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# NINETEENTH REGULAR SESSION: 22-26 SEPTEMBER 1975

RECORD OF THE ONE HUNDRED AND SEVENTY-EIGHTH PLENARY MEETING

Held at the Neue Hofburg, Vienna, on Tuesday, 23 September 1975, at 3.20 p.m.

President: Mr. FELICKI (Poland)

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\* A provisional version of this document was issued on 26 September 1975.

\*\* GC(XIX)/559.

The composition of delegations attending the session is given in document GC(XIX)/INF/157/Rev.2.

#### THE RECORD

GENERAL DEBATE AND REPORT FOR 1974-75 (GC(XIX)/544, 544/Corr.1, 554)(continued)

Mr. OSZTROVSZKI (Hungary) said he was 1 happy to note that the Conference's session was taking place in a climate of international détente. That was due largely to the results of the recent Conference on Security and Co-operation in Europe (CSCE), the Final Declaration of which, signed in Helsinki, opened a new era of European The favourable evolution of the interrelations. national situation was due essentially to the reestablishment of peace in the Indo-Chinese Peninsula. It was now up to the United Nations and its specialized agencies, as well as the Agency. to help the Vietnamese people, which had been so sorely tried, and it was to be hoped that the two republics of Viet-Nam would become members of the Agency.

2. However, peace was still threatened. Fascist and racist régimes, war-industry circles in the advanced capitalist countries, and the situations in Cyprus and the Middle East, were so many obstacles to a further easing of tension.

The Review Conference of the Parties to the 3. Treaty on the Non-Proliferation of Nuclear Weapons (NPT Review Conference)[1], had been one of the year's outstanding events, for it would beyond any doubt favour further steps towards nuclear disarmament. In the opinion of his delegation, the Final Declaration of that Conference was highly pertinent to the Agency's activities and should be borne in mind in all its aspects. In particular, in present circumstances, with the risk of a proliferation of nuclear weapons still growing, the Hungarian Government attached primordial importance to the strengthening of measures aimed at the prevention of any form of proliferation. that connection, his Government unreservedly supported the proposal of the Soviet Union at the thirtieth session of the General Assembly of the United Nations, that experimental nuclear explosions for military purposes should be banned completely. The Hungarian delegation welcomed the accession of five Member States of the European Atomic Energy Community (EURATOM) to NPT and hoped that other countries not yet party to NPT would follow that example.

4. As he had already stated at the NPT Review Conference the Hungarian Government considered it indispensable that the Agency's Safeguards System (1965, as Provisionally Extended in 1966 and 1968)[2] should be strengthened. States which were already party to NPT, but had not yet concluded safeguards agreements with the Agency, should thus do so without delay. That was all the more urgent in view of the fact that certain bilateral safeguards agreements contained infringements of the provisions of NPT. The Agency should do all in its power to ensure that that instrument was universally respected; that meant that the safeguards system should also be universally applied. From the point of view of nuclear safety and the application of safeguards, the establishment of regional nuclear energy centres was extremely desirable, even without regard to the great prospects which they offered for the production and consumption of energy.

5. The Hungarian delegation attributed the greatest possible importance to the activities connected with peaceful nuclear explosions (PNE) which laid such a heavy burden of responsibility on the Agency. The methods of providing assistance to countries in that field would have to be studied with great thoroughness. Under the provisions of NPT, only nuclear-weapon States which had signed NPT were entitled to provide PNE services. Moreover, the Hungarian delegation had always held the view that the beneficiaries of those services should also in the first instance be States which had signed NPT.

6. In technical assistance, the order of priorities should be determined by the requirements expressed by a majority of States; and in that connection it seemed clear that the applications of radioisotopes needed more attention. In almost 70% of countries, the preservation of foodstuffs was a difficult problem. Apart from the energy crisis, other vitally important problems lay in food shortages and hence in the supply of foodstuffs and the improvement of agricultural production.

7. The Hungarian delegation was pleased to announce that Hungary was participating in a joint Agency-United Nations Development Programme (UNDP) project relating to the construction of sterilization plants for medical equipment. It regretted, however, that UNDP was not making greater use of the Agency in implementing its projects, especially at the regional level.

8. Conscious of the importance of the Agency's activities, and aware of its financial difficulties, the Hungarian Government had decided on a 33% increase in its voluntary contribution to the General Fund, an increase which would raise the level of the contribution to one million forints in 1976.

9. Referring to the Agency's budget for 1976, [3] the Hungarian delegation noted that although a marked percentage increase in the allocations was planned for certain sections, the funds for technical assistance would be insufficient. The allocations planned for publishing activities, which were very important, were also too small. On the other hand, his delegation supported the estimates for safeguards, which could be effective only if

<sup>[1]</sup> Held at Geneva from 5 to 30 May 1975. The text of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) is reproduced in document INFCIRC/140.

<sup>[2]</sup> INFCIRC/66/Rev.2.

<sup>[3]</sup> GC(XIX)/550.

sufficient funds were available for their application.

10. The Hungarian delegation welcomed the agreement concluded between the Agency and the Council for Mutual Economic Assistance (CMEA), as it bore witness to good progress in co-operation between intergovernmental organizations. It would be very useful if the Agency and CMEA each published material relating to activities and meetings of the other organization in one and the same working language. The exchange of information would be accelerated in that way.

11. In conclusion, he said that despite past achievements his country, for want of funds, could not make as much use of nuclear applications as it would like to. That was one of the reasons why Hungary had tried to co-ordinate its national plans with the FAO/IAEA programme. The country's first nuclear power station was under construction and a sterilization plant for medical equipment was being built under a UNDP/IAEA project. Hungary was participating actively in food programmes and in various other Agency programmes on the basis of research contracts relating to scientific work being carried out in Hungary.

