological processes in industry and to study the most intimate aspects of the physiological and pathological processes taking place in living organisms.

93. It had been possible, for instance, in the metallurgical factories of the Don basin, to study smelting and slag-formation processes by means of calcium-45 and phosphorus-32 and to achieve a reduction in smelting time, an improvement in the stability of bottoms and roofs of furnaces, and a reduction in the hot standby time of open-hearth furnaces. Millions of roubles had been saved simply by introducing radiation automation and control devices.

94. Using radioisotopes, Ukrainian agrobiologists had succeeded in investigating the most effective methods of applying phosphate fertilizer and found the key to increased yields, as well as discovering new plant metabolism and fertilization mechanisms.

95. Radioisotopes and radiation had found wide application in the fight against disease, especially in the diagnosis and treatment of malignant diseases. The

Ukraine made no secret of its efforts in the peaceful use of atomic energy, and was assisting the developing countries on a bilateral basis, as well as through international organizations, and at the same time carrying out scientific and technical exchange with many other countries throughout the world.

96. A group of Ukrainian scientists, for instance, had been working for over two years in Cairo assisting scientists of the United Arab Republic to set up a nuclear centre.

97. Ukrainian scientists were taking part in the design, installation and repair of nuclear plant and physics equipment, as well as in training personnel and drawing up and conducting scientific programmes with United Arab Republic scientists. In less than two years the Cairo centre, with the participation of Ukrainian scientists, had completed eight experimental investigations, currently reported in "Nuclear Physics".

98. Ukrainian scientists were in close touch with scientists in Poland, Hungary, Czechoslovakia, the German Democratic Republic and other countries. Direct scientific contacts and exchange of specialists were taking place between the French Atomic Centre at Orsay and the Institute of Physics of the Soviet Academy of Sciences at Kiev. Contacts were also being established between Ukrainian and United Kingdom laboratories.

99. Ukrainian scientists had been glad to welcome the Director General of the Agency, Mr. Eklund. They hoped that his visit would serve to encourage further useful contacts.

100. In conclusion, he hoped that the Agency would worthily carry out its high mission, and justify the hopes of the peoples of the world.

101. Mr. JÁNOSSY (Hungary) said his Government would always be on the side of those who sincerely worked for the prohibition of the use of atomic energy for military purposes, and for universal disarmament under effective international control. Hence it approved the Moscow test ban treaty. His delegation also welcomed the new Member States from Africa and wished to associate itself with the struggle of the African countries to safeguard human rights and end racial discrimination.

102. He welcomed any Agency activity that really did extend exchanges of information and assist the developing countries, and much had in fact been done through training, publications, scientific meetings and the fellowship programme. He wished to protest, however, against any attempt to introduce discrimination - such as the proposal, debated at length by the Board, which would deny fellowships to certain Member States. To say that there were not sufficient places available was a specious argument, since various countries, including Hungary, had offered fellowships which had been only partly utilized. The Agency should ensure that all such fellowships were taken up. Apart from any other consideration, they provided for exchanges between countries.

103. His delegation was opposed to the proposed amendment of Article XIV of the Statute and of the relevant provisions of the Financial Regulations. The technical assistance programme must naturally be as efficient as possible, but he did not agree that the system of voluntary contributions had failed; the existing shortcomings were due to the Agency's failure to make the best use of the funds contributed and to carry out satisfactorily the role of intermediary assigned to it under Article III of the Statute.

104. He could not agree with the United Kingdom delegate that the success of the long-term programme depended on the amendment of Article XIV. Such amendment would make others necessary and lead in fact to a general revision of the Statute. That in turn would lead to instabilities in regard to the level of the budget and leave the way open to increasing it whenever the specific interests of certain Member States so required. His Government had repeatedly indicated that it could not accept an amendment that would replace the present system of voluntary contributions by assessed contributions, and would not consider itself bound by any obligations such amendment might imply. Hungary would do its utmost to assist the developing countries, but would do so as a moral duty which it would fulfil of its own free will.

105. The Agency must not be made subservient to the political and financial interests of any State or group of States.

106. His delegation was not altogether satisfied with the Seibersdorf Laboratory, which ought to be financed in much stricter conformity with the requirements of the Statute.

107. The special missions had succeeded only in damaging the Agency's prestige and should be gradually replaced by expert groups who would operate in response to specific requests from Member States.

108. It was also regrettable that the Secretariat had not yet been able to implement the technical assistance project proposed by the socialist countries, which had been unanimously approved at the sixth regular session.

109. His delegation attached very great importance to the question of long-term planning, and supported the Director General's proposals.

110. The budget reflected the Director General's efforts to reduce expenditure on administration and stabilize the budget level, but more should be done to bring spending into line with the provisions of the Statute.

111. The Secretariat was to be complimented on the efficient way in which it had organized scientific meetings and produced various Agency publications. He welcomed improved Hungarian relations with the Agency, and especially with the Director General. Examples of successful co-operation were offered by the research agreement with the Szarvas Research Institute for Rice Cultivation, about which a short film had recently been made by Agency staff.

112. On the other hand, he had some serious criticisms to make. On certain occasions, the documentation provided by the Secretariat had not been sufficiently accurate or thorough. In June 1963, for example, the Board had had to discuss the Monaco project, but no report had been submitted about the research, now in its third year, carried out in Monaco at a cost to date of some $300 000. More efficient documentation would enable the Board to be more sure of its ground in the recommendations it made to the General Conference.

