



CONTENTS

Agenda item 67:	
International co-operation in developing the peaceful uses of atomic energy: report of the United States of America (<i>continued</i>)	335

Chairman: Mr. Francisco URRUTIA (Colombia).

AGENDA ITEM 67

International co-operation in developing the peaceful uses of atomic energy: report of the United States of America (A/2734, A/2738, A/C.1/L.105) (*continued*)

1. Mr. EBAN (Israel) said that President Eisenhower's proposals had challenged the false equation between nuclear physics and human disaster. Whether the new energy became a source of destruction or of expanding welfare was for man to decide.

2. In discussions of atomic war, the small nations had no equality with the more powerful countries, but in discussing the peaceful application they stood on more equal ground. All nations which developed a sound scientific tradition might have a constructive purpose to fulfil in that field, and all countries could be beneficiaries of the new inheritance which had been bequeathed to humanity.

3. The peaceful use of nuclear energy opened very promising vistas for countries deficient in the conventional sources of power. Owing to the fact that nuclear energy was such an uncannily compact, transportable and potent source of power, it would be possible to remedy the unequal distribution of power resources in the world. While it was wise to approach the matter with caution, the fact remained that estimates of the period within which nuclear power might economically replace other fuels varied between five and fifteen years. It was clear that that prospect already belonged to the realistic planning of economies.

4. The initiative of the United States was therefore timely, and one of its valuable features was the decision to submit the problem to the United Nations, which alone held the promise of controlling the use of atomic energy in the universal interest. Out of successful co-operation in the peaceful use of atomic power, there might well emerge processes of thought and action which might assist the United Nations in other questions, including the problem of atomic weapons.

5. Israel was both a contributor to the sum of theoretical and applied nuclear knowledge and a prospective beneficiary. The number of physicists and chemists in Israel engaged in research was relatively probably as

high as in any other country. Moreover, Israel faced heavy tasks of economic and social progress without possessing any cheap source of fuel or electric power. Israel might therefore find atomic energy to be an economic source of power sooner than other countries more lavishly endowed. Atomic reactors might in due course ensure an abundance of electric power for all countries, but Israel recognized that such a goal could only be attained by communities well versed in nuclear studies and possessing general scientific training.

6. Israel had therefore been preoccupied with the problem from the outset. The first President of Israel, Chaim Weizmann, had been concerned both as a scientist and as the architect of a nation with the problem of compensating for natural deficiencies, and his interest had naturally been aroused by the prospect of finding substitutes for conventional power. From the closing days of the Second World War to the end of his life, Dr. Weizmann had been in contact with leading figures in the world of nuclear physics.

7. Within a year of Israel's establishment, the foundations of its nuclear programme had been laid with the establishment of the Department of Isotope Research in the Weizmann Institute of Science at Rehovoth. For five years, that department had worked assiduously in the following fields: first, radio-active isotopes of low activity; secondly, the enrichment of heavy water by fractional distillation; thirdly, cosmic rays; fourthly, the exploitation of low-grade uranium ores such as phosphates; fifthly, the study of the mechanism of chemical reactions by means of isotopic tracing; sixthly, natural radio-activity; seventhly, prospecting for possible underground deposits of radio-active materials. Mr. Eban pointed out that the second item he had enumerated had led to the construction of a pilot plant which was already producing heavy water. The process, originated in Israel, had been adapted and applied in France. That illustrated the fact that co-operation in that highly specialized field should be conceived functionally rather than regionally. In connexion with the fourth item, Mr. Eban drew attention to the fact that Israel possessed large phosphate deposits.

8. Encouraged by the results of the work achieved in the Department of Isotopes, the Weizmann Institute was about to cover a wider field through the establishment of a department of nuclear research.

9. In Jerusalem, in the Hebrew University's Physics Department, work had been done in nuclear spectroscopy, micro-wave research, energy radiation and semi-conductors. In the Hadassah Medical Centre affiliated with the Hebrew University, isotopes had been applied for diagnosis and treatment in blood diseases, cancer and thyroid conditions.