12. The Hungarian delegation welcomed the representatives of Qatar, the United Arab Emirates and the United Republic of Tanzania, whose recent admission to membership of the Agency strengthened the latter's universal character. [4]

13. Mr. MOROKHOV (Union of Soviet Socialist Republics) congratulated the President on his election and welcomed the representatives of Qatar, the United Arab Emirates, the United Republic of Tanzania, and the delegation of the heroic people of the Republic of South Viet-Nam.

14. The present session was being held in an atmosphere of international détente, which had further been promoted by the Conference on Security and Co-operation in Europe. That conference, which was bound to lead to a slowing down of the arms race, was a landmark on the road to peaceful coexistence between States having different social structures.

15. As had been observed by Mr. L. Brezhnev, the General Secretary of the Central Committee of the Communist Party of the Soviet Union, it was the achievement of international détente through effective progress in disarmament that would help to consolidate and maintain peace in Europe. Various agreements which had been concluded during the preceding years were a means of slowing down the arms race in certain areas. Among those agreements, first position must be accorded to NPT. Although it had not been possible to put a complete stop to the arms race, the Soviet Union considered that the situation was now such that specific disarmament steps could be taken at the international level. That was the aim of the new action taken by the Soviet Union for securing inclusion in the agenda of the thirtieth session of the General Assembly of the United Nations of the important and urgent matter of the conclusion of an agreement on the general and total prohibition of nuclear weapon tests. Such an agreement would contribute greatly to the limitation of the arms race.

Solution of the problems of disarmament 16 required intensified efforts on the part of all countries and, in particular, of the Great Powers. The Soviet Union would certainly continue its efforts in that direction until general and total disarmament had been achieved, since that endeavour was an inseparable part of its peace-loving foreign policy. In that context, historical significance attached to its new initiative to induce States, and especially the Great Powers, to conclude an agreement on the prohibition of development of new types of weapons of mass destruction. An agreement along those lines, as suggested by Mr. Brezhnev, would in fact help supplement political détente with a military détente. It was no mere chance that the proposal had met with wide approval in world opinion.

17. In recent years, there had been a definite intensification of the talks on disarmament. During the meeting at Vladivostok held in November 1974, the foundation had been laid for a new long-term agreement on the limitation of strategic weapons. Negotiations preparatory to drafting a treaty for that purpose were being conducted at Geneva. The talks on the reduction of armed forces and armaments in Central Europe were to be resumed shortly in Vienna. The Soviet Union and the United States were continuing their negotiations relating to PNEs as an extension to their Treaty on the Limitation of Underground Nuclear Weapons Tests of 3 July 1974[5].

The CSCE in Helsinki, too, was of great 18. significance to the Agency since it had laid down specific forms of collaboration in economics, science, technology, environmental protection, etc., which were matters of direct concern to the Agency. Such collaboration was certainly of direct interest not only to countries of the European continent but also to those in other areas of the world. In the Final Act of the CSCE, it was emphasized that international and intergovernmental organizations could and should contribute to implementing the agreements arrived at. Of the important scientific and technical problems to which it had drawn attention, several came within the sphere of the Agency, for example, the study of new resources of energy, including atomic energy, plasma physics, theoretical and experimental physics and environmental protection. In the opinion of the Soviet delegation, the Agency should give due place to those problems in its programme and thus contribute to their practical solution.

<sup>[4]</sup> See document GC(XIX)/OR.176, paras 14-20.

<sup>[5]</sup> Reproduced in document INFCIRC/208.

19. The current session was being held shortly after the NPT Review Conference, which had played an important part in strengthening the international authority of NPT, reinforcing its universal nature and increasing its effectiveness, thereby contributing to the non-proliferation of nuclear weapons.

20. As had been rightly emphasized by the Director General in his statement at the 176th plenary meeting, the NPT Review Conference was of particular importance for the Agency, since the recommendations which it had adopted would inevitably have considerable implications for the further development of the organization's activities in areas such as safeguards, technical assistance to developing countries in the peaceful uses of atomic energy, provision of PNE services and so on.

The delegation of the Soviet Union noted with 21. satisfaction that the Agency's efforts in connection with NPT had met with approval at the NPT Review Conference. It was now the Agency's responsibility to implement the decisions of that conference. As regards safeguards in connection with NPT, the Agency was appreciably expanding and intensifying its activities. It was a positive achievement on the Agency's part, as had been noted in the documents of that conference, that in exercising its safeguards functions it respected the sovereign rights of States and did not interfere with the scientific or technical development of States party to NPT or hinder international co-operation in peaceful nuclear activities.

That acknowledgement justified the course 22. which the Agency was following in solving the complex problems of safeguards. It was essential that it should strengthen its authority as the competent international body in that field by developing and applying the best technical methods and systems for safeguards and by improving the organization of safeguards and inspection proce-That objective could be attained more dures. easily by improving and automating the processing of safeguards data, improving the equipment needed for analysis of such data and establishing effective national systems for nuclear materials accounting.

Vital importance attached to the increase in 23 the number of accessions to NPT, its ratification by countries which had already signed it, and the conclusion of the relevant safeguards agreements between States party to NPT and the Agency. In that connection it was particularly gratifying to note the accession to NPT of Members of EURATOM possessing an advanced nuclear industry such as the Federal Republic of Germany, Italy, Belgium, the Netherlands and Luxembourg. It was now to be hoped that Japan, Switzerland and other countries which had not yet ratified NPT would not delay in following their example. It was essential that the Agency should expedite the conclusion and application of the safeguards agreements provided for in Article III, paragraph 1 of NPT. The General Conference should make an appeal to that effect to countries which had not yet concluded such an agreement, and the Secretariat should show greater initiative in that direction.

24. The Agency was systematically and energetically pursuing its efforts to enhance the effectiveness of control. For several years past the Soviet Union had been according the Agency its assistance in improving safeguards techniques and it intended to continue active co-operation in that respect. It was clear that the organization of control and inspection had important implications for the effectiveness of operations. As regards recruitment of inspectors the Agency should, in principle, endeavour to secure the services of highly qualified experts primarily from countries party to NPT, while aiming at equitable representation of the various geographical regions.