113. Hungary wished to share its research results and was offering to the developing countries free of charge the results of ten different research projects on radioisotope applications in agriculture, medicine and industry. The results were valued at some 50 000 roubles. Hungary hoped that that form of co-operation would become increasingly common, but, before it could, the Agency would have to overcome difficulties which certain countries put in its way from political motives.

114. Mr. DADZIE (Ghana) said that during the year an Atomic Energy Commission had been set up in Ghana to replace the former Atomic Energy Committee; it would be responsible for all atomic energy matters in Ghana, including operation of the research reactor soon to be constructed, and would assume liability for nuclear damage in the country.

115. Ghana had had the benefit of the advice of three experts provided through the Agency, in radiochemistry, agriculture and health physics. The expert on health physics had submitted an excellent report, as a result of which the Atomic Energy Commission, in consultation with the Department of Labour, had set up a Radiation Protection Board designed to satisfy the provisions of the relevant convention of the International Labour Organisation. The work of the other two experts had been most satisfactory. Steps were being taken to organize and equip radiobiology laboratories for research, particularly on cocoa, the main product of Ghana's economy; the help of the Agency would be required in obtaining the necessary equipment.

116. Two fellowships for Ghanaians had been provided by the Agency and he wished to record his country's gratitude for the training facilities provided by a number of Member States to developing countries. For the coming year, it had asked for experts in the use of isotopes in hydrology and medicine. The stage had been reached in Ghana where training in atomic energy administration was needed, and the time had come when facilities should be provided for attaching personnel from developing countries to the Secretariat for training and experience. He accordingly welcomed the Director General's statement on that point.

117. Ghana's research reactor project was proceeding according to schedule and the reactor should be in operation in eighteen months' time. His country would welcome co-operation in atomic energy matters with neighbouring African States and was particularly glad that Nigeria, the Ivory Coast and Gabon had been admitted to membership.

118. Maintaining the position taken by Ghana in the Board of Governors, his delegation would give full support to the draft resolutions on long-term planning and on the introduction of biennial programming[15].

15/ GC(VII)/238.

119. The establishment of an International Centre for Theoretical Physics on the lines recommended by the Board would contribute greatly to scientific advancement in the developing countries; his delegation accordingly supported the project, which would help to reduce teaching difficulties in those countries. It was to be hoped, however, that the establishment of the Centre would not affect the award of fellowships for study in more advanced countries. His delegation agreed that the Centre should not remain at Trieste, and was in favour of moving it, after the initial period, to an appropriate developing country. He warmly acknowledged the generous help of the Italian authorities in the matter.

120. After careful consideration, his delegation had come to the conclusion that the question of extending the Agency's safeguards system to large reactor facilities had strong political overtones and hence required special treatment. He would have preferred it to be referred back to the working group for further study, but would not oppose the draft resolution put forward by the Board if it came up for adoption at the current session.

121. Although it supported the principle of inviting specific international organizations to be represented at sessions of the General Conference, his delegation was opposed to inviting any organization having military interests, since the aims and purposes of such a body would clearly be contrary to those of the Agency.

122. Ghana regarded the co-operation established between the Agency and the United Nations and its specialized agencies as being of great significance and hoped that far-reaching developments would follow from that co-operation during the United Nations Development Decade.

123. The setting-up of a Technical Assistance Department in the Secretariat was a welcome proposal; such a department could render valuable services to the developing countries by being able to respond to their needs quickly.

124. Arrangements should be made to hold Agency seminars in developing countries, choosing places that would make it easy for neighbouring countries to participate.

125. His delegation proposed, for the Agency's consideration, that a regional centre be set up in Ghana, to serve all West African States having common problems and interests.

126. In common with other peace-loving nations, Ghana had welcomed and signed the partial nuclear test ban treaty. It hoped that the treaty would be followed by further progress and that a total test ban would be achieved in the near future. It was, however, regrettable that France, in defiance of the treaty and of United Nations resolutions, was still preparing for atomic tests in the Sahara. Ghana joined the other African countries in protesting in the strongest possible terms against such wanton disregard of humanity's call for reason.

127. His delegation also vehemently protested against the continued presence at the Conference of delegations representing the Republic of South Africa and Portugal, whose policies of apartheid and discrimination were condemned by all right-thinking nations of the world. By maintaining those inhuman policies, South Africa and Portugal had shown themselves unfit for the responsibility of pursuing the interests of mankind in any sphere, including the peaceful uses of atomic energy. The South African delegation could not honestly claim that its country was able to co-operate with all other Member States while its doors were closed to all other Africans.

128. Much had been said about the need to draw a distinction between politics and science, but that argument was a woefully weak one. In common with all other Member States, the African countries had become Members of the Agency through an act of their Governments, which were the political entities, and their representatives at the Conference could not be expected, in seeking the advancement of science, to ignore the very basis of the Agency's authority. Every delegation was bound to uphold the policies of the country it represented and Ghana would certainly do so wherever and for whatever purpose nations were gathered together. Science could certainly not be divorced from politics, for the object of scientific development was to benefit the peoples of the world, and that object was itself a political one.

129. So long as Ghana remained a Member of the Agency, its delegation would continue to object to the membership of any country which practised policies inimical to the very existence of mankind, and it would be satisfied with nothing less than the permanent withdrawal from the Agency of the delegations of South Africa and Portugal. Meanwhile Ghana would take whatever steps were open to it to express its opposition to apartheid and to any other form of racial discrimination; compromise on that issue it could not and would not accept.

The meeting rose at 1.10 p.m.