10. In 1953, the Israel Atomic Energy Commission had been established with wide powers to supervise, co-ordinate and encourage the work to which Mr. Eban had referred.

11. Modest though the record might be, it explained why the Government of Israel had a specific interest in each of the four proposals outlined by the United States Secretary of State on 23 September 1954 in the General Assembly (475th meeting).

12. The delegation of Israel applauded the decision of the seven Powers sponsoring the joint draft resolution (A/C.1/L.105) to establish an international agency for the peaceful use of atomic power. That agency should be conceived in terms of universal membership, and it was to be hoped that the Soviet Union would be fully associated with every part of the project.

13. The responsibility of the agency for fostering the interchange of information and diffusing the results of research was of great importance, but research was only the first stage in the application of atomic power; the most important objective was the actual generation of power through the establishment of reactors, and the distribution of material.

14. As cost problems were overcome, many countries would soon approach the era of economic atomic power. Accordingly the willingness of the United States to offer training in reactor engineering even before the establishment of the agency was of great value.

15. With regard to the functions of the agency, Mr. Eban agreed with the co-sponsors of the joint draft resolution that the agency would not be able to fulfil all its potentialities from the very first day. It should not be expected that atomic reactors would spring up all over the world regardless of high costs and the limited availability of trained operators. However, the agency would have a varied programme from the outset.

16. The delegation of Israel suggested that the aims of the agency might include the following: first, to establish integrated plans for research on the peaceful uses of atomic energy; secondly, to decide, in consultation with qualified scientists of member countries, upon research projects which could best be carried out in those countries as part of the integrated plan; thirdly, to assemble, co-ordinate and distribute the results of individual research projects in order to avoid duplication of effort; fourthly, to facilitate research activities by material and technical assistance; fifthly, to arrange for the exchange of scholars and research workers; sixthly, to organize courses or seminars in member countries for the benefit of qualified students from all member countries; and seventhly, to assist member countries in the planning and establishment of atomic plants. The emphasis on research and training conformed to the approach suggested by the Powers chiefly concerned in the atomic field, but much would depend on their willingness to make fissile materials available for both research and application.

17. With regard to the immediate and practical tasks of the agency, the delegation of Israel considered that the following might be included: first, to prepare a survey of uranium and thorium resources in member countries; secondly, to elaborate methods for the use of low-grade ores; thirdly, to explore the possibility of converting nuclear energy directly into electric power without the intermediate thermal stage; fourthly, to elaborate methods for the large-scale preparation of heavy water; fifthly, to make a comparative technical and economic evaluation of the various types of atomic piles; sixthly, to survey the most urgent purposes to which atomic energy should be applied,

giving special consideration to the desalting of water for irrigation purposes; seventhly, to carry out research projects on the application of atomic energy and radio-active substances in agriculture and technology; and eighthly, the processing and refining of fissile fuels. Another subject for early investigation would be the possibility of denaturing dangerous materials to make their military use impossible.

18. The feasibility of adapting salt water for irrigation had been proved, but the cost was still prodigious. That might be one of the first practical problems which the agency could try to solve, with incalculable benefits to countries hampered by a shortage of water for irrigation. Recalling that the representative of France had suggested (708th meeting) that priorities might be assigned to areas where conventional power sources were scarce, Mr. Eban suggested that priority might also be given to subjects of research and application which would solve the pressing problems of under-developed areas.

19. Turning to the organization of the proposed agency, Mr. Eban said that the agency could take a number of alternative forms. It might be a separate administration within the Secretariat, like the United Nations Children's Fund or the Technical Assistance Administration, subject to the control of the appropriate United Nations organs. It might be a specialized agency in close relationship with the United Nations, through the Economic and Social Council, like the Food and Agriculture Organization or the World Health Organization. It might be a specialized agency in more formal relationship with the United Nations, like the International Bank for Reconstruction and Development or the International Monetary Fund. Finally, it might be an independent inter-governmental agency with a special relationship with the General Assembly itself, rather than with the Economic and Social Council or any other United Nations organ. Israel had a general preference for, but was not committed to, the last alternative. But whatever form of organization was adopted, two fundamental principles should be observed: first, universality of membership and, secondly, the closest possible relationship with the United Nations and other appropriate international bodies.