The NPT Review Conference had ascribed 25 substantial importance to the problems raised by the exercise of control in countries which were not party to NPT. After noting that numerous States which supplied nuclear materials and equipment had reached agreement regarding the control measures provided for in Article III. paragraph 2 of NPT, the Review Conference had stressed the need to reinforce those measures. In the opinion of the Soviet delegation, it was important that States supplying nuclear materials and equipment or other forms of assistance associated with the peaceful uses of atomic energy to a country which had not yet acceded to NPT should require the latter to undertake not to use the materials delivered for manufacture of nuclear explosive devices of any kind.

26. The Agency should definitely increase the effectiveness of control in non-nuclear-weapon States which were not party to NPT. For that purpose it should, as far as possible, retain the provisions of its "old" safeguards system, and endeavour to extend the control measures to the whole of the peaceful nuclear activities of the countries in question. The Soviet Union fully endorsed the Director General's remarks on that subject during his statement. Several of the fundamental provisions on strengthening of Agency control which had been recommended by the NPT Review Conference could very well be incorporated in safeguards agreements forthwith.

27. The NPT Review Conference had given strong support to the concept that non-nuclear-weapon States party to NPT should enjoy priority in obtaining technical assistance in the field of the peaceful uses of atomic energy, whether on a bilateral basis or through the intermediary of the Agency.

28. The Soviet Union approved of the Agency's current studies on regional fuel cycle centres. The establishment of such centres would not only bring with it economic advantages for the developing countries, but would also strengthen the control exercised by the Agency in preventing the proliferation of nuclear weapons.

29. The decisions taken by the NPT Review Conference in connection with Article V of NPT were also of great significance for the Agency. It emerged clearly therefrom that the Agency was indeed the appropriate international body referred to in Article V of NPT through whose intermediary services in connection with nuclear explosions for peaceful purposes should be supplied. In stressing the Agency's role in that domain, the conference had invited the Agency to expedite a solution to the problems raised by the conclusion of the international agreements foreseen in Article V, and to broaden its consideration of the subject "to encompass, within its area of competence, all aspects and implications of the practical applications of nuclear explosions for peaceful purposes".

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30. The Soviet Union particularly approved of the Agency's activities under such headings as nuclear power, thermonuclear fusion research, environmental protection, the International Nuclear Information System (INIS), nuclear power station safety and the practical application of NPT. In that connection reference should be made to an area of particular importance, already mentioned by numerous delegates, namely the drafting and revision of standards for the physical protection of nuclear materials. The Soviet Union unreservedly supported those Agency activities, and consequently likewise approved its annual report (GC(XIX)/544 and Corr.1).

31. As a result of the rapid increase in world energy demands and in the price of fossil fuels, nuclear power had acquired particular importance in recent years. It would soon become one of the principal ways by which the demand for electricity could be met.

32, The Soviet Union was implementing a vast nuclear power programme, the outlines of which had been laid down for the years 1971-75 in the directives of the Twenty-fourth Congress of the Communist Party of the Soviet Union. In that connection it should not be forgotten that the Soviet Union had available adequate natural energy resources and that the development of nuclear power in the country was governed by economic considerations. The installed nuclear capacity in the Soviet Union already exceeded 5500 MW. The new reactors installed in power stations already in operation and in stations still to be commissioned would have a total capacity of the order of 15 000 MW. Like other countries the Soviet Union was at present using for power generation purposes fast-neutron, pressurized light-watercooled reactors with a unit capacity of 440 or 1000 MW, and channel-type uranium-graphite reactors with a unit capacity of 1000 MW.

33. Ten years of experience in operating the Novovorenezh nuclear power station, the Kola power station situated beyond the Arctic Circle, and also plants of that type built in other countries with Soviet assistance had proved the reliability, safety and economic viability of the facilities concerned. The stations were operating at a utilization factor representing over 75% of their installed capacity, at a price per kWh of electricity lower, for example, than that associated with thermal power stations operating on coal from the Donets basin.

34. A two-unit power station equipped with WWR-440 reactors, and providing for the possi-

bility of expansion, at present represented the standard type of facility used in the Soviet Union and in States Members of CMEA, and should certainly likewise be of interest to numerous developing countries. The second unit of the Leningrad nuclear power station had been commissioned in mid-1975. The design concepts applied to construction of the first nuclear power station in the world at Obninsk and of the Byeloyarsk station had come to full fruition in the erection of the Leningrad facility. The start-up of the second unit brought the capacity of the Leningrad station to 2000 MW, with the result that it was now the largest in Europe. In addition to building its own nuclear power stations, the Soviet Union was granting technical assistance for the construction of large facilities of that kind in the States Members of CMEA and in Finland, using a standardized model equipped with WWR-440 reactors.

35. Wishing to promote the peaceful applications of nuclear energy, the Soviet Union had likewise announced its readiness to enrich - under Agency supervision - uranium belonging to other countries. That kind of service at present constituted an important aspect of international co-operation in the sphere of the peaceful uses of atomic energy.

36. In the Soviet Union sustained attention was being paid to the development of new sources of energy with improved yield, primarily fast neutron reactors. A nuclear power station equipped with reactors of that type was at present undergoing industrial trials, and as from the end of the following decade it was expected that facilities of that type would permit the rapid development of nuclear power generation based on a thorium fuel cycle, thus making it possible to save natural uranium resources.

37. After completion of maintenance work, the Shevchenko nuclear power station, equipped with a BN-350 fast neutron reactor, had been brought up to a power level representing something like 60% of its rated capacity, and would probably achieve the latter by the end of the year. Two years' operation of the reactor, the use of liquid sodium and the experience obtained during the maintenance work had made it possible to establish valuable documentation and solve various important problems associated with that type of reactor, and to ensure its future reliability and safety.

