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on Thursday, 22 September 1966, at 3.5 p.m.

President: Mr. SARASIN (Thailand)

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* GC(X)/343.

GENERAL DEBATE AND REPORT OF THE BOARD OF GOVERNORS FOR 1965 - 66 (GC(X)/330, 341) (continued)

1. Mr. NEUMANN (Czechoslovakia) said that, like previous speakers who had reviewed the Agency's activity during its period of existence, he wished to refer only to certain aspects of that activity. He did not intend in his brief statement to go into detail on individual activities, but would limit himself to a number of observations.

2. In 1963 the Agency had set about planning its future activity and had developed the long-term programme which had been approved at the seventh General Conference 1). The Czechoslovak Socialist Republic was one of those Member States which welcomed the fact that in the past four years the Agency had increased the amount of work devoted to that application of atomic energy for peaceful purposes where progress was greatest, namely nuclear power. The Agency's work with regard to the use of radioisotopes and radiation sources in science, technology, industry, agriculture etc. was also very useful, as was its work on the processing and disposal of radioactive wastes, safe handling of radioactive materials and health and

1) INFCIRC/50.

safety. A number of scientific symposia and meetings organized by the Agency on those subjects had been of especially high quality, and their recommendations were of great importance to individual Member States. The co-ordination of research and the preparation of textbooks and regulations on various aspects of atomic energy, especially nuclear safety, were also very important. There was no need to emphasize the importance of the International Conferences on the Peaceful Uses of Atomic Energy held at Geneva. The Agency's work in the field of scientific and technical information was also valuable. His delegation approved the Agency's efforts to co-ordinate its activity with other international organizations in sectors involving problems which were the Agency's concern. The training of personnel and the provision of equipment were also of great importance to the Member States, especially the developing countries.

3. In some branches of the peaceful use of atomic energy, Czechoslovak scientists and engineers had attained considerable success. Delegates were no doubt aware that Czechoslovakia was planning a second atomic power station. His country intended, in the future as in the past, to employ heavy-water converters.

4. It was also proposed to study in greater detail problems of the complex fuel cycle. Noteworthy results had also been obtained in radioactive waste disposal.

5. Czechoslovakia was paying great attention to training young personnel, principally in its own educational institutions and by means of international co-operation.

6. The further development of the peaceful uses of atomic energy in Czechoslovakia definitely required more extensive international co-operation. Czechosloyakia, as one of the Member States of the Agency, had always striven to ensure that the Agency, as a world centre in the peaceful use of atomic energy, should work in a spirit of collaboration between nations, without which it was impossible to lay the other foundations of peace. It was that constructive attitude which determined the views of his delegation on the activity of the Agency and its organs.

7. Czechoslovak scientists played an active part in the Agency's symposia and meetings. Czechoslovakia had already organized a number of meetings and training courses for the Agency. It also took part in promoting the exchange of scientific and technical information, and provided the Agency with information, material, films, reports of research, documentation, etc.

8. Czechoslovakia placed its experts and instructors at the Agency's disposal for work in the developing countries, and provided annually five long-term fellowships for study in Czechoslovak educational institutes and four fellowships for study and practical work in the research departments of the Czechoslovak Academy of Sciences. Czechoslovak research institutes played an active part in the Agency's programme of research contracts. On the other hand, his delegation was deeply grateful for the Agency's assistance in training young scientific workers. Czechoslovak research institutes made considerable use of the Agency's Library and film-loan service.

9. His Government would continue to play an active part in the Agency's work. For 1967 it again proposed that a scientific conference or symposium, or a training course, should be held in Czechoslovakia, again offered five long-term and four short-term fellowships, and if necessary would provide experts and inspectors for work in the developing countries. It would make a voluntary contribution of 100 000 crowns towards the implementation of the Agency's technical assistance programme for 1967.

10. Czechoslovakia had had considerable success in developing and producing steel tanks for atomic power stations. In October 1966 a meeting to discuss the inspection of reactor tanks was to be held in Pilsen. The subject was a very important one which could not be decided upon by one State, and it would therefore be of great assistance to Member States if the Agency were to co-ordinate further research. There was in Pilsen special equipment, including a model reactor tank and a tensile testing machine of 8000 tons capacity, which could be used to test large samples of material. Czechoslovakia was prepared to discuss the various possibilities and forms of co-operation in that regard, and the possibility of the Agency and its Member States using the equipment concerned.

11. Needless to say, the Agency's activities and functions also had important political aspects; its purpose was to help promote international security. However, it could not successfully fulfil that mission at a time when international tension was increasing, in particular as a result of the growing aggression against the Vietnamese people and its threatened consequences. Successful action by the Agency to promote international security would help to prevent certain States not possessing atomic weapons, above all the Federal Republic of Germany, from obtaining, either directly or indirectly, access to nuclear arms.

12. Every year the Agency welcomed new Members from among the newly independent, developing countries; however, he could not understand why, up to the present, membership of the Agency had

been refused to a number of States, such as, for example, the German Democratic Republic, whose high level of development in nuclear science and technology was generally acknowledged. The non-participation in the United Nations and the Agency of the People's Republic of China, which was a nuclear Power, meant that any idea of international control of nuclear weapons must be illusory.

13. Czechoslovakia was aware of the responsibility of a Member of the Agency for the fulfilment of the organization's tasks, and therefore made every effort to further peaceful co-existence between nations, and supported all proposals for the creation of denuclearized zones and for the non-proliferation of nuclear weapons; it accordingly gave its full support to the proposal made by the delegate from the Polish People's Republic 2).

14. His Government wished to facilitate a solution of the important problem facing the Agency of creating a safeguards system which would make it impossible to use atomic energy for military purposes, and was prepared to place its atomic plants, including nuclear power stations, under Agency safeguards. However, it had to take into account its own safety, and could therefore only make such an offer on condition that the Federal Republic of Germany also submitted its nuclear facilities to safeguards.

15. In that connection, he wished to draw the attention of the General Conference to the fact that the Government of the German Democratic Republic had addressed to the President of the Conference a statement on matters relating to the Agency's activities; and he hoped that the President would find it possible to make the contents of that declaration known to the delegates.

16. In conclusion, he assured the General Conference that Czechoslovakia regarded the Agency as an international organization whose importance in the world was increasing; his Government would continue to support its activities, as far as lay within its power, in the interests of peaceful scientific, economic and social development throughout the world.

17. Mr. FAROLAN (Philippines) said he would first like to convey to the Conference, on the memorable occasion of its tenth anniversary, the warm greetings of the President, Government and people of the Philippines. His country shared the deep satisfaction of other delegations with the proud record of the Agency since its establishment and, as a mark of appreciation for the many benefits it had received, its President had included in the Philippine delegation, Mrs. Marcos, his mother, in order that he might be present at least in spirit.

