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RECORD OF THE ONE HUNDRED AND FORTY-FIFTH PLENARY MEETING

Held at the Neue Hofburg, Vienna, on Wednesday, 22 September 1971, at 3.15 p.m.

President: Mr. OTERO NAVASCUES (Spain)

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** GC(XV)/469.

The composition of delegations attending the session is given in document GC(XV)/INF/133/Rev. 2.

THE RECORD

GENERAL DEBATE AND REPORT OF THE BOARD OF GOVERNORS FOR 1970-71 (GC(XV)/455, 466) (continued)

1. Mr. VASSILEV (Bulgaria) said that for the past 15 years the Agency had been working for the development and use of atomic energy for the welfare of mankind. The Agency deserved universal recognition as an organization which was truly competent in matters relating to the peaceful uses of atomic energy. It had demonstrated its ability to solve complex and difficult problems by adopting solutions which were acceptable to all.

2. However, he wished to point out that the Agency would gain greatly in universality if it were to do everything necessary to bring about the admission of all States which desired to join and which met its requirements. In particular, he had in mind the admission of the German Democratic Republic, whose scientific and technological development, particularly in the peaceful uses of atomic energy, was completely consistent with the goals pursued by the Agency. Moreover, the German Democratic Republic was an equal party to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) [1] and as early as in February 1971 it had indicated to the Agency that it was ready to start negotiations regarding the application of the safeguards provided for in that Treaty. The admission of the German Democratic Republic to membership of the Agency would be a genuine reflection of the political situation in Europe and in the world.

3. The past year had been characterized by the efforts of the Agency to carry out within the appointed time the tasks imposed upon it by NPT. Its efforts in that direction had met with success and one basic document - a model agreement between the Agency and non-nuclear-weapon States party to NPT - had already been submitted to the States concerned. The People's Republic of Bulgaria, which had been one of the first signatories of NPT, was doing everything in its power to place its nuclear activities under Agency safeguards within the time limit imposed by the Treaty. His delegation expressed the hope that other European States and States in other continents would lose no time in confirming their signature through ratification of NPT. Such action would represent a true contribution to the efforts of nations to consolidate peace in Europe and the world.

4. The Bulgarian delegation wished to take the present opportunity to thank the members of the Board's safeguards committee for their efforts in drafting its final document. By overcoming disagreements in a spirit of realistic co-operation, the committee had succeeded in producing a document acceptable to all. The committee's work could also serve as a model for other collective bodies trying to find solutions to disarmament problems.

5. His delegation had studied with interest the various aspects of the Agency's activity as reflected in the Board's report for the past year [2] and was convinced that the Agency was making consistent efforts to promote the use of atomic energy for the good of mankind.

6. The main activity of the Agency was, and would continue to be in the years ahead, the provision of technical assistance to developing countries. He wished to emphasize the importance which his Government attributed to the Agency's activity in technical assistance matters. Its opinion of the manner in which the Agency made use of the contributions to the General Fund was, on the whole, favourable. However, the Bulgarian Government could not agree with the provision of technical assistance to countries for which such aid indirectly facilitated their engaging in non-peaceful activities.

7. More than half of the funds allocated for technical assistance were used for experts. Although it did not seek to minimize the services performed by experts, his delegation raised the question whether the Agency should not consider some means of better equalizing the amounts spent on experts and those available for the material requirements of a project.

8. It was to be noted that during the past two years technical assistance requests related mainly to agricultural matters, and in that domain the irradiation of foodstuffs was assuming an increasingly important position. In that connection, agricultural science in Bulgaria had achieved definite advances. In the case of certain crops, the use of radiation had resulted in highly productive forms with an increased - from 3 to 6% - protein content. Definitely favourable results had also been achieved in the programme of seed irradiation for the purpose of stimulating plant growth. Bulgaria was also taking part in the Agency's seed stimulation programme and was doing everything in its power to ensure the successful completion of the project.

9. As an important producer of agricultural products, his country had an interest in the implementation of the Agency's programme for the irradiation of foodstuffs and it was ready to participate in its implementation to the best of its abilities.

10. He also wished to mention the very useful activity of the Agency in information matters, and especially the establishment and operation of the International Nuclear Information System (INIS). For the past few months his country had been making its contribution to INIS output, submitting appropriate information in the form of worksheets. It would be useful if countries which for some reason had not sent their representatives to the

[1] Reproduced in document INFCIRC/140.

[2] GC(XV)/455.

INIS training seminars organized by the Agency could be afforded an opportunity to obtain practical training by being able to send them to work on INIS for a period of three or four weeks.

11. On the subject of INIS, his delegation did not consider it appropriate to include in the agenda of the forthcoming meeting of the INIS Advisory Committee the question of supplying INIS output to private undertakings. Such a step could only do harm to the system and would be extremely unfavourable to the developing countries from the financial point of view.

12. Another item on the agenda for the Conference's current session was the question of financing the construction of nuclear reactors. In his opinion, power was the basic problem in the further development of any State, and hence the important and significant role that could be played by nuclear reactors as sources of electric power. However, the date when reactor construction could be started, the type of reactor to be built and its capacity, were matters which could only be determined in the light of a number of factors, e.g. the size of the conventional energy sources already available, the energy balance, general economic conditions and so on.

13. His country, which was successfully carrying out socialist construction, was experiencing a constant need for new power capacity. At the end of 1944 the total capacity of electric power stations in Bulgaria had amounted to 103 MW(e) or a total of 45 kWh per head of population; at the end of 1970 their total capacity had grown to 4073 MW(e), or 2212 kWh. The forecast for 1980 was 6400 kWh and for the year 2000, 18 000 kWh per head of population. Such a rapid growth in the need for electric power had made necessary a careful study of the country's resources of conventional raw materials (coal, gas, oil) and also of the use of water resources. The study had led to the adoption of a decision to proceed immediately with the construction of the country's first nuclear power station, "Kozlodui", a water-moderated, water-cooled power reactor which would have an initial capacity of 880 MW(e), and later of 1760 MW(e). Plans for future development provided for the construction of additional large-scale nuclear power stations.

14. Construction of the nuclear station was being carried out under a bilateral agreement with the Soviet Union: the first of the two reactors was expected to go into operation in 1974 and the second in 1975. The reactor was being built by Bulgarian specialists who were receiving advice from Soviet experts.

15. The bulk of the equipment would be supplied by the Soviet Union, and part of the auxiliary equipment was to be constructed in Bulgaria.

16. In connection with the steadily increasing construction of nuclear power stations throughout the world, he believed that the Agency should issue a special brochure or take some other step which would help dissipate unwarranted fears concerning the hazards of radioactive contamination of the environment.

17. His delegation felt concern over the steadily increasing size of the budget. It was foreseen that expenditures would increase by 19% in 1972, a rate which was too high to be acceptable, the more so since two thirds of it would be going to meet increased salary costs. Such an increase in salaries seemed premature, since changes were being planned in the system of staff emoluments applied by organizations in the United Nations family.

18. In conclusion he wished to state that the Bulgarian Government would continue supporting the Agency's activities in the direction of wider use of nuclear energy for peaceful purposes.

19. Mr. PEDINI (Italy) said that the fifteenth regular session of the General Conference clearly reflected the fact that the objectives laid down in the Agency's Statute were gaining ever greater topical significance and represented the fundamental aims which all countries sought to attain in order to deal with the problems typical of modern society. Those objectives summed up the requirements of international collaboration in the peaceful uses of the atom, particularly in view of the progressive application of nuclear technology in the industrial and economic sectors of Member States and the growing need for power.

20. The steps taken by the Agency during the past year therefore deserved the greatest attention in view of their far-reaching implications.