38. At the site of the Byeloyarsk nuclear power station near Sverdlovsk, work was at present proceeding on the installation of a new BN-600 fast neutron reactor of 1470 MW(th) capacity. Construction work was practically finished, component assembly was under way and it was expected that the facility would be commissioned in 1977. The preparation of a project for a 1500 MW(th) fast breeder reactor was in progress. Those prototypes were intended to yield data on breeding characteristics and were consequently considered as the principal basis for the development of nuclear power in the Soviet Union in the near future.

39. Research on controlled thermonuclear fusion represented one of the most important areas in

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the search for new energy resources. The present year had seen the erection in the Soviet Union of the world's largest facility for study of plasmas (Tokamak-10), and work had started on a plan for a demonstration thermonuclear reactor of the type Tokamak-20.

Owing to the world-wide importance of 40. solving the problems presented by thermonuclear fusion, including the technical and scientific difficulties involved and the high cost of the installations concerned, it was quite essential that scientists, engineers and construction experts from a large number of countries should pool their efforts. The Soviet Union was gratified at the Agency's activities in that direction. In the summer of 1975, on the initiative of the Agency and Soviet scientists, a meeting of experts had been held to consider large thermonuclear devices. It had discussed the designs developed in the Soviet Union, the United States, States Members of EURATOM and Japan. With the completion of those designs, close co-ordination and possibly co-operation in the construction of facilities and research carried out with those facilities, it would be possible, in the second half of the next decade, to begin development work on the main components of a pilot fusion power plant.

41. The Soviet Union attached great importance to the use of nuclear power plants for ship propulsion. In May 1975 the atomic ice-breaker "Arktika" had undergone its first practical tests and in June had set out on its first voyage, inaugurating a new route. The "Arktika" was the most powerful non-military vessel in the world.

42. Institutes and laboratories in the Soviet Union were successfully studying the fundamental properties of matter. Soviet scientists had carried out several unique experiments on the physics of the atomic nucleus and nuclear reactions. Thev had produced a new element now carrying the number 106 in the periodic table; and in collaboration with physicists at the European Organization for Nuclear Research (CERN), they had discovered a new elementary particle - the neutral h-0-meson, Several new phenomena and processes occurring in atomic nuclei during interaction with various elementary particles had also been discovered. The results were of great importance for a deeper understanding of the nature of matter and for the solution of practical problems.

43. The Soviet Union welcomed the approval soon to be given to the agreement between CMEA and the Agency. [6] It participated actively in the work of that important organization of socialist countries. In recent years, CMEA had evolved important programmes, such as the programme of scientific and technical collaboration for the solution of fuel and energy problems for the period 1976-80, including nuclear power, and a study of the prospects for development of nuclear power in States Members of CMEA for the period up to 1990. 44. The nuclear power programme envisaged joint study of about 80 important subjects, including problems of large power reactors, management and control of nuclear power plants, multipurpose reactor facilities, nuclear fusion and so on.

45. The "Interatomenergo" Association, established in 1974 for co-operation in the production and supply of equipment and for the provision of technical and scientific assistance in the construction of nuclear power plants, had been functioning satisfactorily.

Since the Agency's inception, the Soviet 46. Union had been participating actively in the implementation of its programme of technical assistance to developing countries in the peaceful uses of atomic energy. That participation took the form of annual voluntary contributions, which were used essentially for the supply to those countries of Soviet equipment, instruments and nuclear materials, for the grant of fellowships for training scientists and specialists from developing countries in Soviet scientific institutions, for organizing study tours in the Soviet Union, and so on. In the years since the signing of NPT, the Soviet Union's voluntary contribution to the General Fund had risen from 100000 roubles in 1968 to 500000 roubles in 1975.

47. Thanks to those contributions, the Agency had been able to organize ten study tours in the Soviet Union, in which 250 specialists from 40 countries of Asia, Africa, Latin America and Europe had taken part. The participants had been able to visit the leading Soviet institutes, scientific centres and nuclear power plants. Preparations were now being completed for a new study tour which would focus its attention on nuclear power development.

48. In pursuance of its policy of technical assistance to developing countries, the Government of the Soviet Union had decided further to increase its voluntary contribution to the General Fund, raising the amount for 1976 to 550 000 roubles in national currency. Those funds would be utilized, in accordance with the Agency's programme and under its control, for the supply of Soviet equipment, instruments and materials, for the organization of study tours and for other types of technical assistance to developing countries, especially to those which were party to NPT.

49. In conclusion, he wished to emphasize once more that, in conformity with the peace programme approved by the Twenty-fourth Congress of the Communist Party of the Soviet Union, his country advocated extensive international co-operation in the peaceful uses of atomic energy and further strengthening of NPT. It was to be hoped that the General Conference would promote co-operation of that type on the basis of equality and thus contribute to consolidating peace in the world.

50. Mr. de CARVALHO (Brazil) referred to the importance of the Agency's achievements during the 19 years it had been in existence in the development and use of atomic energy for peaceful purposes. The International Conference on

<sup>[6]</sup> The draft agreement is set out in document GC(XIX)/545, Annex.

Nuclear Power and its Fuel Cycle, to be held at Salzburg in 1977, was an initiative of outstanding value both for the developing countries and for those industrially more advanced. In practical terms that Conference would be of greater significance than the four Geneva Conferences; it would favour international collaboration and make way for standardization of the most effective nuclear techniques.

51. Everyone knew that technical assistance was among the foremost concerns of the developing countries, yet the funds assigned to that sphere of activity stemmed almost entirely from voluntary contributions; the programmes were thus closely dependent on the good will of a few Member States. In principle, the contributions should be proportional to the budgets or to the gross national product of the industrialized countries so as to ensure a balance between the funds available and the requests for assistance from the developing countries.

52. The distribution of resources under the Regular Budget ought to be better balanced, especially in view of the fact that ever increasing amounts were being devoted to safeguards activities.