18. His delegation would like to welcome the new States whose membership of the Agency had just been approved. The continuing growth in the Agency's membership bore witness to the important role it was playing in fostering the development of the peaceful uses of atomic energy, which, in many developing countries like his own, kindled hopes for the betterment of their people.

19. The Director General and the Secretariat were to be commended on the progress achieved in some areas of work during the past year. Despite substantial efforts, however, there was much more that should be done, particularly with regard to the expansion of the technical assistance programme and the extension to all Member States, great and small alike, of the control and safeguards system developed by the Agency to ensure the use of atomic energy for peaceful purposes only. To the developing Member States, technical assistance in the form of expert advice, fellowships and equipment might well be the deciding factor for pursuing or abandoning a worth-while project, in view of the fierce competition among scientific and technological projects for the scarce capital resources available.

20. The Agency was of course handicapped in its work by insufficiency of funds. Requests for technical assistance were growing year by year, whereas the resources to meet those needs were tending to get less. Accordingly, the major problem facing the Conference was to find ways of providing the Agency with adequate means for its technical assistance work. His delegation was prepared to support any measure that would stabilize or increase the funds for that purpose. It would appeal to the advanced and richer nations to increase their voluntary contributions to the Operational Budget, if possible at least to the level of their assessments under the Regular Budget. The end-result would be beneficial to all parties, for there could be no sustained progress or tranquility in the world so long as millions of people continued to be underprivileged, and hence prone to discontent and rebellion. The Philippines Government would make a voluntary contribution to the Agency's General Fund for 1966 in the full amount of its assessment under the Regular Budget.

21. The pre-investment study of nuclear power in the Philippines — a United Nations Special Fund project for which the Agency was the executing agency — had been satisfactorily completed. The project was one that should be of importance to the world economy in general and thanks were due to the Agency itself and the many experts and

2) GC(X)/OR.103, para 56.

engineers, coming from many countries, that had taken part in the work.

22. As a result of the study, the case for nuclear power in the Philippines appeared to be clearly established, particularly in the case of Luzon Island. The optimum power expansion programme that had emerged called for the construction of three nuclear plants in the years ahead to give a total capacity of 1000 MW during the five-year period 1971-75. The estimated capital expenditure was about $183 million, an amount that was 20% higher than the cost of the alternative conventional power programme. On the other hand, the extra initial investment was expected to be recovered out of annual fuel savings by 1978-79, and thereafter net operating savings of $14 million per year were anticipated.

23. The completed study, by demonstrating the economic feasibility of nuclear power, had opened up the possibility of introducing nuclear power, particularly in the smaller countries. The higher economic planning bodies and utility services in his country were at the moment engaged in examining the findings of the study with a view to implementing the recommendations. It was hoped that at the appropriate time the Agency would provide further technical assistance to translate the recommendations into reality. The report on the study would be made available to any interested country; in fact, an opportunity would be given for detailed discussion and exchange of views on it at the study group meeting on nuclear power for developing countries that was scheduled to be held in Manila in October 1966.

24. On previous occasions, his Government had commended the establishment of the Joint FAO/IAEA Division of Atomic Energy in Agriculture. That Division was putting forward a proposal to the United Nations Development Programme for a five-year advanced regional project on the use of isotopes and radiation in research for increasing rice productivity, and the Philippines was joining with Pakistan, Thailand and Ceylon in supporting that proposal.

25. Scientific and technological efforts to increase productivity in food crops were undoubtedly tremendous in scope, but the resultant increase in yields would have to be at least higher than the rate of population growth in regions where the diet was primarily grain-based. Undoubtedly there was enough technical capacity available to fulfil the hope many countries held that an increase in production sufficient to meet the growing demands for food could be obtained. At same time, all known methods would have to be made use of, including those designed to promote a more enlightened approach to farming.

26. The Philippines Government was also acting as host in November 1966 to the FAO/IAEA inter-regional training course on the use of radioisotopes in soil and plant investigation. He availed himself of the opportunity to extend a most cordial welcome to the scientific workers who would be taking part.

27. The joint training and research programme based on the use of a neutron crystal spectrometer in conjunction with the Philippines research reactor, which was being undertaken under the trilateral agreement between the Agency, India and the Philippines 3), had completed its first year of work and had already produced specific results, not only as a scientific undertaking but in fostering closer relations and active co-operation among the scientists of the region. A neutron spectrometer, designed and built under the expert advice of the Indian scientists assigned to the project, had been put into use in January 1966. The completion of its electronic components and its fuller utilization in local research work would be assisted as a result of a research contract recently awarded by the Agency for the study of the dynamic structure of solids by neutron spectrometry. His country was also grateful to the Agency for its help in securing supplies of fuel for its No. 1 research reactor; the United States had generously donated the fuel, which ensured the continuation of the Philippines research programme, at any rate to the end of 1967.

28. He hoped the Agency would continue to understand the needs of the region and support activities for strengthening regional collaboration. At the same time, he would appeal for more generous financial support for the Agency's work, and urge that every endeavour be made to safeguard the Agency from involvement in international disputes arising out of different political, economic and social systems. It would be a tragedy if mutual suspicions and rivalries were allowed to impair the magnificent edifice the Agency had built up to serve mankind. The Philippines would continue to co-operate with the Agency to the fullest extent possible.

29. Mr. TIMBS (Australia) said he would first like to congratulate Singapore and Uganda on their admission to membership of the Agency.

30. Australia had been the venue in 1966 for the highly successful Agency study group meeting on research reactor utilization; the participants had appreciated the opportunity to discuss problems of mutual interest with other scientists from the region. During the past year, Australian experts had taken

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3) INFCIRC/56.

part in a number of the Agency's expert panels. Much useful work was being done by the Agency in that respect in setting standards and disseminating new techniques; Australia fully supported the activities in question.

31. The Agency deserved special commendation for establishing the International Nuclear Data Committee. Improved access to nuclear data and comparison of the fundamental work being done in various countries would greatly facilitate the work in reactor calculations and the determination of reactor dynamics for a wide range of possible reactor situations. It was hoped that co-operation in that field would expand and lead to greater progress in reactor physics in all Member States.

32. Australia was keenly interested in the potentially very useful work that was being done on the use of radiation for food preservation and grain disinfestation. It was itself engaged in such research, and looked forward to comparing results with those coming from Agency projects. Australia had been glad to participate in the joint FAO/IAEA symposium on food irradiation held at Karlsruhe in June 1966.