21. The Fourth International Conference on the Peaceful Uses of Atomic Energy (Fourth Geneva Conference) had recently confirmed the growing role that the atom was called upon to play at the present time in power production. The rising cost of conventional fuel and the difficulties faced in ensuring normal supplies on a long-term basis, chiefly because of the increased power demand, were a clear indication that nuclear power offered the greatest advantages and gave the greatest promise in that sector of the economy.

22. In Italy, the generation of electricity of nuclear origin had for some time been at the stage of industrial exploitation. The three nuclear power plants currently in service - Latina, Garigliano and Trino Vercellese (with a total capacity of 622 MW(e)) - had generated a total of 22 441 million kWh between the time they had been put into operation and 30 April 1971. That figure put Italy fourth on the world list of countries producing nuclear electric power. The fourth power station, with an 800-MW(e) capacity, had already been built by Ente Nazionale per l'Energia Elettrica: it was to be put into service in 1975 and would double the present output of electricity of nuclear origin.

23. The Agency's activities during the past year, particularly those related to the environment, were of very special interest in that the disadvantages of nuclear power in terms of

environmental pollution had proved to be less than those of other technologies and industrial processes. Nevertheless, the public still showed undue concern for the hazards inherent in nuclear techniques. That was the reason why the Agency's activities, both in regard to public information and the regulation and control of radioactive material, were making a very valuable contribution to the increasing use of nuclear technology.

24. Italy had always shown the greatest interest in the Agency's work in the areas of food production, agriculture and radioactivity, to which it had contributed for several years in the form of numerous cost-free research contracts with the national laboratories concerned. A case in point was participation by the Italian Nuclear Energy Commission (CNEN) in the programme of tests on the wholesomeness of irradiated foodstuffs, jointly conducted by the Agency and the European Nuclear Energy Agency (ENEA). Italy intended to continue with and further intensify collaboration of that kind so that the Agency's programmes in key areas could be successfully put into operation.

25. The Italian Government was gratified to see the progress made by INIS during its second year of activity and the steadily increasing collaboration between the Agency and the main international bodies of relevance, namely, the Food and Agriculture Organization of the United Nations (FAO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the European Atomic Energy Community (EURATOM) and the European Nuclear Energy Agency.

26. As part of the collaboration between Italy and the Agency, CNEN would place at the Agency's disposal, for 1972, 20 fellowships, corresponding to 160 months of training, to be used for the benefit of students and experts from the developing countries.

27. The Italian Government had, furthermore, followed with great interest the activities of the International Centre for Theoretical Physics at Trieste. The Centre had operated on a very satisfactory basis thanks to the considerable investments and the contributions made by Italy, both at national and regional level, as well as the support provided by the Agency and UNESCO. By its very nature the Centre was to be numbered among the great research establishments of the present day; and, at the same time, it could meet the teaching requirements of young specialists from the developing countries.

28. Unanimous international recognition of the Centre was evidence that it had not only been successful, but was also regarded as an example that should be followed.

29. During the previous session of the Conference it had proved possible to meet the long-held wishes of an ever-growing number of Member States for amendment of Article VI of the Statute; that amendment [3] had been adopted by a large majority and would ensure more representative participation by the developing Members in the Agency's executive body - the Board of Governors, and a more appropriate status for the Members further advanced in the utilization of nuclear energy.

30. The fifteenth session provided an opportunity for stressing once again the importance of that amendment, which could indeed by expected to provide a new impetus for the Agency's activities associated with its added responsibilities resulting from the coming into force of NPT. His Government was convinced that the session would help to speed up the process of ratification of the amendment.

31. As part of the new responsibilities incumbent upon the Agency through the entry into force of NPT, the Board's safeguards committee had drafted a document that would serve as a basis for agreements between the Agency and Member States, or groups of States, pursuant to Article III of NPT.

32. The Italian Government had actively assisted with the work of the safeguards committee and was gratified by the results achieved; he nevertheless wished to restate the reservations which his delegation had expressed there and in the Board on the matter of the latter's powers in settling disputes between a signatory State and the Agency over the implementation and interpretation of safeguards agreements. The Board's powers, though necessary, should not be a substitute for an impartial tribunal in settling such differences.

33. Taken as a whole, the model agreement would still be of benefit for the negotiations in the not-too-distant future for the conclusion of a verification agreement between EURATOM and the Agency. In that connection he wished to state on behalf of the other Member States of EURATOM that the Council of Ministers of the European Communities, which had met in Brussels on 20 September 1971, had unanimously given EURATOM a mandate to enter into negotiations with the Agency for the conclusion of a verification agreement with EURATOM. There was no doubt that such negotiations would constitute an important step towards increasing the number of States party to NPT, which had to be as universal as possible if it was to attain its aim.

34. He therefore hoped that the future activities of the Agency, to which his country wished to make an active contribution, would bring about mutual understanding and co-operation between countries in the vital field of the peaceful uses of nuclear energy.

35. Mr. HAUNSCHILD (Federal Republic of Germany) said that the main achievement of the Agency since the Conference's preceding session was the completion of the work of the Board's safeguards committee. It had prepared important procedures which would enable the Agency to carry out verifications in the interest of non-proliferation of nuclear weapons without

[3] Set forth in Resolution GC(XIV)/RES/272.

unduly interfering with nuclear research and industry and without placing excessive financial burdens on Governments. Expressing the hope that the practical implementation of those procedures would prove to be a success, he stressed the need to continue the development by the Agency of safeguards techniques. Progress in that field would not only contribute to the efficiency of safeguards measures but would also reduce costs. His Government was willing to continue its active participation in the further development of those techniques.

36. Indicating his Government's approval of the financial arrangements worked out by the safeguards committee which were now before the General Conference, he pointed out that his Government had supported them at the safeguards committee mainly in order to enable the latter to complete its work successfully. The solution reached was not an ideal one, even though it was agreed that those arrangements could not be considered as a precedent for any other financial arrangement within or outside the Agency.

37. His Government welcomed the fact that the committee had also taken note of the offers made by the United Kingdom and the United States voluntarily to accept safeguards concerning their civilian nuclear energy activities and that the Board had requested the Director General to enter into consultations on the content of safeguards agreements with those two Governments. His Government attached great importance, for ensuring equal opportunities in the economic and scientific fields, to the fulfilment of the assurance given by the United States and the United Kingdom regarding the application of safeguards to their peaceful nuclear activities. He expressed the hope that other nuclear-weapon States would give similar assurances. The successful outcome of the Director General's consultations with those countries would certainly facilitate the ratification of NPT.

38. His Government had contributed to an early start of negotiations between EURATOM and the Agency, which EURATOM had now been authorized to conduct. He hoped that would encourage other States to do so at an early date.

39. As in the past years, he attached great importance to the Agency's technical assistance programme, comparable with that attached to safeguards. The strategy for the Second Development Decade decided upon by the United Nations the preceding year and the new system of operation of the United Nations Development Programme (UNDP), according to which major decisions on priority measures were to be taken by the countries concerned, would have repercussions on the Agency's activities. The Federal Republic of Germany had worked out a concept for development aid in the Second Development Decade comprising both bilateral assistance and co-operation within multilateral organizations.

40. The Agency had gained considerable experience in the supply of technical know-how and material assistance, despite its limited funds. His Government was, therefore, in favour of increasing the General Fund from $2.5 million to $3 million [4] and willing to raise its contribution to it, although it considered that the increase of 17.9% in the assessment of contributions to the Regular Budget [5] was unusually high.

41. It was also increasing its non-financial contributions to the Agency. In the preceding year it had accepted 44 Agency fellows and the services of 13 German experts had been made available to the Agency for assignment in Member States. In 1972, too, it would offer an initially unlimited number of fellowships in all sectors of nuclear research and development. In addition, numerous German experts would again be available for assignment. A training reactor given by the Federal Republic of Germany had been installed some weeks ago at the University of Rosario in Argentina with the Agency's assistance. Mexico would receive a reactor of the same type the following year. In 1972, a gamma irradiation plant for use in a comprehensive programme to control harmful insects would be made available to the atomic energy authority of Peru.