53. In 1974, the Brazilian Government had decided on self-sufficiency in the country's power production as its priority aim. Accordingly, it had made intensive efforts in prospecting for oil on the continental shelf and in the use of hydro-electric power; it had also decided to speed up the introduction of nuclear power. Brazil had a high rate of power growth; present aggregate generating capacity was 20 000 MW(e), but it was expected to reach 60 000 MW(e) by 1985, of which 3200 MW(e) would be accounted for by nuclear energy.

54. As the Director General had stressed in his statement, nuclear programmes gave rise to problems without parallel in other technologies. The safety of nuclear power stations and strict supervision of all the complex stages of the fuel cycle required the enlistment of highly specialized personnel; the Agency would accordingly make a very useful contribution by giving priority to training programmes. It had already organized a course at Karlsruhe and similar courses were to be held at Argonne and Saclay.

55. The problem of financing was a matter of concern for all countries, no matter how far developed, but obviously much more so for developing countries which were launching nuclear power programmes because the instability of oil prices had made nuclear power competitive. The introduction of nuclear power naturally required an intensification of uranium exploration in all countries and the dissemination of information on thermal and fast reactor technology.

56. Industrial pollution was also the cause of misgivings in Brazil, and an ecological institute had been set up to study ways of overcoming that problem. As far as the implications of development for the environment were concerned, it had to be stressed that the developing countries, which faced problems of hunger, inadequate housing and medical care, and unemployment, were forced to seek a compromise between the vital need to increase their productivity and the unavoidable risk of pollution inherent in industrial development.

57. Although the Agency had never been particularly eager to become involved in such matters, it was nevertheless an organization eminently suited to enlightening world opinion on the true hazards inherent in the use of nuclear power. The high qualifications of its staff, its impartiality by virtue of its scientific and international character, and its world-wide range of action should encourage it to broaden the scope of its role as a clearing house for information and to take special action to that end.

58 The Brazilian delegation wished to emphasize the encouraging results that had been obtained in the sphere of international co-operation, especially with France, the Federal Republic of Germany, Italy, the United States of America and certain other countries. The Government had signed an agreement with the Federal Republic of Germany, in June 1975, relating to uranium ore prospecting, mining and milling, the construction of reactors and other nuclear facilities, uranium enrichment services and fuel production, and irradiated fuel reprocessing. In the agreement the two Governments expressed their intention to place under Agency safeguards the export of materials, equipment and nuclear facilities, source materials and fissile materials produced. processed or utilized, and the technical information communicated.

59. As delegates were aware, the Brazilian Government had invited the General Conference to hold next year's session in Brazil, and was prepared to place at the Agency's disposal all the services and facilities needed to ensure the smooth conduct of the proceedings. [7]

60. Mr. ABS (Holy See) welcomed to the Agency the three States whose admission the Conference had unanimously approved.

61. He said that it had never been the intention of the Holy See to play the role of a technical expert in the Agency's activities but rather to exercise its spiritual authority; in connection with nuclear energy that implied a double role, monitory and hortatory. It was for that reason that his delegation had singled out two specific items from all the problems meriting attention, namely the nuclear arms race and the peaceful utilization of atomic energy. They did not appear as such on the agenda but were in fact at the root of all the items on the agenda. Unfortunately they were matters which could not be viewed very optimistically in present circumstances.

62. Nuclear energy had first appeared on the world scene as an exceptionally powerful means

<sup>[7]</sup> See document GC(XIX)/558.

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of destruction. The contribution it could make to world prosperity had only emerged later. In truth the peaceful utilization of nuclear energy had never been other than a secondary application of nuclear science and had very often been merely a screen for its military uses, a sort of a posteriori justification for research and industrial activities engaged in purely for military purposes. More than a decade had passed after the first destructive application of nuclear energy before the Agency had been founded, and one must ask oneself what the situation was like now, 20 years further on. In 1970 a treaty had come into force which was intended to check the proliferation of nuclear arms and to act at least as a symbolic bar to the continuation of the arms race. The following year the Holy See had acceded to that treaty not because it thought it could contribute very effectively to preventing proliferation but because it considered that any attempt to reduce nuclear terror was worthy of its support. Unfortunately, that treaty had not yet brought the hoped for Inits Final Declaration the NPT Review results. Conference had expressed its serious concern that the arms race, in particular the nuclear arms race, was continuing unabated. In those circumstances the impressive figures for the situation on 30 June 1975 concerning non-nuclear-weapon States which had signed, ratified or acceded to NPT could not do more than conceal from the uninitiated the fact that the most important among the non-nuclear-weapon States had still not seen their way to participate in the common efforts to curtail the spreading of nuclear danger, not to mention the fact that two members of the atomic club had not acceded to the Treaty either. IInder those circumstances NPT was doomed to remain a pretext for the unabated continuation of the arms race rather than becoming an effective means of checking it. Thus the Agency's safeguards system would finally turn out to be nothing more than an effective tool in the hand of a completely inefficient craftsman.

Turning to the problems currently associated 63. with the development of the peaceful utilization of atomic energy, he noted with concern that at a time when the Agency ought to be expanding its programmes for introducing nuclear power owing to the increase in the price of fossil fuels, one of the main problems facing it was to find the resources necessary for such expansion when, like several Member States, it was experiencing severe economic difficulties. In fact the situation was a vicious circle. The peaceful utilization of atomic energy was severely hampered mainly because of a scarcity of funds and that scarcity of funds was itself nothing more than a direct or indirect consequence of the nuclear arms race which was an ever-increasing drain on resources. The economic crisis currently facing the world was not due to a natural catastrophe but was caused by difficulties experienced by men in understanding and co-operating with each other, in fact simply in living together. The crisis did not mean that there was a lack of resources but merely that valuable resources were still being wasted.