33. The various safety standards established by the Agency had been a most useful guide and, in the case of the Regulations for the Safe Transport of Radioactive Materials [4], a most significant aid to the movement of such materials. There was some evidence that, happily, the obstacles to transport of radioactive materials, such as unreasonably high freight rates, unrealistic insurance opportunities, and restriction on movements within ports, were being reduced. The United Arab Republic had given an enlightened lead in the matter in respect of transport through the Suez Canal.

34. In the past the Agency had tended to be somewhat ambitious in its programmes of technical assistance. Now that the use of nuclear power was growing enormously, the need for technical assistance would expand correspondingly. Despite many pleas, voluntary contributions to the Agency's General Fund had never met the target set by the General Conference; indeed, as the figures showed, the Agency had been faced with a succession of falling contributions.

35. In his opinion, that response was not unrelated to the Agency's approach to the problem of technical assistance. It should not attempt more than it could afford, and only programmes with a reasonable chance of early completion within the means available to the Agency should be undertaken. A definite limit should be set, both in time and in financial support, to any commitment to international or regional centres or projects. With regard to regional centres, the Agency's role should be limited normally to helping in their establishment and encouraging their operation, except in the case of facilities established in less-developed countries. Any large permanent commitment to an individual centre should be avoided, particularly when it was established in an advanced country, since that might lead to the reduction of assistance in the form of fellowships or the abandonment of more worth-while technical assistance projects. Once the Agency accepted that point of view, most countries would, he believed, look more sympathetically on appeals for increased coluntary contributions.

36. The International Centre for Theoretical Physics at Trieste had justified most of the hopes placed in it. The staff, he understood, was thoroughly competent and good work was being done. The Centre was providing valuable help for a few experts operating in a narrow field of theoretical and plasma physics, but its maintenance costs would be increasingly burdensome. In his delegation's view, a time-limit should be set beyond which the Agency should provide assistance to the Centre only through the allocation of fellowships and the sponsorship of seminars, with no direct contribution towards capital and operating expenditure. The emphasis on plasma physics seemed to have little bearing on the real needs of the countries concerned and the funds being expended on the Centre might better be applied in providing fellowships in other equally important branches of atomic energy for study at national institutes already in existence. In that way the Agency would broaden its field of training. Those considerations did not apply to the Laboratory at Seibersdorf, although any temptation towards expansion there should be resisted.

37. He would commend to the Conference's attention the Plowshare Program of the United States Atomic Energy Commission, whereby techniques for the use of nuclear explosives for peaceful purposes were being developed and made generally available. The success of that programme held great promise for the undertaking of immense civil engineering and other projects of major economic value to Member States. It was to be hoped that the current moves towards an agreement for the non-proliferation of nuclear weapons would not further inhibit the use of those techniques. In that context, the United States representative had suggested in the United Nations Eighteen-Nation Committee on Disarmament that States possessing nuclear weapons should make available to other States nuclear-explosive services for peaceful applications and that the detonations in question should be performed under appropriate international supervision, with the nuclear device remaining in the

4) STI/PUB/97, Safety Series No. 6.

custody and under the control of the State performing the service. In the same Committee, the United Kingdom representative had taken the stand that, in the process of preventing the spread of nuclear weapons, care should be taken to avoid the danger of depriving anyone of the benefits that might become available through the peaceful uses of nuclear energy, including the use of nuclear explosions for peaceful purposes. Australia believed that the difficulties in the way of applying those new techniques were largely technical and could with effort be overcome so that the world might enjoy the benefits to be derived therefrom.

38. Earlier in the year, Australia had reserved its position on the extension of the Agency's safeguards system to fuel processing plants on the ground that approval by the Board of Governors of that step had been given with undue haste. The opportunity to examine the matter in detail had led to a change of attitude and Australia no longer objected to the extension in question. At present the safeguards system enjoyed minimal application; its ultimate success could be ensured only by willing acceptance and co-operation on the part of all States, and that objective would not be helped by hasty consideration of proposals, however worthy in themselves.

39. Australia had joined with the United States in inviting the Agency to administer the safeguards provisions of their joint agreement for co-operation in the peaceful uses of atomic energy and hoped that that action would contribute towards developing further the framework within which the Agency's safeguards system might expand.

40. The most significant development at present in the Australian atomic energy programme was the shift of emphasis towards a study of power reactor systems using natural uranium as fuel and heavy water as moderator. Interest was still being maintained, however, in high-temperature gas-cooled reactors, on which a considerable amount of research had been done. Australia continued to produce a wide variety of radioisotopes as well as cobalt of high specific activity, for radiotherapy and other uses. The isotopes were being used to an increasing extent for medical, industrial and agricultural purposes within Australia and throughout the Asian and Pacific region.

41. An increasing number of scientitsts and technologists from Asian nations had been attending the regular courses given by the Australian School of Nuclear Technology. The experience of working with colleagues from many different countries would help to promote harmony and development in the region.

42. In conclusion, he would like to say how much Australia had appreciated the support and assistance given by the Director General and his staff during the past year. For its part, Australia had done its best to further the work of the Agency. His delegation supported the adoption of the annual report of the Board of Governors to the General Conference for 1965-66 [GC(X)/330 and 341].

43. Mr. MOROKHOV (Union of Soviet Socialist Republics) read the following message from the Chairman of the Council of Ministers of the Union of Soviet Socialist Republics to the tenth (anniversary) session of the Agency's General Conference:

> "On behalf of the Soviet Government I extend my greetings and best wishes for the success of the tenth regular session of the General Conference of the International Atomic Energy Agency.
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> "The International Atomic Energy Agency, which was established ten years ago, is called upon, under the terms of its Statute. to ' . . . . seek to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world. '
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> "The Soviet Government attaches great importance to international co-operation in the field of the peaceful utilization of atomic energy, believing that such co-operation contributes to the acceleration of economic and scientific development for the benefit of all mankind. The Soviet Union, the first country to embark upon the use of the energy of the atomic nucleus for constructive purposes, continues to pay great attention to achieving the fullest development of this important branch of the national economy. The Soviet Government is likewise making every effort to extend co-operation with other countries in the peaceful utilization of atomic energy for the progress of mankind.
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> "It is our belief that the International Atomic Energy can play a substantial role in the developmentt of such co-operation. It is important only that this co-operation be based on the principle of equality of rights and regard for the interests of all countries wishing to participate therein.
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> "In stressing the importance of the utilization of the atom in the interests of peace and human prosperity, one cannot ignore the fact that this is being hampered to a considerable extent by the fact that gigantic resources are still being expended on using this great achievement of the human intellect not for creative purposes but for destruction and annihilation.

"The Soviet Government strongly advocates the prohibition of nuclear weapons and the destruction of all stockpiles of such weapons. The power of the atom must be used exclusively for peaceful purposes. The problem of achieving prohibition of nuclear weapons is a particularly vital one at present, when the American militarists are extending their aggressive war in Viet-Nam and when peace is seriously endangered by the aggressive forces of the United States of America.