42. Mention should also be made of the joint programme of the Agency, FAO and the Federal Republic of Germany for co-ordinated research to improve the protein content and quality of crops by nuclear techniques. In May 1971, an agreement had been concluded between the Agency and the Gesellschaft für Strahlen- und Umweltforschung (Radiation and Environmental Research Corporation) at Munich, under which grants of more than $800 000 would be given over a period of five years to be used for research activities in a large number of institutes, particularly in several Asian countries. In addition to that sum, his Government had made available to the Agency, for that programme, equipment worth more than $50 000 which was being used in the Agency's Laboratory at Seibersdorf. Lastly, his Government contributed to the international food irradiation project carried out by the Agency, FAO and ENEA.

43. Co-operation agreements between laboratories in less advanced countries and those in industrialized ones constituted another method of promoting the development of nuclear energy. He was pleased to note that the Agency had increased its efforts to bring about such "sister laboratory arrangements". Mention should be made of the proposed co-operation of Heidelberg University with the Teheran Centre for Research and the Ile-Ife University in Nigeria in the use of isotopes in hydrology and of the cost-free participation of about fifteen German institutes in co-ordinated research programmes of the Agency.

44. The Agency was playing a useful role in bringing together scientists from different countries. In 1970, more than 400 German

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[4] See document GC(XV)/460, para. I.11.

[5] Ibid., para. I.7.

experts had taken part in the Agency's symposia and presented some 100 papers. Another 150 German experts had participated in panel and working group meetings. In the current year, three major scientific conferences had been held in his country under the aegis of the Agency.

45. In the Federal Republic of Germany, nuclear technology after 16 years of development and active public promotion had become a part of industrial engineering and production. In 1971, light-water reactors had enjoyed the greatest development: nuclear power stations with a total capacity of 5000 MW(e) were in operation or under construction and plants with a capacity of 5000 MW(e) had been ordered. Thus, in 1977 at least 15% of the installed electrical capacity and more than 20% of the electricity produced would be of nuclear origin.

46. The structure of industry was also changing. Now only a few large companies were engaged in the nuclear energy business. Leading European firms had recently agreed to co-operate closely in several sectors of nuclear energy.

47. The promotional activities of the Federal Government were directed mainly to the development of advanced reactors, i.e. fast breeders and high-temperature reactors, to the supply of natural uranium, the enrichment of uranium and development of the other fuel cycle services.

48. It attached particular importance to the problems of reactor safety and environmental protection and stressed the need for more intensive international co-operation in that field.

49. All development activities in his country, e.g. the breeder reactor project and the uranium centrifuge development, were integrated into a comprehensive system of international co-operation, in particular with the neighbouring European countries.

50. On the basis of the increasing experience available in his country, efforts were being made to intensify the transfer of know-how to developing countries and thus to contribute to the introduction of nuclear energy in those countries. An important part was played by the German nuclear research centres, which had international bureaux responsible for rendering assistance to other countries on a partnership basis.

51. The Fourth Geneva Conference had shown that, although important advances had been made in nuclear science and technology, those had been achieved mainly in the industrialized countries. A number of obstacles had still to be overcome before nuclear energy could be introduced in developing countries, which really needed it. The Agency was particularly suited to help in removing those obstacles, for example, in the matters of standardization of safety requirements in international bids for nuclear power plants and the introduction of standards for the fabrication of components. Those measures would facilitate international co-operation in the construction of small and medium-sized nuclear power plants and reduce their costs. So far as his country was concerned, it intended to devote a special part of the fourth German atomic energy programme, which was to begin in 1973, to the promotion of nuclear techniques of particular interest to developing countries.

52. Drawing attention to the protection of the environment, he considered that the Agency should continue actively to promote protective measures. Nuclear energy offered a safe alternative to certain non-nuclear processes of energy production which might be harmful to the environment and the public should be made aware of that fact.

53. Referring to the amendment of Article VI of the Statute, he stressed that it was a necessary measure which would enable the Agency to continue its successful work in future. He urged the Member States which had not ratified it to do so at an early date so that it could enter into force before the next session of the General Conference.

54. Mr. MOROKHOV (Union of Soviet Socialist Republics) made the following statement*:

(1) "Mr. President, distinguished delegates: allow me, Mr. President, first of all to congratulate you on your election to this high office. The Soviet delegation is confident that your work as President will contribute to the success of the fifteenth session of the General Conference of the International Atomic Energy Agency.

(2) "The Agency's General Conference is now meeting for the fifteenth time in its annual regular session. Fifteen years is a fair span in the life of any international organization, so we should now be able to see more clearly than in past years what the Agency's successes have been and what its shortcomings.

(3) "I think one can say without fear of exaggeration that the Agency has done a great deal of useful work in promoting international co-operation in the peaceful uses of atomic energy. The Agency's Statute says that it 'shall seek to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world'. This important goal should continue to be treated as paramount in the Agency's activities, indeed in any new undertaking which it pursues.

(4) "In the past few years large changes have been wrought in the life of the Agency by the new duties which it has assumed under the Treaty on the Non-Proliferation of

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* This translation of a statement made in Russian is reproduced verbatim at the speaker's request under Rule 92(b) of the Conference's Rules of Procedure.

Nuclear Weapons. Let me say that these new functions are perfectly in harmony with that main goal of the Agency which I have already mentioned. They are playing an ever larger role in the day-to-day work of the organization, and in point of fact they have given the Agency renewed life. The control functions which the Agency will be called upon to discharge under the Non-Proliferation Treaty have already increased its weight and authority as an international organization. In future that authority will continue to grow, will be further secured, in the measure that the control functions foreseen in the Treaty are carried out.

(5) "In our view this activity of the Agency is also perfectly in line with the main task of the modern world - the task of securing peace, guaranteeing international security and enlarging co-operation among peoples. In the peace programme recently put forward by the Twenty-Fourth Congress of the Communist Party of the Soviet Union - a programme which is being rigorously implemented by the Soviet Government - the most important place is devoted to avoiding the danger of nuclear war, to prohibiting and eliminating nuclear armaments; and of the many problems that exist in this regard, that of preventing the proliferation of nuclear armaments is by no means the least. In his report to the Twenty-Fourth Congress, the General Secretary of the Central Committee of the Soviet Communist Party, L. I. Brezhnev, assessed in favourable terms the Non-Proliferation Treaty which entered into force in 1970, emphasizing that although not all States had yet become party to the Treaty, it nevertheless, to some extent, diminished the danger of nuclear war.

(6) "We note with satisfaction that our aim of strengthening the provisions of this Treaty and putting them into effect as soon as possible is an aim shared in the IAEA; that much is apparent at this session of the General Conference. It is surely no accident that both the statement of the Director General and those of delegations have raised questions related to the Non-Proliferation Treaty in one form or another.

(7) "We also fully share the positive assessment of the work done by the Board and the Safeguards Committee (1970) in this important area, an assessment which Dr. Eklund made in his statement and which is contained in the Agency's report to the United Nations General Assembly. In the year that has elapsed since the last session of the General Conference, we have seen the completion of a draft model agreement on the safeguards to be applied pursuant to Article III of the Non-Proliferation Treaty.

(8) "The Soviet delegation would like to emphasize once more that the draft model agreement evolved by the safeguards committee and approved by the Board does in fact answer the requirements of the Non-Proliferation Treaty and the tasks it implies; it has laid the essential groundwork for negotiations between States party to the Treaty and the Agency for the conclusion of safeguards agreements.