64. The conclusion of the Conference on Security and Co-operation in Europe had undoubtedly marked

the decline of a system which had relied mainly on the deterrent force of the nuclear shield. If man wanted peace, he had to adapt to the changing world. At previous sessions of the General Conference his delegation had already made appeals to reason. It now exhorted all countries to seek a common goal - peace and security. All mankind should pursue the path of peace and justice, taking advantage of the great instrument which had been placed at its disposal, namely, atomic energy.

65. Mr. SETHNA (India) said his delegation welcomed the admission to the Agency of Qatar, the United Arab Emirates and the United Republic of Tanzania. India had friendly relations with those countries and looked forward to co-operating with them in the forums of the Agency. His delegation also wished to congratulate the Secretariat on its efforts in the past year, particularly in view of the increased demands on the Agency's services.

66. The annual report for 1974-75 focused attention on the problems faced by Member States, particularly the developing countries, in connection with the development of nuclear power. Having identified the problems of financing and shortage of trained manpower encountered by developing countries in implementing their nuclear programmes, the Agency had initiated a series of regional seminars and training courses. The Agency was also studying ways and means of meeting fuel cycle needs on a regional basis.

67. The Agency had a programme in hand for establishing safety codes and guides for nuclear power plants. His delegation hoped that the Agency would take account of the difficulties encountered by the developing countries when it drew up those documents; for that reason it felt that the working groups should include participants from the developing countries, particularly those with viable nuclear programmes.

68. He welcomed the priority accorded to research projects designed to improve the utilization of fertilizers and water resources for irrigation. Those were problems of vital importance to the developing countries.

69. The Indian Government attached great importance to PNE because of their potentially wide application in the exploitation of the country's natural resources and would be participating in the work of the Ad Hoc Advisory Group on PNE. It further considered the establishment of a PNErelated services unit in the Secretariat a useful step. The Agency should provide PNE services in the same non-discriminatory manner in which it provided all other services, in accordance with its statutory obligations. The results of studies on the peaceful nuclear explosion experiment conducted in India in May 1974 had been presented at the meeting of the technical committee on PNE which had met in Vienna in January 1975.

70. The Government of India supported the Agency's budget for 1976, although it was disturbed at the prospect of an almost 30% increase in the assessment on Member States. He was gratified that the Board of Governors had recommended a target of \$5.5 million in cash for voluntary contributions to the Agency's General Fund in 1976 and his Government was happy to announce that it would be contributing the equivalent of \$68 200 in Indian rupees.

71. India would continue to make available experts, fellowships etc. to help the Agency provide technical assistance to other developing countries. He hoped that the technical assistance programme would continue to be governed by the well-established principles of the Statute and that no attempts would be made to limit that important activity in any way.

With the expansion of nuclear power it was 72. natural that attention should be focused on safeguards problems. The Indian Government had contributed to the evolution of the principles governing the objectives, scope and application of the Agency's safeguards. The Agency was only discharging its statutory obligations when it applied safeguards and therefore the principles of the Statute should take precedence over extraneous considerations. Any arbitrary attempt to impose obligations which were not universally relevant or accepted would lead to a sense of discrimination which was not in the Agency's long-term interests. Extending the scope or content of the safeguards system to make it conform to principles relevant only in the context of NPT would be fraught with consequences which needed to be carefully considered. Another aspect which deserved consideration was the excessively large proportion of human and material resources devoted to safeguards. With the anticipated increase in the quantities of material to be placed under safeguards he was concerned at the increases in manpower and costs which seemed to follow more or less automatically. A basic change of approach, placing greater reliance on national systems, was therefore necessary.

73. India's nuclear power programme was in full swing. The Tarapur and Rajasthan nuclear power stations were providing the electricity required by the western and northern regions, and had played an important part during the conditions of drought prevailing in 1975. That fact had encouraged the Indian Government to persevere in its efforts in connection with the construction of the Madras and Narora reactors, both of which were progressing satisfactorily. A heavy water plant was expected to be operational at Baroda shortly.

74. The ISOMED project for the radiosterilization of medical products, which was being supported by UNDP and the Agency, was in progress and the Indian Government hoped it would be able to implement the same type of project in the eastern region.

75. But the most significant scientific and technological event of the year would be the completion of the variable energy cyclotron, which was due to be commissioned at the end of 1975. That would be a national facility built entirely in India, and the Indian Government was prepared to make its facilities available to countries in the region.

76. In conclusion, he hoped that the Agency would develop its programmes still further, more especially those affording potential economic benefits, and provide more funds for programmes intended for developing countries.

77. Mr. SITZLACK (German Democratic Republic) said he welcomed the decision of the Conference to extend membership of the Agency to Qatar, the United Arab Emirates and the United Republic of Tanzania. His delegation was also gratified that representatives of the Provisional Revolutionary Government of the Republic of South Viet-Nam were able to attend the General Conference for the first time.

The Conference was meeting at a time when 78. détente had become the main trend in international developments and the principles of peaceful coexistence were becoming the rule in relations between States with different social systems. Α significant example was the conclusion of the Conference on Security and Co-operation in Europe. Thirty years after the liberation of the European peoples by the Soviet Union and other States of the anti-Hitler coalition. the Conference had contributed to the establishment of a peaceful Europe. Nevertheless, the fact could not be overlooked that a great deal remained to be done in order to stop the arms race. As Mr. Erich Honecker, the First Secretary of the Central Committee of the Socialist Unity Party of the German Democratic Republic, had pointed out at the Conference on Security and Co-operation in Europe, Helsinki was not the final point, but the prelude to new initiatives. The goal of the German Democratic Republic was to banish war and aggression for ever. To attain that end, détente and work carried out on a solid foundation of collective security in Europe should be continued.

79. His country considered that political détente should be supported by activities of various kinds in connection with arms limitation. It welcomed the proposal by the Union of Soviet Socialist Republics that there ought to be an agreement on the general and complete banning of nuclear tests.