"The problem of preventing the further spread of nuclear weapons is also now becoming extremely acute. It is essential that those who are striving to obtain nuclear weapons and are openly demanding the revision of the frontiers that have been established in Europe should be denied access to such weapons. The achievement of agreement on the banning of underground testing of nuclear weapons would also be of great significance. There is no doubt that the fulfilment of these noble tasks might open up new possibilities for an even wider development of international co-operation in the field of the peaceful uses of atomic energy.

"In conclusion, permit me again to wish those taking part in the tenth regular session of the General Conference of the International Atomic Energy Agency every success in solving the important problems which the Agency has to face."

44. The Soviet Union had been the first to come out in favour of prohibiting without reserve the military uses of atomic energy and directing its development exclusively along peaceful paths. At the time of the Agency's establishment, the Soviet Union had urged that the new organization should be given, first and foremost, the task of promoting a broad use of atomic energy in the interests of peace, health and prosperity; it had believed that international co-operation in the harnessing of the peaceful atom must aim not only at putting the enormous energy reserves of the atomic nucleus at the disposal of mankind, but also at helping the young developing countries of Asia, Africa and Latin America to acquire the experience of the more advanced countries, and to secure appropriate training for their own scientists.

45. Such co-operation had to be based on equality of rights and respect for the interests of all States wishing to take part. It was inadmissible that only a few countries should enjoy the benefits of the peaceful uses of atomic energy while others were deprived of them simply because the age-long domination of colonial Powers had held up their economic development.

46. The growth in the Agency's membership, particularly among the developing countries, was something to be welcomed. The fact that the Agency had nearly doubled its membership by admitting newcomers from among the young States of Asia, Africa and Latin America suggested that its international authority was growing.

47. The Agency had achieved certain definite results by paving the way for international co-operation and promoting the development of nuclear power and nuclear science in individual countries; but more could have been done. Efforts were in fact being made to hinder effective international co-operation in the peaceful uses of atomic energy and to impose upon the Agency, in violation of its Statute, a type of activity that had nothing to do with the aims and tasks set forth in the Statute.

48. The Agency had not yet become a universal organization. Some States were being discriminated against, in violation of the Statute, and denied an opportunity to take part in the Agency's work. An example of what he meant could be seen in the fact that the Federal Republic of Germany was a Member of the Agency whereas the German Democratic Republic — an independent and sovereign State — was not.

49. It was fair to point out that the Agency did not exist in a vacuum, and that the course of international affairs could not but affect its activities. The incessant interference of imperialist and colonialist Powers in the internal affairs of States and peoples was at present the main source of growing international tension; and that tension paralysed the normal evolution of co-operation in all spheres of international relations, including the peaceful utilization of atomic energy.

50. The most obvious case in point was the cynical and growing aggression of the United States of America against the people of Viet-Nam, which was bound to cause profound alarm throughout the world. That was why the Soviet Union, along with many other countries, urged and would continue to urge an immediate cessation of the aggressive activities of the American militarists in South-east Asia, the withdrawal of all American troops from that region, and a settlement of the Viet-Nam dispute on the basis of the Geneva agreements concluded in 1954, as had been proposed by the Government of the Democratic Republic of Viet-Nam.

51. No one could fail to see that the aggression in South-east Asia must inevitably intensify the armaments race and thereby foster the production and perfection of the tools of nuclear destruction. It constituted a serious obstacle to any intense, widespread use of atomic energy for peaceful pur-

poses. Clearly, then, it was important to solve the problem of nuclear disarmament and prevent any further spread of nuclear weapons to ensure that atomic energy would be used only for peaceful purposes. If that goal was to be achieved, the production and use of nuclear weapons would have to be prohibited and all accumulated stocks destroyed. Countries where aggressive, revanchist tendencies prevailed — and he had in mind particularly the Federal Republic of Germany — must be given no access to nuclear arms, for otherwise the world might be plunged into another world war.

52. The Soviet Union would continue to do everything in its power to settle the question of disarmament and strengthen peace. A tangible example of the Soviet Union's peaceful policies could be seen in its enormous programme for the peaceful utilization of atomic energy, and in the importance it attached to the benefits which atomic energy could bring to the national economy.

53. The most important application of atomic energy was in electric power generation. The world's first industrial-type nuclear power station had already been in regular operation for twelve years, and the Soviet Union at present had a large programme under way aimed at developing new and more economic nuclear power stations.

54. Work under that programme included, for example, the start-up of the first unit of the Beloyarsk Atomic Power Station, incorporating nuclear steam superheating, with a power rating of 100 MW. The finishing touches were being put on a second unit belonging to the same station, also incorporating nuclear steam superheating, with a rating of 200 MW. High steam parameters made it possible to achieve increased thermodynamic efficiency in the first Rankine cycle. Thus the problem of steam superheating — one of the most important from the standpoint of economic efficiency — was receiving serious attention in the Soviet Union.

55. Another important development affecting the economics of nuclear power stations was the enlargement of reactors, i.e. the installation of greater power in individual units. The power rating of the first unit of the Voronezh Power Station, which had begun operation in 1964, was 210 MW, while a second unit at present under construction was designed to produce 400 MW. A very substantial reduction in the prime cost of electric power was expected from such reactors, viz. a cost per kilowatt-hour close to that obtainable with coal-fired power stations in the same part of the country.

56. Even so, the structural and technological possibilities of increasing the electrical output per single unit were still far from exhausted. At present, design studies were being carried out on reactors that would produce between 600 and 1000 MW per unit.

57. However, a broad nuclear power programme could not be based exclusively on the simplest thermal reactors, which used only a small proportion of the uranium (^{235}U) produced.

58. For that reason more advanced reactors, using fast-neutron fission, would be built in the years to come. The Soviet Union was already known as an enthusiastic proponent of fast reactors. The largest fast reactor designed so far, with a power output of 350 MW from a single unit, was under construction in the Soviet Union. It was intended that that reactor, apart from providing the answer to the present desalination problem, should also serve as the starting-point for a large fast-reactor construction programme.

59. New large atomic power stations would be built in the Soviet Union during the years to come. The aggregate output of the plants already in operation amounted to about 1000 MW, and it was expected that in the next few years the figure would increase substantially.

60. Among other important problems there was, for example, the use of atomic energy as a tool for opening up the universe. Research work carried out in the Soviet Union, for example the experiments performed with the "Romashka" laboratory installation (incorporating a fast reactor and providing direct conversion of nuclear to electrical energy), had revealed the great potential of nuclear equipment for such work. The installation in question had been operated in a sealed chamber for more than 14 000 hours at a stretch.