(9) "From the Director General's statement we gather that a substantial number of States party to the Treaty have already declared their readiness to begin negotiations with the Agency for the conclusion of safeguards agreements, and that some have, in fact, already begun such negotiations. We note with satisfaction that a number of countries, such as Finland, Austria and Uruguay, have already completed their negotiations and that the Board of Governors has approved the resulting safeguards agreements with those countries. Some socialist countries party to the Treaty, too, are completing their negotiations with the Agency: Poland is a case in point.

(10) "At the same time the Soviet delegation draws attention to the vital importance of concluding the safeguards agreements required by the Treaty as soon as possible. We all know that Article III of the Treaty lays down specific deadlines for the conduct of negotiations and the entry into force of agreements. According to the provisions of that Article, these safeguards agreements must enter into force not later than 1 March 1972 in the case of a large group of States party to the Treaty. We feel that every effort should now be directed towards completing the requisite negotiations between the Agency and States party to the Treaty within the specified time, so that the provisions of Article III of the Treaty will be fulfilled.

(11) "The Treaty on the Non-Proliferation of Nuclear Weapons serves the interests of all countries in the world, large and small, nuclear and non-nuclear alike. No wonder, therefore, that the twenty-second session of the United Nations General Assembly should have welcomed the Treaty and urged that the largest possible number of States adhere to it. Now the Treaty has already entered into force, and the complex safeguards problems which it raised are being successfully dealt with; so an appropriate moment for enlarging the circle of signatory States would seem to have come. In this connection we recall a statement made by the distinguished representative of Italy at the General Conference some time ago, that the Members of the European Atomic Energy Community (EURATOM) were prepared to begin negotiations with the IAEA concerning matters of safeguards under the Non-Proliferation Treaty. We would hope that, having taken that step, the countries in question will now ratify the Treaty, and we

also hope that other countries which, for one reason or another, have not yet signed the Treaty, or have not yet confirmed their signature through ratification, will take the final step and become parties to the Treaty. This would undoubtedly serve not only their own interests but also the cause of peace.

(12) "It would, in our opinion, be only right if the General Conference, the most representative and most responsible body associated with the IAEA, were to make its own contribution to the solution of these important problems: it could do that by recognizing the Agency's useful work in the matter of NPT safeguards and by stressing the importance of fulfilling the tasks which the Treaty requires.

(13) "The adoption of a resolution along those lines by the General Conference would follow logically from the debates we have heard here in the Conference itself and from the Agency's report to the United Nations General Assembly, a report which contains significant material describing the Agency's work in this area. The taking of such a decision would also be significant in relation to discussions of the Agency's activities in the United Nations General Assembly, for it would point to the work that the Agency has done and would testify to the Agency's clear understanding of the importance of the tasks it has assumed under the Non-Proliferation Treaty.

(14) "Let me stress in this connection that the significance of the Non-Proliferation Treaty is manifold and that its positive consequences have a bearing on the most various aspects of social and scientific life. This applies first and foremost, of course, to the peaceful uses of atomic energy.

(15) "A few days ago the Fourth International Conference on the Peaceful Uses of Atomic Energy in Geneva - one of the largest international events ever held in this field - completed its work.

(16) "As A.N. Kosygin, Chairman of the USSR Council of Ministers, said in a message which he addressed to the Fourth Geneva Conference, the Soviet Union, having itself achieved great successes in the practical application of atomic energy, is working steadfastly towards a type of international co-operation in the peaceful uses of atomic energy which will satisfy in full measure the goals and principles enshrined in the Statutes of the United Nations and the International Atomic Energy Agency, as well as in the provisions of the Non-Proliferation Treaty.

(17) "The motto of the Fourth Geneva Conference, 'Benefits for mankind from the peaceful uses of atomic energy', is near to the hearts of Soviet experts in the atomic energy field, and it is moreover consonant with the goals envisaged for atomic energy in the documents presented at the Twenty-Fourth Congress of the Communist Party of the Soviet Union.

(18) "The significance of the Geneva Conference for the development of atomic science and technology throughout the world lies in the fact that virtually all problems related to the further development of the peaceful uses of atomic energy for the good of mankind were illumined there. In this connection I should like to stress the important contribution to the work of the Conference made by Soviet scientists, who presented 56 papers on topics related to nuclear power, research into new methods of converting atomic energy to electricity, radioactive waste management and protection of the environment, high-temperature plasma research, problems of fast reactor technology, the use of nuclear methods to increase food production and, finally, nuclear applications in industry and in medicine.

(19) "These papers not only summarize the results of the vast research programme in atomic science and technology carried out in the Soviet Union in recent years but also point to new and promising ways of using atomic energy for the good of mankind and consider ways and means of solving the complex scientific and technological problems to which these new techniques can give rise. Indeed, it is hard to overestimate the importance of the Fourth Geneva Conference. It enabled us to gather, generalize and make accessible for widespread use an enormous quantity of very important material, and I naturally take pleasure in mentioning the important and distinguished role which Soviet scientists played at the Conference.

(20) "As we know, the Agency was responsible for preparing and running the Fourth Geneva Conference. The Agency indeed proved itself equal to the task of arranging a large and complex international event of this kind. Most of us who are present here also took part in the Geneva Conference, and I am confident that we all agree with the high estimate of the work of the Agency's Secretariat which Academician N.N. Bogolyubov, Director of the Joint Institute for Nuclear Research at Dubna, uttered in his final remarks. In this speech, in which he summarized the results of the Conference, Academician Bogolyubov particularly stressed the good work done by the Agency's staff, and by its Director General Dr. Eklund himself, in preparing and conducting the Conference.

(21) "Distinguished delegates, the programme for the economic development of the Soviet Union adopted at the Twenty-Fourth Congress of the Communist Party of the

Soviet Union foresees a substantial improvement in the material and cultural life of the people, based on a rapid evolution of socialist production, improved efficiency, scientific and technological progress and an accelerated growth of the productivity of labour. As a result of all this, gross national income is to increase by 37-40% over the period of the Five Year Plan.

(22) "A broad development of power generation, including atomic power, is part of this programme. By 1975 the Soviet Union will have built and will be operating on its territory a series of large atomic power stations with an installed unit capacity of 1000 MW and above, and a total installed capacity of 6000-8000 MW, accounting for about 12% of all the power generating capacity installed during the five-year period.

(23) "Since the first atomic power station in the world went into operation at Obninsk, the Soviet Union has continued to design and develop large, extremely safe and economically efficient atomic power plants. The purpose of this research and development work has from the start been to prepare, on the broadest possible front, for a coherent system of atomic power stations based on thermal reactors - stations which are capable of providing electric power in the European part of the Soviet Union at a lower cost than power stations using conventional fuels.

(24) "The ample supplies of conventional fuel existing in our country (I might mention open-face mining of extremely cheap coal in Kazakhstan, the discovery of large oil and gas deposits in western Siberia, the use of massive hydro resources and so on) have enabled the Soviet Union to develop nuclear power at a moderate tempo, without indulging in wasteful investments.

(25) "The nuclear power stations I have mentioned are called 'first-phase stations' in the Soviet Union. Apart from furnishing electric power they will be called upon to provide the fuel base for our second-phase nuclear power stations. These second-phase stations will have breeding ratios adequate to provide the nuclear fuel base for future, advanced fast neutron reactors, and these in turn will be able to provide power on any scale required.

(26) "Thus the past year has been, in some senses, a rather remarkable year for nuclear industry in the Soviet Union, for it marked the transition, one might say, from a large scientific-industrial experiment in the development of promising nuclear power plant types to the actual construction of nuclear power stations on a massive scale - i.e. the creation of a fully developed nuclear power industry. Existing plans for the development of nuclear power in the Soviet Union foresee a total installed nuclear capacity of 30 000 MW(e) by 1980. Under this programme intensive construction work is going ahead on the Leningrad, Kursk, Chernobylsk, Smolensk, Western, Kola, Bilibin and Armenian nuclear power stations; and preparations are being made for the construction of a further series of new power stations. At the same time new units are being added to the Novo-Voronezh and Beloyarsk stations, which have been operating successfully for a long time.