Among the international agreements that 80. helped to slow down the arms race, mention should be made of NPT, which was serving the cause of détente and international security. It had created the conditions necessary for international cooperation in the peaceful uses of atomic energy. The outcome of the NPT Review Conference had confirmed the fundamental purpose of the Treaty. Despite certain differences of opinion, it had demonstrated that NPT was a reality in international life and that it conformed to the interests of peoples and States. It should be pointed out that during the preparations for the meeting and at the Conference itself, a number of countries had acceded to NPT, among them the non-nuclearweapon States Members of EURATOM.

81. The Agency had had to solve problems of great political importance since the entry into force of NPT, problems which had been discussed at the NPT Review Conference, and it was a matter for satisfaction, his delegation felt, that the Agency had acquitted itself so well of that task. In establishing an international system of safeguards that did not violate the sovereign rights of States, it had created a powerful instrument for the implementation of NPT. The steadily growing activities of the Agency aimed at promoting the use of atomic energy for peaceful purposes activities designed to meet the requirements of developing countries in particular - offered clear proof that NPT was no obstacle to development. The use of PNE, already under examination by the Agency, was another problem worth mention-The German Democratic Republic attached ing. great importance to safeguards designed to prevent the diversion of nuclear materials to military purposes, and was therefore attentively following all steps taken by the Agency in the area of safeguards.

82. The German Democratic Republic wished to draw the Conference's attention to the tasks which devolved upon the Agency pursuant to the Final Declaration of the NPT Review Conference. They had a bearing in particular on enhancing the effectiveness and universality of safeguards, the preparation of recommendations concerning the physical protection of nuclear materials, a more thorough study of the problems associated with PNE, and so on.

83. Many countries now attached great importance to nuclear power as it would help to meet growing energy demands. Three reactors with an aggregate output of 950 MW(e) were already in operation in the German Democratic Republic, and preparations were under way for the construction of further units.

84. The Agency had chosen to emphasize the practical problems of utilizing nuclear energy. His country supported all activities aimed at providing greater safety in the nuclear industry and better protection of man and his environment. It was taking an active part in the programme under which safety codes and guides for nuclear facilities were to be prepared.

85. The rapid evolution of INIS was a matter for satisfaction, and the measures taken to extend that system were most welcome.

86. His country gave unstinting support to the Agency's technical assistance programme as a means of promoting the political and economic independence of developing countries. In 1975 it had made a contribution of 160 000 marks towards the Agency's technical assistance activities, and for 1976 it planned to raise its contribution to 200 000 marks. In that connection his delegation recalled that, in granting technical assistance on either a bilateral or a multilateral basis, donor countries and the Agency should consider whether the prospective recipient was a party to NPT or not. 87. He was worried by the increase in costs that had resulted from inflation and currency fluctuations in 1975. The situation was difficult, but his Government hoped that the Agency would succeed in mastering it in close co-operation with other international organizations.

88. As far as relations with other international organizations were concerned, the German Democratic Republic supported the applications for the conclusion of co-operation agreements with CMEA and EURATOM[8]. As a member of CMEA, his country particularly welcomed the co-operation agreement between CMEA and the Agency, which offered substantial advantages to both sides.

Referring to the deepening of co-operation 89. with the World Health Organization (WHO) and the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR), he said that his delegation would like to see the Agency persist in its efforts to secure an arrangement with WHO similar to that already existing with the Food and Agriculture Organization of the United Nations (FAO). The potential harmful effects of the use of nuclear energy could be countered by taking strict measures to ensure safety in facilities and to protect man and his environment; that meant all measures taken to prevent, detect and repair damage caused by radiation, namely, inspection of working areas, determination of exposure to internal and external radiation and so on. Such measures came within the scope of radiation protection and should be included in the programme of co-operation between the Agency and WHO. The German Democratic Republic was ready to lend its support to such co-operation.

90. In conclusion, he wished to thank the Director General for the manner in which he had always directed the Agency and to assure him of the full support of the German Democratic Republic. Nuclear energy could be a source of great wealth in the service of peace, health and prosperity throughout the world.

91. Mr. MEDINA (Philippines) congratulated the President on his election and welcomed Qatar, the United Arab Emirates and the United Republic of Tanzania to membership of the Agency.

92. Member States had placed great hopes in the present session of the General Conference. The NPT Review Conference had stressed the assistance that had to be given to developing countries in the field of nuclear energy and, at the seventh special session of the General Assembly of the United Nations, the international community had reaffirmed its determination to help the developing countries to overcome their economic difficulties. He hoped the Agency's Conference, too, would be responsive to the needs of those countries in relation to nuclear energy.

<sup>[8]</sup> The draft agreement with EURATOM is reproduced in document GC(XIX)/556, Annex.

The developing countries had suffered from 93. the increases in the price of oil; the Philippines, for example, had been obliged to spend \$700 million on petrol in 1974 and the expenditure would reach \$2000 million in 1980. Unfortunately, it was not the only country to suffer from that situation, as the trade deficit of the developing countries that produced no oil, standing at \$9000 million in 1973, had reached \$36 000 million in 1975. In order to overcome that difficulty the Philippines intended to use nuclear energy to cover 30% of the country's requirements in 1985. But, far from sparing the nuclear industry, inflation had affected that sector even more than others. The cost of an installed kilowatt had increased from \$525 at the end of 1973 to about \$825 in 1975. Periods of construction had become longer and the rates of interest had increased. The cost of nuclear fuel had tripled between 1973 and 1975.