61. There were good prospects for the use of atomic energy in large transport units. The Soviet icebreaker "Lenin" was the first of a series of nuclear ships to be used for peaceful purposes. The Soviet Union planned the construction of still other nuclear-powered icebreakers which would be of large capacity and highly economical.

62. Year by year the use of radioactive isotopes and radiation was being extended in industry, medicine, agriculture and research. Consequently, ways of using isotopes, organizing their supply and arriving at relevant international standards and regulations should be worked out by all Members of the Agency to their mutual advantage.

63. The basis for all achievements in the uses of atomic energy for peaceful purposes was fundamental theoretical and experimental research in nuclear physics and atomic energy.

64. At present the Soviet Union was constructing a vast 70-GeV proton accelerator, which would enable scientists to delve yet deeper into the structure of the atomic nucleus. It was expected that scientists from many countries in the world would take part in the work on the accelerator.

65. The Soviet Union had earlier called for international co-operation in research on controlled thermonuclear fusion with a view to making thermonuclear energy available for peaceful purposes. The Soviet Union intended to extend its activities in that field. Data on the results obtained were being widely disseminated, notably in the journal *Nuclear Fusion* published by the Agency.

66. In 1966 work had finished on a new, 104-element periodic table. Extension of the periodic table to cover additional heavy elements was a worthy contribution by scientists from the socialist countries to man's knowledge of matter.

67. Co-operation between the Soviet Union and other countries and joint activity among the socialist countries which were members of the Council for Mutual Economic Assistance (COMECON), were developing successfully in matters relating to the peaceful uses of atomic energy.

68. COMECON's standing committee on the peaceful uses of atomic energy had prepared a long-term plan for the co-ordination of research during the period 1966-1970, in accordance with which each country would deal with subjects which would supplement the plans of other countries and exclude duplication as far as practicable. In addition to the use of atomic energy for the generation of electric and thermal power, the joint activity of the socialist countries in the next few years would be aimed also at further development of work on the use of isotopes and nuclear radiation in the national economy. For that work a broad exchange of scientific and economic information was anticipated.

69. The growth of nuclear power and the increasingly extensive use of radioisotopes in all spheres of the national economies of countries which were members of COMECON would bring about a considerable increase in radioactive waste. Therefore, in the next few years, great attention would be paid to solving problems concerning the disposal and reliable storage of such waste and the inter-related co-ordination of scientific and technical research in that field.

70. Co-operation between the Soviet Union and other countries was expanding. In October 1965 a co-operation agreement had been concluded with Italy. On the basis of agreements concluded with the United Kingdom, France and other countries an extensive programme was now under way for exchange visits by delegations of experts and also for the exchange, for longer periods (3-12 months), of individual scientists concerned with nuclear physics, high-energy physics and controlled thermonuclear reactions. An extensive exchange of scientific literature and information was also being carried out with those countries.

71. The Soviet Union was actively concerned with the provision of technical assistance to developing countries through the Agency. For example, the Board of Governors had decided to transfer Soviet equipment to Pakistan and Burma to establish radiological centres in those countries. The Soviet Union and Pakistan were at present completing negotations on deliveries of the equipment.

72. Quite recently a group of experts from developing countries, accompanied by two Agency officials, had made a month's tour of the Soviet Union to study the use of radioisotopes in industry.

73. The Soviet Union, attaching importance to the provision of technical assistance through the Agency, had now decided to make a voluntary contribution of 100 000 roubles in its national currency to the Agency's Operational Budget for technical assistance purposes. That money could be used for placing orders in the Soviet Union for the supply of equipment, instruments and materials to meet requirements of developing Member States in connection with projects under the technical assistance programme. In addition, the Soviet Union had provided 20 fellowships to train scientific workers from developing countries in fields in which the Agency specialized.

74. The Soviet Union was taking part in virtually all of the Agency's activities. Recently the Agency had held a number of big international conferences on topical questions relating to atomic science and technology, in which Soviet scientists had played an active part. Eminent Soviet scientists had travelled to Trieste to give lectures and do research. A large amount of scientific data on nuclear constants had been sent from Soviet institutes and laboratories to the International Nuclear Data Committee. In 1966 two Agency panels had been organized in the Soviet Union. The Soviet Union would continue to afford hospitality to scientists and specialists from Member States of the Agency and to make facilities available for implementing Agency activities in the Soviet Union. It was agreeable to holding one or two Agency symposia there in 1967.

75. The Agency's Programme for 1967-68 [5], which had been submitted to the General Conference, reflected the wide range of the Agency's tasks.

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5) GC(X)/332.

On the whole, that programme was sufficiently comprehensive, and the Soviet Union was prepared to support it.

76. Each year the Agency was increasingly occupied with questions of safeguards. The basic document on the subject had been reviewed, and work had been done on expanding the existing system of safeguards and extending its provisions to fuel reprocessing plants. The Soviet Union supported that decision since it was absolutely logical that safeguards, as the need arose, should embrace the whole fuel cycle. In so doing, the Soviet Union proceeded on the assumption that the system of safeguards could to some extent make the proliferation of nuclear weapons more difficult.

77. However, the capacity of safeguards to prevent the proliferation of nuclear weapons should not be over-estimated. The Agency's safeguards could not by themselves block all access to nuclear weapons. That aim could be achieved by concluding a treaty which would bar access to nuclear weapons both directly and indirectly. Thus, the Agency's control functions played an important but generally auxiliary role in ensuring broad co-operation in all questions concerning the peaceful uses of atomic energy with which the Agency was concerned.

78. As shown by the Board's annual report to the General Conference, the Agency's Safeguards System (1965) 6) applied, or would apply in the near future, to 54 reactors in 23 countries, and the total capacity of reactor installations under safeguards was 2485 MW(th).

79. At the same time, it was an absolutely abnormal situation that so-called regional systems of safeguards should in actual fact, as in the case of the European Atomic Energy Community (EURATOM), be contributing to the creation of nuclear weapons in West Germany.

80. The Soviet Union welcomed the action of the Polish People's Republic and the Czechoslovak Socialist Republic[7] which had expressed readiness to place their nuclear installations under Agency safeguards. As an act of reciprocity, the Western Powers should of course place under Agency safeguards nuclear installations in non-nuclear countries belonging to the North Atlantic Treaty Organization, particularly the Federal Republic of Germany. Such an approach could introduce an essentially new element into the Agency's work relating to safeguards. The statement which the socialist States had made that day demonstrated their goodwill and their sincere desire that the Agency's safeguards system, by extending to a wider circle of non-nuclear States, should help prevent the use of atomic energy for military purposes. The placing of appropriate installations in the Federal Republic of Germany under Agency safeguards could be a definite obstacle to that country's using its atomic industrial potential for manufacturing nuclear weapons.