(27) "The Soviet Union has consistently been in favour of broad international co-operation in the atomic energy field. Our co-operation with other socialist countries has developed to a substantial degree during the year that has elapsed since the last session of the General Conference. The recent twenty-fifth session of the Council for Mutual Economic Assistance (COMECON), under whose auspices the Soviet Union's co-operation with socialist countries is realized, unanimously adopted a broad composite programme aimed at further strengthening and perfecting collaboration and the development of socialist economic integration among the organization's Member States.

(28) "In the atomic energy sphere this composite programme aims at co-ordinating the efforts of socialist countries so that nuclear power can be developed through the establishment in those countries, with the Soviet Union's technical assistance, of nuclear power stations using VVER-type reactors; atomic energy is to be introduced in interested countries on an industrial scale; and the programme likewise foresees co-operation in the development and manufacture of modern installations and equipment required for nuclear power, custom-made measuring devices required for the manufacture of nuclear instruments, and so on. This composite programme opens up attractive prospects for the peaceful uses of atomic energy in States Members of COMECON.

(29) "Apart from fraternal co-operation with fellow socialist countries, the Soviet Union is engaged in broad programmes of scientific and technical co-operation with numerous other countries in areas related to the peaceful uses of atomic energy. Co-operation of this kind, both bilateral and multilateral, is also carried out to a considerable extent through the IAEA. The participation of Soviet scientists in scientific events sponsored by the Agency, the submission to the Agency of the results of scientific research carried out in the Soviet Union, the provision under the INIS programme of scientific publications on a wide range of problems associated with

the peaceful uses of atomic energy, the holding of experts' meetings, scientific study tours and the like in the USSR - all these are forms of international co-operation which the Soviet Union has used to good effect in the past year.

(30) "Appreciating the enriched uranium requirements of non-nuclear countries, and desirous of promoting the development of nuclear power in those countries, the Soviet Union declared, at an earlier session of the General Conference, its willingness to provide enrichment services for uranium belonging to non-nuclear countries.

(31) "We regard this as a particularly important contribution of our country to international co-operation in the peaceful uses of atomic energy, and we well understand the interest which many countries are showing in co-operation with the Soviet Union in this area.

(32) "The services offered by the Soviet Union in connection with uranium enrichment can provide a profitable, reliable and durable basis for atomic power in those countries which wish to avail themselves of these services.

(33) "It is understood of course that foreign uranium enriched in the Soviet Union would have to be used exclusively for peaceful purposes, under the supervision of the IAEA, as foreseen in the Non-Proliferation Treaty.

(34) "The Soviet Government has continued, furthermore, to give careful attention to the provision of technical assistance to developing countries under the Agency's programme.

(35) "The Soviet Union's voluntary contribution provided valuable goods and services for the Agency's technical assistance programme in 1971. Apart from the provision of instruments, equipment and materials for developing countries, two scientific study tours have been organized in the Soviet Union during the current year, relating to standardization in radiation dosimetry and to the applications of radiations and isotopes in agriculture. Representatives of more than 50 developing Member States of the Agency took part in these tours. Representatives of many countries are perfecting their knowledge and obtaining practical experience in scientific research centres and institutions in the Soviet Union under Type II fellowships earlier awarded by the Agency. The services provided by Soviet experts sent to developing countries under the auspices of the Agency, to assist in the adjustment and operation of equipment provided and to train local staff in its use, have grown from year to year. We would also welcome an increase in other forms of technical assistance such as short scientific visits by leading scientists and specialists from the developing countries who could familiarize themselves with the achievements of the Soviet Union in the medical, agricultural and other applications of atomic energy.

(36) "In the interests of continued international co-operation in the peaceful uses of atomic energy, the Soviet delegation is empowered to state that the Soviet voluntary contribution to the Agency's technical assistance fund for 1972 will amount to 250 000 roubles in national currency, for the provision of equipment, instruments and materials, for scientific meetings in the USSR, and for scientific study tours, seminars and courses for the benefit of representatives of developing countries.

(37) "While we are discussing the activities of the Agency, it would be wrong to pass over one particularly important matter: I have in mind the observance of the principle of universality which is enshrined in the Agency's Statute. Consistent application of this principle means that all States which share the aims of the Agency and whose policies are consistent with those aims should be able to take part in its activities with equal rights. What I have said applies in full measure to a State such as the German Democratic Republic, which has realized significant achievements in the peaceful uses of atomic energy; a State, moreover, whose actions fully satisfy the requirements which the Agency's Statute lays down for membership of the Agency. The German Democratic Republic, as we all know, was one of the first countries to sign and ratify the Treaty on the Non-Proliferation of Nuclear Weapons and to declare its intention of concluding with the Agency the safeguards agreement required by that Treaty; and, again as we all know, the German Democratic Republic is prepared in the very near future to begin negotiations with the Agency for the conclusion of such an agreement.

(38) "The importance of granting the German Democratic Republic equal rights in international organizations is receiving ever wider recognition throughout the world. In this connection I should like to draw your attention to the communiqué summarizing the results of the recent meeting between W. Brandt, Federal Chancellor of the Federal Republic of Germany, and L.I. Brezhnev, General Secretary of the Central Committee of the Communist Party of the Soviet Union: this communiqué refers among other things to the great significance which the entry of both German States into the United Nations and specialized international organizations would have, and stresses the determination of both parties to work towards that goal. There is no doubt

that if the German Democratic Republic were a Member of the Agency it could make a valuable contribution to the fulfilment of the Agency's growing obligations, to the accomplishment of its tasks and its goals.

(39) "In conclusion, distinguished delegates, I should like to express our confidence that the Agency will discharge its obligations successfully. The Agency's work is becoming ever more closely linked with the vital problems of preserving peace and security and banishing the threat of nuclear war. All this is bound to make increasing demands on the Agency. If these demands are to be met we must above all recognize the responsibility which has been vested in the Agency in the circumstances of modern international life, and fully avail ourselves of the possibilities at the organization's disposal. For its part, the Soviet Union will devote its best efforts to ensuring that the Agency's work measures up to the tasks that confront it."

55. Sir John HILL (United Kingdom) congratulated the Director General on the part played by the Agency in the Fourth Geneva Conference. All must be conscious, particularly in the current year, that such international gatherings imposed great demands on their time. Nevertheless, they helped to remind everyone of a truth that could not be over-emphasized, namely that the atom was international. The dangers of the atom spread beyond the country where atomic energy was used, and international action was needed to limit them. The same was true on the positive side. Countries used to think in terms of national self-sufficiency in the atomic field; or of having their own individual atomic programmes for prestige reasons. But there were few, and perhaps no, countries which could exploit atomic energy fully in a purely national framework.

56. It was encouraging to note that, in most parts of the world, and particularly in Western Europe, collaboration between Governments, between commissions and between industries was the order of the day. The previous year he had told the Conference of a Tripartite Agreement between the Federal Republic of Germany, the Netherlands and the United Kingdom to develop and exploit the gas centrifuge. [6] That agreement had since led to the establishment of two companies, with the participation of industrial concerns from the three countries, and the three countries were looking forward to participation of other countries in the project. Construction of two plants to enrich uranium was already in hand; tripartite confidence in the gas centrifuge process continued, and was indeed increasing.

57. Collaboration was also developing between British companies and companies in other countries in the field of reactor design and construction, and of reprocessing. The United Kingdom was happy at the prospect of deepening its collaboration with other European countries through membership of EURATOM.