94. All those factors made nuclear energy expensive and put it beyond the reach of most developing countries. It was not for the General Conference to name those responsible for such inflation, but rather to find means of helping the developing countries to finance their nuclear power programmes. The Director General had in the past invited the Member States to offer the developing countries favourable financial conditions. Some measures had already been taken, especially by the International Monetary Fund, but other solutions would have to be found. In that connection, the Philippines had proposed the creation of a special fund at the NPT Review Conference, which had invited the industrialized countries to take measures, especially of a financial nature, to assist developing countries party to NPT in the utilization of nuclear energy for peaceful purposes. His delegation had some suggestions to make in that connection; it could not but regret, however, that, although the industrialized countries had undertaken in Resolution 2626 (XXV) of the General Assembly to allot at least 1% of their gross national product to assistance to the developing countries, only five of the 17 countries members of the Organisation for Economic Co-operation and Development had attained or surpassed that goal.

95. Speaking about the measures the Agency might take to assist the developing countries in financing their nuclear power projects, he said that the Agency's technical assistance programme was an indispensable help to those countries but that its beneficial effects were vitiated by inflation. Compared with the \$80 000 million that the nuclear industry had allocated to the peaceful applications of atomic energy between 1970 and 1975 - a sum which was expected to increase to \$180 000 million for the years from 1975 to 1980 - the figure of \$5.5 million proposed as the target for the Agency's technical assistance in 1976 appeared little more than symbolic. The sums allotted to the technical assistance programme had always been insufficient and had never made it possible to respond to all requests. The target should be increased to at least \$6 million. His country was prepared to contribute to the General Fund a fraction of the target representing more than its base rate of assessment, and to provide three Type II fellowships. [9]

96. Having referred to the enormous destructive power of nuclear energy when used for military purposes, he stressed the value of the Agency's safeguards activities and expressed the hope that exporting countries would insist on the application of safeguards to the entire fuel cycle in importing countries. The Agency's safeguards activities would inevitably expand with the growth of nuclear commerce, and would compel the Agency to incur greater expenditures. However, a reasonable balance should be established between its expenditure on safeguards and its expenditure on technical assistance, for the former was rising more rapidly than the latter and there was no reason why developing countries should finance increased safeguards expenditure while suffering from the consequences of inflation in the nuclear industry. The arrangements for safeguards financing which had been approved by the General Conference in 1971[9] would have to be reviewed after 1975. Нe suggested that the Conference request the Board right away to establish a safeguards committee to consider the question and to review the Agency's Safeguards System (1965, as Provisionally Extended in 1966 and 1968).

97. His country appreciated the Agency's efforts to establish regional co-operation projects; it was party to an agreement on regional co-operation in nuclear science and technology and was currently participating in three regional projects. With the experience it had gained in Asia and the Far East, the Agency was now in a position to study the question of establishing a regional or multinational nuclear fuel cycle centre. The Philippines, grateful for the assistance received in 1975, was prepared to help in such a study.

98. He concluded by stating that the Philippines would continue to co-operate fully with the Agency with a view to enhancing the effectiveness of its work and improving the benefits that the developing countries would be able to secure from it.

99. Mr. ALER (Sweden) pointed out that the share of nuclear energy in the overall electricity production of many countries had been increasing more and more rapidly in recent years. In Sweden, for example, nuclear reactors now in operation would at full power account for about 15% of the electricity produced.

100. Such developments enhanced even more the importance of the role being played by the Agency, since it was the principal instrument for international co-operation in the nuclear field. The Agency played a major role in the establishment of an effective, world-wide system of safeguards. Since the previous session of the General Conference many States had ratified NPT and the number of safeguards agreements with the Agency had increased. However, no progress had been made in the negotiations on disarmament. Concrete undertakings by the nuclear-weapon States were necessary in order to prevent a further pro-

<sup>9]</sup> By Resolution GC(XV)/RES/283.

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liferation of nuclear weapons. Many of the recommendations made by the NPT Review Conference were very relevant to the orientation of the Agency's activities, especially in safeguards, Τn particular, it would be useful to apply safeguards to all the peaceful nuclear activities in importing countries which had not acceded to NPT. The Agency should also make concrete recommendations for the physical protection of nuclear material in use, storage and transit. It had already studied the establishment of regional or multinational nuclear fuel cycle centres, which would offer the dual advantage of enabling many countries to gain access to nuclear power and facilitating physical protection and the application of Agency safeguards. Closer international co-operation was also essential if other problems connected with nuclear safety, environmental effects, waste management and the transport of nuclear material were to be solved.

101. The Agency ought no longer to concern itself so much with the promotion of nuclear science, but should concentrate more on the regulation of activities in the nuclear field. Many national organizations had already modified their programmes along such lines and it was reasonable that the Agency should do the same. Thanks to the flexibility of its recruitment policy, the Agency should be able to adapt its programmes without increasing its staff or its budget.

102. With regard to regulatory activities, the International Conference on Nuclear Power and its Fuel Cycle, planned for 1977, ought to focus on the problems faced by countries which were implementing nuclear power programmes.

103. The Agency also had an important task to perform in connection with technical assistance

and training. Sweden would be making a voluntary contribution of US \$74 250 to the General Fund for 1976, but its main contribution would be made through the Swedish International Development Authority (SIDA). In 1974, SIDA had contributed about US \$602 000 to the Agency. The Swedish Government considered that the Agency's technical assistance projects should be financed mainly through UNDP. Sweden - which had increased its contribution to UNDP in 1975 to about \$46 million was one of the largest financial contributors to the Agency's technical assistance activities, an indication of the importance which it attached to that work.

104. Sweden's nuclear programme was advancing rapidly. Five power reactors were already in operation and eight more were to go into service by 1985. Moreover, since the previous year Swedish industry had received a further export order for a reactor and industrial preparations for the exploitation of the vast Swedish uranium deposits had been concluded.

105. He recalled that, during the previous session of the Conference, the Swedish delegation had raised the question of the designation of Members to the Board of Governors. [10] The Statute provided for the designation of the nine Member States most advanced in the technology of atomic energy including the production of source materials. It was difficult not to count Sweden among those nine. Consultations had taken place with a view to solving the problem, and the Swedish Government hoped that the Board would arrive at practical conclusions in good time before the 1976 designations took place.

• The meeting rose at 5, 55 p.m.