81. His delegation had been informed that the Government of the German Democratic Republic had that day adressed an important message on Agency safeguards to the President of the General Conference. He associated himself with the request of the Czechoslovak delegation that the President should inform the General Conference of the contents of that statement.

82. In connection with safeguards, it should be noted, however, that the functioning of the Agency's control machinery could not be considered satisfactory. In recent years the Soviet Union had repeatedly drawn attention to the fact that when the Agency's staff of inspectors had been used to carry out control inspections, there had been some discrimination in regard to inspectors who were citizens of socialist countries.

83. There were also important shortcomings in the Agency's staffing policy.

84. The growing volume of demands upon the Agency resulting from expanding international co-operation in the peaceful uses of atomic energy made it imperative to perfect the Agency's mode of operation, so that it could resolve the new problems with which the development of science and technology was constantly confronting it. The Agency would not be fulfilling its duty towards nations if it did not use every opportunity to ensure that atomic energy served man's peaceful needs. For its part, the Soviet delegation would exert every effort to achieve that lofty goal.

85. Mr. RANDERS (Norway) said that since the Agency had been created to deal with problems of the atomic power age, and only recently had nuclear energy become a competitive power source, it might be argued that the Agency had been set up ten years too soon. However, he did not believe that to be the case; for example, much of the Agency's work in the regulatory field of health and safety had been so useful precisely because it had been performed before the problem became urgent.

86. A still more convincing example was that of the Agency's safeguards system. Although in the past ten years there had been little need for it, it was difficult to imagine the process of mutual information, correction and finally understanding which

6) INFCIRC/66.
7) See para. 14 above.

had led to the adoption of the system at the ninth General Conference being compressed into a shorter time. The system was still not perfect, but it would serve as a basis for further development in a period when safeguards were likely to increase in importance.

87. However, the time required to arrive at agreed principles on how to ensure the system's general application would also no doubt be long; his Government therefore felt that the time might have come to review the field of *application* of the system. Article III.A.5 of the Agency's Statute provided that safeguards could be applied to Agency-assisted facilities, to facilities assisted by a foreign State and to any of a State's activities in the field of atomic energy which that State unilaterally submitted to control. He felt that it was now time to start encouraging States to implement the third provision. Especially as the number of cases in which the administration of safeguards in relation to bilateral arrangements was transferred to the Agency increased, it would probably be simpler for each State to place all its present and future peaceful atomic energy activities under safeguards unilaterally, rather than by virtue of different agreements with different supplier countries, dating from different periods and possibly even applying different systems to the same installation.

88. His Government agreed in principle with the proposal of the delegate of South Africa that existing safeguards transfer agreements should be replaced by a series of bilateral agreements between the Agency and the various receiving States 8). However, it would prefer to see those agreements cover *all* peaceful activities of the States concerned, irrespective of whether or not assistance was given from outside. It was for the Member States themselves to decide whether they wished to pursue such a course; the inducement to do so must basically stem from the desire of all nations not producing atomic weapons to assure other such nations of the exclusively peaceful aims of their nuclear activities, and to be so assured in return. He agreed that finding the right means to strengthen that natural inducement might prove a difficult political problem, perhaps better suited to the General Assembly of the United Nations than to the Agency's General Conference. His Government intended to explore that possibility. However, it felt that the Agency's achievement in devising a safeguards system indicated that useful advice and comment might be obtained from its Member States.

89. General, voluntary submission to safeguards of all peaceful nuclear activities would, of course, not solve the problem of the proliferation of nuclear weapons. However, the assurance that such activities would not be abused might well be of importance in the context of proliferation. If other delegations shared his views, the General Conference might perhaps consider transmitting to the United Nations a recommendation inviting its Member States to place those activities under safeguards. His Government was for its part considering whether it would be appropriate to conclude an agreement to that end with the Agency.

90. He wished also to stress the importance of the Agency's activities in the regulatory field. The present, early stage of development of atomic energy was precisely the time when an international body could assist in drawing up rules governing such matters as health and safety, transport, international trade, liability, etc. with a view to obtaining a large measure of uniformity as between the various countries. His delegation shared the Director General's hope that the provisions on emergency assistance in the event of nuclear radiation accidents would soon be completed and adopted.

91. He also wished to refer to the two international projects in reactor physics, the NORA project, which was being carried out in Norway, and the NPY project in Norway, Poland and Yugoslavia. Initiated in 1961, they were the first international research efforts sponsored by the Agency, and had proved successful both because of the results achieved and through the possibility afforded for scientists from a number of countries to co-operate on an advanced level in that important field. As part of the NPY project, a two-week advanced course in reactor physics had been held in Norway in August 1966. It had attracted nearly 100 experienced reactor physicists from more than 30 countries, who had obtained up-to-date information on current developments. His delegation hoped that such efforts might continue, and would make every effort to enable them to do so. He was pleased to note the great number of speakers who had supported the Agency's safeguards system and said his Government would do its utmost to support all efforts to convert into reality the clearly expressed wishes of nearly all nations that the peaceful uses of atomic energy might develop in an atmosphere of trust and confidence.

92. Mr. GUZINA (Yugoslavia) congratulated Uganda and Singapore on their admission to membership of the Agency.

93. The Director General had said that the Agency's activity during the past nine years had been affected by two basic factors, the political climate of the world and the Agency's limited financial resources. He agreed that the first factor was crucial; if the political situation were more favour-

8) GC(X)/OR.103, para. 44.

able the Agency's problems would also be more easily solved.

94. In spite of recent advances towards peaceful co-existence, there were still serious reasons for dissatisfaction. For example, external intervention to prevent the unification of the Vietnamese people represented a serious threat to world peace and hindered the implementation of a programme directed towards the peaceful uses of atomic energy.

95. In the circumstances, the Agency had achieved valuable results, although its activities had developed rather slowly. Elimination of the present disproportion between the needs of its Member States, especially the developing countries, and the Agency's own limited financial resources would greatly assist the Agency in implementing its tasks. Its usefulness in providing technical assistance, disseminating scientific and technical information, harmonizing and codifying regulations and standards, establishing and applying the safeguards system and generally stimulating research had been limited by financial restrictions, which made rigorous selection and rational definition of its various activities necessary. He congratulated the Director General and the Secretariat on their efforts to achieve a rational organization of the various Divisions within the Agency, and felt that the present Secretariat would, as a result of its experience, be capable of further increasing its activity if it had adequate resources at its disposal. He therefore felt it was unnecessary at the present stage to increase the number of personnel employed by the Agency.