58. Within the United Kingdom the commercialization of nuclear industry had passed a new milestone in the past year with the establishment of British Nuclear Fuels Limited and The Radiochemical Centre Limited. Those new concerns would continue, in an industrial company structure, to provide the reprocessing, fuel fabrication, and isotope production and marketing services formerly provided by the Atomic Energy Authority.

59. The fast reactor project continued to run according to programme, and the 250-MW prototype was expected to be on power by the end of 1972. A centre was being established at Dounreay to provide training in the operation of commercial fast reactors. In the past there had been too little real collaboration on fast reactors; but there too the picture was changing and good prospects for close industrial collaboration could be seen.

60. The United Kingdom delegation was well satisfied with the Agency's work as a whole, and with the annual report, a number of points in which called for special comment.

61. In the view of his delegation, the successful conclusion by the Board's safeguards committee of its task and the elaboration of the model safeguards agreement were truly outstanding achievements. It was gratifying to note that the spirit of compromise in the committee had been maintained and that a series of delicate political and commercial issues had been resolved with the participation of nearly 60 States. For so many States to resolve so many complex questions in so short a time was a remarkable event - a success story in international relations. The committee's work deserved respect and support.

62. His delegation noted with satisfaction that the Board had already approved three safeguards agreements based on the safeguards committee's model agreement. It hoped that other countries would not be long in concluding similar agreements so that NPT would become an effective instrument as soon as possible. In that connection, the United Kingdom warmly welcomed the news that the Council of Ministers of the European Communities had given a mandate for negotiations with the Agency.

63. The settlement of the vexed question of safeguards financing was not the least important achievement of the safeguards committee. In his delegation's view, the compromise reached was particularly favourable to the developing countries; nevertheless, the United Kingdom accepted it in good part and was glad that the issue was now out of the way for some years.

64. Another important aspect of the Agency's work had been the effort in regard to pollution.

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[6] GC(XIV)/OR.139, para. 22.

Everyone in the atomic field realized that there was a spotlight focused on the whole subject, and it was up to all to give wholehearted support to the Agency's endeavours in that respect. No one should withhold any relevant information; nor should political play be made with such an issue. All should be ready to undertake in good faith the fullest possible exchange of knowledge and experience. The project for a register of disposals of radioactive waste into the sea, and into rivers flowing into the sea, had been discussed in the Board. The United Kingdom, for its part, was already making available virtually all of the information that would be required from it for such a register; and it would be happy to go along with the register if others were prepared to contribute on an equitable basis.

65. In the United Kingdom view, it was most desirable for the Agency to play the leading international role on issues of atomic pollution and to elaborate recommended codes of practice. It could work to the disadvantage of atomic energy, and of the Agency, if some other non-atomic body were to take over, for example, the administration of the register, or to initiate any other project in that field.

66. The United Kingdom had played a big part in bringing INIS to its present stage, and it contributed regularly - and at a not negligible cost - all the information for which it was asked. However, his delegation had misgivings about the rapidly growing expenditure on the project, and about the advisability of developing it so quickly, and would be posing some questions in committee.

67. The United Kingdom would support the proposed budget for 1972 and would pay its full assessed contribution towards the increased target figure for the Operational Budget.

68. By way of additional support for the Agency's operational programme, the Central Electricity Generating Board would once again be willing to receive Agency fellows for training at United Kingdom nuclear power stations without charge to the Agency. He hoped that that would help to alleviate the shortage of such training facilities, which had recently been commented on in the Board.

69. The United Kingdom would be glad to assist the proposed study related to the introduction of nuclear power in developing countries.

70. He could not conclude his remarks without paying tribute to his friend and colleague Glenn Seaborg, who had made an outstanding contribution not only to the Agency's work but also to atomic energy from its very inception. He was sure that all wished him well on his return to university life.

71. Mr. ERRERA (Belgium) said that the harmonious and peaceful conference devoted to scientific and technical achievements in the nuclear field which had just taken place in Geneva and to which the Agency had made a major contribution gave grounds for confidence in the prospects offered to humanity by the ever more rapid development of the peaceful uses of atomic energy.

72. The favourable atmosphere which had prevailed at Geneva had likewise manifested itself in the deliberations of the Board's safeguards committee. His country was grateful to the Inspector General for the part he had played in the committee's protracted discussions on problems which had seemed to be insoluble. The Inspector General's competence and tact and the obvious will displayed by representatives to reach a settlement had enabled the committee to achieve the formulation of an adequate structure for the agreements to be concluded in connection with NPT.

73. One success led to another, and as had already been stated by the delegates of Italy and the Federal Republic of Germany, the difficulties which had arisen in formulating the authority to negotiate of the Commission of the European Communities for the conclusion of a verification agreement between EURATOM and the Agency had been overcome in their turn, and the Commission was now in a position to initiate negotations with the Agency for the purpose of concluding the agreement to which the ratification of NPT had been made subject by Belgium as well as its partners concerned in EURATOM. The present propitious atmosphere for reaching agreement would certainly promote a prompt and successful outcome of the negotiations between EURATOM and the Agency. Without in any way affecting one of the foundations of EURATOM, which had constituted a stage in the process of unifying an expanding Europe, Belgium would now be able to shoulder fully its obligations under NPT.

74. Undoubtedly the Agency would have to be extremely active in the coming months in drafting, concluding and bringing into force the agreements envisaged in Article III of NPT with the States party to the Treaty.

75. However, that task was only one part of the Agency's statutory functions. Its help continued to be essential for promoting the use of atomic energy in developing countries in close co-operation with the specialized agencies directly concerned. Nevertheless, judicious choices must be made in order to avoid the wasteful dissipation of funds at the Agency's disposal, which would always be too small in relation to the requests for assistance that it would receive. The Agency should make an even more determined effort to obtain financial support from the international organizations at whose request or suggestion it had undertaken projects, as indeed it had already done in the case of FAO. However, the cost of activities connected with the main functions of other specialized agencies (FAO, UNESCO and the World Health Organization (WHO)) should be borne primarily by those organizations and not for the greater part or even to the extent of one half by the Agency.

76. That duty of prudent management of funds allocated to the Agency was all the more imperative because of the disturbingly spectacular growth of the Agency's budget: a 40% rise in two years was far higher than normal, even having regard to the inescapable increases due to the rise in the cost of living and to the disturbances in the world monetary system.

77. Apart from its regulatory and technical assistance activities, the Agency would continue to deal with certain questions of world concern. At the present time, when public opinion had become aware of the importance of preserving the "quality of life" for humanity, it was logical for the Agency to continue its efforts to improve methods of preventing pollution resulting from radioactivity, but it should confine itself to that pollutant alone. Indeed, as the United States delegate had indicated, nuclear energy was, after water power, the cleanest source of electricity, thanks to the particular care taken in its production. [7] However, nuclear industry, like industry as a whole, did produce waste. It was one of the Agency's functions to perfect techniques for dealing with the highly toxic nature of that waste. The Agency should devote special attention to devising improved technical and regulatory solutions to the problem of radioactive waste disposal and above all, its storage. Of course, so far such problems had concerned only a small number of industrialized countries but, in the nature of things, they would in time confront all States, judging from the picture of the development of nuclear power stations painted by the United States delegate at the previous meeting.

78. Belgium considered that the Agency should concentrate on establishing suitable sites for storing waste, which would be accessible to anyone requiring to dispose of such materials, subject to the observance of strict rules and the exercise of effective control.

79. Belgium would in the near future deposit its instrument of acceptance of the amendment to Article VI of the Statute.

80. In conclusion, he stated that as in the past Belgium would place at the Agency's disposal six Type II fellowships and would endeavour, within the limits of its human and financial resources, to contribute towards the Agency's valuable efforts in developing technical assistance.