96. The Agency was now confronted with the fact that the development of nuclear power had accelerated rapidly, with the result that national scientific centres in the more advanced countries were required to develop more advanced equipment. However, a large number of countries still lagged behind with scientific and technological development, and the Agency could play an important part in providing assistance and advice and in promoting co-operation between those countries in designing, constructing and operating nuclear power plants. He therefore welcomed the steps taken by the Agency with regard to nuclear power, as reflected in its biennial programme.

97. He did not under-estimate the Agency's activities in other fields, such as radioisotope applications, radiation treatment, legislative work, the stimulation of research and the organization of meetings, and especially the application of safeguards. The scope of activity in each of those cases must be determined by the requirements of Member States. In implementing its biennial programme, the Agency would be able to make use of national material and man-power resources in comprehensive projects, and would be able to avail itself of the services of national laboratories in Member States.

98. His delegation had always supported the Agency's efforts to establish and apply an efficient and rational safeguards system. It was important to gain experience in inspection and control methods in order to estimate the need for further extension of the system.

99. Co-operation between the Agency and Yugoslavia had always been fruitful. Its most important results in 1966 included the construction of the Institute for the Applications of Nuclear Energy in Agriculture, Forestry and Veterinary Medicine at Zemun, which had been financially assisted by contributions from the United Nations Special Fund, while the Agency had been responsible for implementing the project. He was grateful to both organizations for their valuable contribution, and wished to invite Member States to participate in the work of the Institute. The TRIGA Mark II research reactor at the Jozef Stefan Institute in Ljubljana had also gone into operation in 1966. Its fuel was supplied through the Agency and was subject to Agency safeguards. The Agency had sponsored a number of international conferences and courses held in Yugoslavia, including the Conference on "Science and Society" held in June and the inter-regional training course in radiobiology, and had sent a group of experts from Sweden to study the problems of constructing a nuclear power plant in Yugoslavia; he believed that the work of that group could be taken as a model for similar studies in other countries. The successful co-operation with Norway and Poland under the NPY project fully justified the Agency's continued sponsorship.

100. In nine years the Agency had proved itself to be an important international organization, which in future would be called upon to play a still greater part in stimulating co-operation and in promoting the peaceful uses of nuclear energy throughout the world, and he wished it success in its task.

101. Mr. ERRERA (Belgium) considered that, on the occasion of the tenth anniversary of the General Conference, it would be useful to review the Agency's past activities and consider the tasks it should undertake in future. The establishment of the Agency in 1956 had been an expression of the dual wish of its promoters to ensure that atomic energy was used for exclusively peaceful purposes, and to disseminate throughout the world a knowledge of the new techniques inherent in its development.

102. After ten years of activity, what were the results which had been achieved? There was no doubt that the Agency had substantially contributed to spreading throughout the world the knowledge

which was essential for introducing nuclear techniques, whether in fundamental research or in the medical, agricultural and industrial applications of radioisotopes. The Agency had likewise laid the foundations of a system of control over the peaceful use of the atom.

103. The Agency's conferences, symposia and seminars had provided scientists and technicians from Member States with the opportunity of establishing numerous contacts and effecting valuable exchanges, and had often been the starting point of further useful collaboration. Similarly, the financial support granted on a short-term basis to certain regional activities had proved fruitful.

104. Through its regulatory activities, which had the purpose of protecting the general public, workers in nuclear industries, and property, the Agency had done particularly useful work.

105. Although there was still no single system possessing universal legal force, a number of countries had introduced into their legislation or their internal regulations the Agency's recommendations concerning, *inter alia*, the safe transport of radioactive materials. Two international conventions, the Brussels Convention on the Liability of Operators of Nuclear Ships and the Vienna Convention on Civil Liability for Nuclear Damage, had been signed in 1962 and 1963 respectively, although they had not yet come into force. Furthermore, numerous handbooks in the Safety Series published by the Agency were highly appreciated in the circles concerned.

106. The trail having thus been blazed, and the Agency having had the opportunity of promoting the numerous uses of radioisotopes in various branches of medicine, agriculture and industry, it now appeared that the Agency should subject to a closer scrutiny those undertakings and activities which might more logically be entrusted to other bodies, whether international or regional.

107. One had indeed the impression that the Agency, in its quite legitimate desire to promote to the maximum the use of nuclear methods, was not confining itself to publicizing or recommending the use of those methods but was sometimes duplicating the functions of other organizations whose general field of competence included similar activities.

108. In that connection he wished to draw particular attention to a problem of great concern to him: the cost of running the Agency and the proportion of the budget which, in the last resort, was used for pursuing the objectives assigned to the Agency under its Statute. The Agency was and should remain a service of world-wide utility, and that being so it had a duty to spend the resources placed at its disposal in such a manner as to secure the maximum yield; therefore, studies and research that normally came within the purview of other organizations, such as WHO, FAO or UNESCO, which incidentally had large budgetary allocations for those purposes, should be excluded from the Agency's programmes.

109. For several years past the Belgian delegation had been recommending a close study of the Agency's technical activities and of the financing of the Agency's Laboratory. The extremely concise report of the Administrative and Budgetary Committee on the subject showed that the study to determine the desirable future development of the Laboratory had been postponed from 1965 to 1966, since the Laboratory's work had already been examined by a group of experts in 1964. However, the group of experts in question — a highly competent one incidentally — had considered the matter from a scientific viewpoint, without reference to the budgetary and general policy questions raised by the Laboratory in the context of the Agency's objectives, yet it was precisely those questions which determined the Laboratory's role in the work of the Agency as laid down in the Statute.

110. He therefore considered it appropriate again to propose the establishment of a committee parallel to the Scientific Advisory Committe (SAC) which would be responsible for examining from an industrial, budgetary and general policy point of view the matters which SAC dealt with in their scientifc connotation. Such co-ordination of activities under the Agency's programme would have the advantage of increasing its effectiveness within the limits of the funds available.

111. Moreover, before new staff was engaged an effort should be made to assign to other functions officials whose original work had been completed before expiry of their contracts, subject to the need for maximum observance of the principle of equitable geographical distribution of posts.

112. Steps should also be taken to keep the number of symposia and seminars within reasonable limits. That would not only secure some reduction in the Agency's expenses but would also permit Member States to avail themselves, to a greater extent, of the services of their experts, a number of whom were ending up by becoming itinerant scientists, passing almost as much time abroad as at home. The financial resources available to States were not inexhaustible and there was a limit to the increase in expenditure they could afford, and hence to the contributions they could make to various national and international organizations.

113. That was a problem with which all countries were familiar. He was therefore convinced that his

concern at the size of the Agency's budget, at the way in which it was allocated, and at its repercussions on the implementation of a dynamic, coherent and economic programme was shared by a majority of Member States, and that it would be understood that his comments had been made in the interests of the Agency itself.