81. Mr. LAURILA (Finland) said it was obvious, in considering the Agency's activities for the past year, that the performance of its tasks in connection with the implementation of NPT had played an increasingly important part. The Board's safeguards committee had successfully completed its work, and negotiations for the conclusion of safeguards agreements in connection with NPT were now proceeding.

82. Finland had been one of the first States to ratify NPT and also the first Member State to conclude a safeguards agreement with the Agency under Article III thereof (signed in June 1971). [8] It was hoped that the consultations in that regard has proved helpful in clarifying the many issues arising in respect of the application of international safeguards to all the peaceful nuclear activities in a State and in paving the way for the successful outcome of the safeguards committee's work. His country was appreciative of the solid co-operation provided throughout by the Agency. It would be continuing negotiations after the General Conference in regard to the necessary subsidiary arrangements and he was confident that the agreement would be in force well before the deadline of 1 March 1972. In pursuit of its oft-stated aim to place its nuclear programme under the safeguards of a single international authority, namely the Agency, Finland intended to suspend the rights accorded to its bilateral partners, as provided for in the relevant bilateral agreements.

83. It was to be hoped that the Agency would be able to develop its safeguards practices, bearing in mind the goal of optimum cost-effectiveness and the requirements in relation to commercial transactions in nuclear materials. Many international rules of practice would need to be evolved in order to minimize the bureaucratic burden in handling such matters.

84. It would be evident that Finland attached great importance to NPT as a major contribution to international security. It was to be hoped that NPT would be implemented as widely and as soon as possible, in particular by the important industrial countries upon whose ratification its success would largely depend. His country took the view that collective security could be truly effective only when universal. Appropriate ways should therefore be found to secure the participation of States not yet Members of the Agency. In that connection, Finland wished to point out that the seat of China in the Agency belonged to the People's Republic of China.

85. In regard to budgetary matters, it was somewhat disturbing that the Director General had had to present Regular Budget estimates for 1972 providing for an increase of 17.9% as compared with 1971. In addition, the Conference had before it a proposal for a supplementary appropriation to meet increased expenditure under the Regular Budget for 1971 [9]. The proposal dealt with certain expenditures which, although foreseen in advance, had not been taken into account in preparing the approved budget for 1971. An effort should be made to draw up the budget for 1972 in a more realistic way in order that actual requirements would be covered. In view of increasing expenditure for salaries, the Director General's decision further to study organizational changes so as to obtain more efficient utilization of staff was to be welcomed.

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[7] See document GC(XV)/OR.144, paras 57-63.

[8] For the text, see document INFCIRC/155.

[9] GC(XV)/457.

86. His delegation strongly supported appropriate activities for further developing the philosophy of safeguards as well as safeguards practices. Consideration should be given, for instance, to training technicians to serve as safeguards inspectors rather than using highly-qualified engineers or people with academic degrees. It was to be hoped also that States party to NPT would adopt the rules of the Agency's system in their national regulations, thus reducing the burden and cost of safeguards.

87. With regard to technical assistance, his Government approved the raising of the target for voluntary contributions to $3 million. Subject to parliamentary approval, Finland would contribute to the General Fund in accordance with its Regular Budget assessment and, in addition, it was prepared to offer Type II fellowships in various peaceful applications of nuclear energy. The number of such fellowships would not be limited, but it would be subject to actual needs and the possibilities of providing the training required in Finland.

88. As indicated in the Director General's report on the provision of technical assistance by the Agency with special reference to 1970, [10] certain changes were to be instituted in UNDP procedures in order better to meet the requirements of the recipient countries and to augment the impact of technical assistance. It should be noted that, despite its support for the increased target for voluntary contributions, his Government preferred international multilateral aid to be channelled mainly through UNDP. It therefore expected that the technical assistance provided by the Agency would be co-ordinated as much as possible with UNDP aid; national priorities should, however, be given due weight.

89. There had been criticism on many occasions of the practice of splitting limited funds among a large number of small projects throughout the world. It would be worth while from now on to pay more attention to the merits of the projects put forward for support and seriously consider having fewer but larger projects that could be prepared and implemented more efficiently.

90. It was a matter for satisfaction that the Agency was continuing its close co-operation with other United Nations bodies. Such co-operation was an obligation rather than a privilege; for nuclear energy was a tool which could serve a useful purpose in many sectors coming within the competence of other United Nations bodies, and for many years to come the problems connected with its peaceful applications would necessarily be in the hands of the Agency.

91. His Government wished to emphasize the importance of nuclear power as a new source for meeting increased energy requirements in the world. The problems in that area were manifold and lack of experience often made for difficult situations, particularly in the developing countries. The major difficulty in developing nuclear power did not, in his opinion, lie in financing of the investment. Once a country's future energy requirements had been estimated, it should be possible to decide between nuclear and conventional power. In all the phases of such development the Agency could render valuable assistance and service, but the decision rested with the country alone. The large majority of Member States opting for nuclear power would have to purchase their power plants from abroad; and the purchaser's interest in having all economic and safety requirements fully met should be kept in mind. Environmental protection and the safety of nuclear installations were matters in which public interest was greatly increasing.

92. The Agency should increase its activities in informing the international community of the positive role that nuclear power stations, as opposed to those operated by fossil fuels, could play in reducing pollution of the environment. Much new information in that connection would come out of the Stockholm Conference on the Human Environment.

93. The total capacity of nuclear power plants would rise in the very near future, and such plants would play a substantial part in the power economy of many countries. At the same time, the number of countries installing nuclear power would increase, and hence foreign trade in the supply of nuclear plants. Speedy ratification of NPT and the conclusion of safeguards agreements with the Agency would serve to standardize international safeguards rules, and that would greatly facilitate the trade in question, which was of common interest and a challenge to all.

94. In conclusion, he commended the Director General and the Secretariat for the constructive work done over the past year. The Agency deserved special credit for its performance in the face of challenging and difficult responsibilities. His Government would pledge its full support for the continuation of that work in the future.

95. Mr. OGUNIANA (Nigeria) recalled that in the early and mid-1950s the applications of atomic energy for peaceful purposes had been in an embryonic stage. Before that period the mention of the expression "atomic power" had conjured up in the minds of most people a sordid picture of the wholesale destruction of people and their cultural monuments. Mankind was eternally indebted to the renowned scientists who had discovered and developed the peaceful uses of atomic energy. The continued dread of the destructive power of atomic energy was to some extent relieved by the growing emphasis on the peaceful application of atomic power. The Nigerian delegation wished to make a strong appeal to the more technologically advanced countries, particularly the two Super Powers, to allow the positive and peaceful aspects of nuclear science to have lasting ascendancy over its destructive ones.

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[10] GC(XV)/INF/131.

96. The impact of the great discoveries of the renowned scientists might never have been felt, however, if there had been no vehicles to bring the skills of the peaceful uses of nuclear energy to the doorsteps of most countries. The creation of the Agency in October 1956 had provided the greatest impetus to the universal application of atomic energy for peaceful purposes in pursuance of Article II of its Statute. The Director General, among others, was to be congratulated on the Agency's record of achievement since 1956.

97. The four Geneva Conferences on the Peaceful Uses of Atomic Energy convened in 1955, 1958, 1964 and 1971, in particular the last Conference, which had ended only the previous week (and in which the Agency had played a leading role), had educated scientists and laymen alike on the promise and danger of atomic energy. The Fourth Geneva Conference had brought into sharp focus the staggering developments in the application of atomic energy for the production of electricity and large-scale desalting of sea water, the various uses of isotopes in agriculture and industry and the application of radiation in medicine. The Director General had graphically outlined the progress made when he had said that we had now reached the stage where nuclear power could in some areas compete with conventional means of generating electricity and that it was accounting for an ever-increasing proportion of installed capacity. The present figure was 2%, but by 1980 it was expected to reach 13% and by the turn of the century, some 50%. Responsibility for the development and construction of reactors had, to a great extent, been taken over by industry. The large-scale introduction of nuclear power had become a matter of importance to economists, planners and government officials.

98. Although the above-mentioned developments were laudable and welcome, the Nigerian delegation believed that the end of the tunnel would not be in sight until the countries which, through unfortunate circumstances, had remained on-lookers in the staggering scientific revolution became participants for the mutual benefit of all mankind. It was a matter for regret that many countries still remained on the fringes in the momentous developments described. It was true that only the more advanced and richer countries could at present derive benefits in economic terms from the more sophisticated applications of nuclear energy. However, developing countries should be assisted at a faster pace than at present to raise standards in agriculture, engineering, medicine, etc. by introducing the numerous applications of nuclear science. While the Nigerian delegation was not asking the more advanced nations to wait for others, it felt that the whole of mankind would be enriched if some impetus were given to scientific revolutions in developing countries so that the yawning scientific gap currently existing between the two categories of States in the world could be bridged.

99. The problem of under-developed countries was that of introducing modern science and technology into their societies, and transforming their economies into those relying on science-based industries. The establishment of a world standard capability in nuclear science would have far-reaching ramifications. Nigerian experience, particularly in the recent past, had shown that reliance on others led to more reliance - a vicious circle that made despair inevitable. It was a lack of self-reliance that led to economic servitude and human exploitation which political independence alone could not eliminate. Those who remained consumers as opposed to producers could not expect to become self-reliant.

100. His delegation's viewpoint was that there was no point in blaming others for the plight of the under-developed. A country had to be aware that nuclear science could not be useful to it if it were not useful to nuclear science.

101. The General Conference afforded Members an annual opportunity to take stock of the activities of the Agency. The Nigerian delegation had read with keen interest the background documents for the session, in particular the annual report in document GC(XV)/455, on which the Board was to be congratulated. One of the greatest events of the past year in the context of the diverse activities of the Agency had been the successful formulation of the structure and content of the safeguards agreements to be concluded between the Agency and non-nuclear-weapon States party to NPT as required by Article III.4 thereof. In June 1970 the Board had established a safeguards committee to advise it as a matter of urgency on the scope and content of the agreements envisaged. The Nigerian delegation believed that the Agency and the safeguards committee deserved the wholehearted gratitude of the Conference for the logical and expeditious manner in which they had performed the seemingly impossible task of formulating recommendations for the negotiation of the agreements. In fact, it had been said in many forums outside the Agency that the expeditious manner in which the safeguards committee had elaborated the delicate compromise document could serve as a model for other United Nations bodies and international meetings handling similar intractable issues.

102. The Nigerian Government welcomed the arrangements recommended by the safeguards committee, in particular those relating to the financing of safeguards, where a delicate balance had been struck between the interests of the rich and the developing areas of the world, giving a slight advantage to the latter. It was his delegation's hope that the safeguards procedures would prevent the further proliferation of nuclear weapons.

103. The Nigerian delegation wished, however, to appeal to nuclear Powers to move a step further than the Moscow Partial Test Ban Treaty, and to conclude a comprehensive nuclear test ban treaty that would cover all underground tests. He was aware that the matter was being considered in the appropriate forum in Geneva, but felt that it was apposite to make a reference to it while discussing further steps which non-nuclear-weapon States

were taking to fulfil the obligations they had assumed under NPT. It should be emphasized that the prospect of an early comprehensive nuclear test ban treaty was the quid pro quo for the signing of NPT by many non-nuclear-weapon States, a Treaty which some had aptly dubbed "the disarming of the unarmed".

104. The Nigerian delegation was happy to observe the Agency's growing emphasis on technical assistance activities, particularly in regard to agriculture, engineering, medicine and health. It was also gratifying to note that of all those areas of technical assistance, agriculture had had the lion's share. His delegation had noted that the resources made available to the Agency for technical assistance had grown. Members of the Agency were at different levels of nuclear development, however. Those not in a position to derive full benefit from the Agency's more comprehensive and sophisticated applications of nuclear power for peaceful purposes should therefore have in compensation at least the opportunity of raising standards in agriculture, engineering, medicine, etc. through the goods and services provided by the Agency and both the Special Fund and Technical Assistance components of UNDP.

105. In Nigeria some technical assistance programmes were being implemented in electronics engineering, radiation protection and the application of isotopes in agriculture. Many Nigerian nationals had also derived immense benefits from Agency fellowships in various fields. The technical assistance given by the Agency was greatly appreciated, but it was hoped that in future a more liberal approach would be taken in approving technical assistance projects, in particular for countries that were not in a position to take advantage of the broader possibilities offered by the Agency. In that connection the Nigerian delegation wished to appeal to the richer nations to make more voluntary contributions to the General Fund. It was encouraging to note that $3 million was the target for voluntary contributions to the General Fund.

106. His delegation wished to endorse the Board's recommendations concerning the Agency's annual reports to United Nations organs. [11] In order to avoid needless duplication of reports and thus effect savings in expenditure on documentation, the General Conference should decide that the report which it received each year from the Board should henceforth serve as the Agency's annual report to the General Assembly of the United Nations and its annual report to the Economic and Social Council.

107. With regard to the direction that the Agency's programmes in developing countries should take, the Nigerian delegation considered that they should include the following elements:

(a) Developing countries should be encouraged to contribute to nuclear science in a significant way, for only those who could produce could fully absorb;

(b) Supporting experiments and tests should be tailored to fit those contributions;

(c) Particular encouragement should be given to the development of nuclear science and technology related to prospecting and the evaluation of natural resources, and to other applications designed to strengthen a country's development; and

(d) Above all, maximum support should be given to countries that were innovative, disengaging themselves from the usual nuclear gadgets and toys.

108. A country like Nigeria, which was rich in oil and other minerals, was an excellent example of a poor country in which what had just been suggested could be of enormous assistance in promoting scientific and economic development. The amount of time and expense that would be saved by using nuclear techniques for prospecting, evaluation and possibly the production of oil in Nigeria should not be underestimated. Such an approach would enable the country simultaneously to absorb the benefits of nuclear science and to accumulate the wealth to engage in further industrial development.

109. In that connection, the Nigerian delegation wished to see further research on peaceful nuclear explosions (PNE), in pursuance of Article V of NPT, which provided for international co-operation in sharing the benefits that might be derived from the use of nuclear explosions for peaceful purposes with non-nuclear-weapon States. It had been gratifying to note at the second international technical meeting on PNE in January 1971 that it was now technologically possible to use nuclear explosives underground on an industrial scale to stimulate gas and oil production, to create storage space for hydrocarbons (gas, oil and oil products) and to seal defective gas and oil wells. It was hoped that in the not-too-distant future Nigeria would have acquired the prerequisites that would enable her to absorb the benefits of nuclear techniques on an industrial scale.

110. While his delegation was aware that the Agency was essentially a technical body, it considered it necessary to stress that the presence of South Africa in the Agency was inimical to the interests of the African continent. It was appalled by the fact that through a loop-hole in the Statute of the Agency, South Africa was a Member of the Board, purportedly on the basis of being the most advanced country in nuclear technology in Africa. It was obvious, in his view, that a country that was notorious for its policy on racial relations and for its persistent disregard

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of United Nations decisions could not co-operate meaningfully with other African countries in the applications of nuclear science. It was the fervent hope of his delegation that the Agency would address itself to that very serious problem.

111. Mr. GLENNAN (United States of America) said that the United States delegation welcomed with great satisfaction the announcement by the delegate of Italy that EURATOM was ready to commence negotiations with the Agency under Article III of NPT. It looked forward to the successful conclusion of those negotiations, which would represent a major step toward the realization of the world-wide system of safeguards that NPT envisaged.

● The meeting rose at 5.45 p.m.