114. With reference to the data contained in the Annexes to the report of the Board of Governors, he wished to point out that it would be desirable to state, after the offers of equipment made by Member States, the offers of Type II fellowships which were available, indicating the countries making the offers. It appeared that some countries were unaware of the facilities available to them for sending their nationals to study in one or other of the countries offering the fellowships in question.

115. Mr. PRETSCH (Federal Republic of Germany) recalled the hope that the late Secretary-General of the United Nations, Mr. Hammarskjöld, had expressed when opening the Conference on the Agency's Statute, to the effect that atomic energy could be used for peaceful purposes in such a way as to help create economic and social conditions which would eliminate many of the present reasons for tension and conflict. The past ten years had shown that there were indeed good grounds for hoping that the discovery of atomic energy would finally prove a blessing to mankind, and the Agency, under the energetic and imaginative guidance of Mr. Cole and Dr. Eklund, had played an essential part in the steps that had been taken towards bringing that goal nearer.

116. As was clear from the report of the Board of Governors, the Agency had continued its activities successfully during the past year. His delegation supported in particular the programme of scientific meetings, and the Federal Republic was glad to have been the host to the very successful and important symposium on food irradiation held at Karlsruhe in June. His country also supported the Agency's health and safety work and welcomed its efforts to draw up an effective safeguards system to ensure that nuclear material was used exclusively for peaceful purposes.

117. The Federal Republic of Germany had expressly renounced the production of atomic weapons as early as 1954; it had also made all nuclear fuels and plants in the Federal Republic subject to the safeguards procedures of EURATOM. Together those measures constituted a guarantee that nuclear energy in the Federal Republic was used exclusively for peaceful purposes. In addition, his Government had declared its readiness to include in all its contracts for the supply of nuclear materials and equipment to countries outside the EURATOM area a clause requiring safeguards to be applied by the Agency, provided other supplying countries were willing to impose the same condition. It hoped that an increasing number of nations would be prepared to accept no less comprehensive international safeguards procedures than those it had accepted itself. The statements made by the delegations of Poland and Czechoslovakia expressing their countries' acceptance in principle of the Agency's safeguards represented a first step in that direction.

118. During the past ten years the utilization of nuclear energy had made good progress in the Federal Republic, as regards both research (e.g. on fundamental particles and plasma physics) and reactor construction. There were now 34 reactors in operation or under construction, including three experimental reactors of advanced design, and the German reactor-building industry was now able to make competitive offers in the world market. With a view to disposing of the increasing quantities of radioactive waste from reactors, his country was experimenting with storage in salt mines. From 1968 on his country's nuclear programme would concentrate on fundamental research and breeder reactors, and he was gratified to note that an Agency symposium on fast-breeder reactors would be held there in 1967.

119. International co-operation in the use of nuclear energy was of the utmost importance. Not only did his country co-operate actively within the framework of the Agency, in which connection it had been very pleased to receive scientists from a number of East European countries as visitors to its nuclear research centres; it also maintained close bilateral relations with a number of States Members of the Agency and took part in a multitude of international research and development projects as a member of EURATOM, the European Nuclear Energy Agency and the European Organization for Nuclear Research (CERN).

120. Looking ahead, he supported the Programme for 1967-68 and Budget for 1967. German scientists were particularly interested in the Agency's work in the fields of radiation protection, radiobiology, nuclear medicine and waste disposal. The Federal Republic would give full support to the Agency's efforts to ensure the provision of international emergency assistance in the event of nuclear radiation accidents, though it would itself be prepared to render such assistance even before any formal agreement was concluded. The increase in the Regular Budget seemed justified, the more so since the percentage increase was less than for 1966. He hoped Member States would make larger voluntary contributions to the General Fund. The Federal Republic intended to increase its contribution by 10%, and also to present a mass spectrometer as

a contribution to the Agency's ground-water research programme.

121. Mr. BRYNIELSSON (Sweden) said that there had been a great change in the general outlook for nuclear energy over the past ten years. The world was not now facing any scarcity of power resources, at least not for a generation. Nuclear power had now advanced, however, to the point where it was competitive, even in areas where fossil fuels were very cheap; and Sweden for example planned to establish twice as many nuclear installations during the next ten years as it had three or four years previously.

122. There remained the question whether nuclear energy would be able to make a major long-term contribution to the world's power supplies. In his view, the Agency could fulfil an important function in studying the raw material resources on a world-wide basis. The increased importance of the commercial aspects might mean that the hitherto rather free exchange of technical information would be somewhat restricted, in particular in regard to established reactor types. Considerable scope would, however, remain for government action and international co-operation in the development of advanced reactor systems such as fast-breeder reactors and thorium reactors.

123. The fact that in many countries nuclear energy programmes were now subjected to careful scrutiny and their priority weighed against other needs of scientific and technical development lent point to what the Director General had said regarding the need for increased regional and international collaboration to avoid duplication of effort. As far as the Agency's own programme was concerned, SAC might profitably aim at achieving a greater degree of concentration.

124. In view of the rapid increase in industrial activity and international trade, it was essential that the Agency should continue its efforts to develop regulations and codes of practice. Its most important function in that respect was of course in the field of safeguards. The Swedish delegation welcomed the application of the Agency's safeguards system to all facilities involved in the fuel cycle and sincerely hoped it would be universally accepted and that the Agency would be used for carrying out the safeguards required in relation to bilateral and other arrangements.

125. Sweden attached special importance to the Agency's technical assistance programme and was disappointed that the funds available for the purpose were diminishing, though the Secretariat was to be congratulated on its efforts to make the best possible use of the limited funds. As before, Sweden would contribute its share of the target figure for voluntary contributions, and was also offering two new Type II fellowships.

126. In conclusion, he suggested that now that the general trend of the Agency's work was well-established and generally agreed, and that a lesser degree of parental supervision on the part of Governments seemed necessary, the Board should again study the question of administrative reforms that could be carried out without revision of the Statute. For example the General Conference could meet in full session every second year only and the number of Board meetings could also be further reduced, the resulting savings being used for the greater benefit of Member States, for example in providing technical assistance.

Further statements under item 10 were deferred to the next meeting.

CLOSING DATE OF THE SESSION

127. The PRESIDENT recalled that under Rule 8 of the Rules of Procedure the General Conference had to fix a closing date for the session, on the recommendation of the General Committee.

128. The General Committee had considered the question the day before and had authorized him to recommend on its behalf that Tuesday, 27 September, be provisionally fixed as the closing date, subject to all business having been disposed of by then.

129. *The General Committee's recommendation was accepted.*

The meeting rose at 5.50 p.m.