20. With regard to the proposed international scientific conference which was to be convened in 1955 Mr. Eban believed that it would do much to expedite the interchange of knowledge. It should be open to all States, and it was to be hoped that they would appoint to it those of their scientists who had the greatest experience in problems of nuclear energy. Israel had formulated some ideas concerning the agenda which it would be glad to make available at the proper time.

21. It would be wise if the advisory committee which was to assist the Secretary-General were to include not only the major Powers in the field of atomic energy but also others more specifically aware of what the smaller countries could hope to contribute and to derive through their participation.

22. The United States offer of training courses, and the facilities offered by the United Kingdom and Canada, were of the first importance. In at least one field—the production of heavy water—Israel could contribute to the training of selected specialists.

23. The delegation of Israel applauded the spirit and intent of the joint draft resolution. The theme of the

current debate was co-operation, and the suspicions which had prevented agreement on the control of atomic weapons should not be allowed to invade the domain of peaceful uses. It was to be hoped that the Soviet Union would see the virtue of giving the new enterprise a separate chance of success, while work went forward simultaneously in the Disarmament Commission on an agreement for the control of atomic weapons.

24. Perhaps, if Governments bent their efforts toward research and application in the field of the peaceful uses of atomic energy, they would develop habits of co-operation which would help them to find agreement on atomic weapons. No disputes or conflicts should prevent the United Nations from grasping the present opportunity to become the agent of a broader welfare for all peoples.

25. Mr. SKRZESZEWSKI (Poland) said that all peoples, including the Polish people, were concerned that rapid progress should be made in developing the potentialities of the peaceful uses of atomic energy.

26. Progress in atomic science had not been the work of any one nation. Contributions had been made by the scholars and scientists of various nations, both of the East and of the West. In the field of radioactivity, the name of Marie Skłodowska Curie was prominent. The anniversary of her death had been commemorated on 7 October 1954 at a session of the Polish Academy of Science. One of the elements discovered by Marie Curie and her husband, Pierre Curie, had been called polonium, and the name symbolized Poland's contribution to the development of nuclear physics. Their report of the discovery of a hitherto unknown mineral in pitchblende had been published simultaneously in Paris and Warsaw in July 1898. Since then, Polish scholars, and especially mathematicians, had contributed steadily to the development of nuclear physics.

27. Atomic energy had first appeared as a destructive force. The United Nations had concerned itself with that problem and contemplated the possibility of using atomic energy for peaceful purposes. In the unanimously adopted resolution of January 1946 establishing the Atomic Energy Commission (resolution 1 (I)), the General Assembly had stressed the need for proceeding with the exchange of information, the prohibition of the use of atomic energy for military purposes and the establishment of control to ensure its use for peaceful purposes only.

28. From the outset, Poland had taken an active part in the United Nations quest for a solution. As a member of the Security Council and the Atomic Energy Commission, in 1946-1947, Poland had sought to contribute to the creation of favourable conditions for international co-operation in the use of atomic energy for peaceful purposes. Poland believed that the question of the peaceful uses of atomic energy could not be divorced from the problem arising out of the fact that that energy could also be used for military purposes. As the representative of Syria had stated (714th meeting), the destructive aspects of nuclear energy could not be overlooked.

29. The sponsors of the joint draft resolution (A/2.1/L.105) had tried to separate the two problems. The United States representative had said (715th meeting) that they were two different things. However, even in the disarmament discussion, it had been pointed out

that it was very easy to pass from the production of atomic energy for peaceful purposes to the production of atomic weapons. The United States representative had referred in his first statement (707th meeting) to his Government's programme for the construction of five different reactors over a five-year period. In that connexion, from a statement made by the United States Atomic Energy Commission on 2 June 1954, which had appeared in the official records of the Joint Congressional Committee on Atomic Energy, it was clear that the reactors would produce fissionable material which would be valuable both as fuel and for the production of weapons. Thus the possibility of using atomic energy for destructive purposes was constantly increasing, and the conclusion was inescapable that the problem of using atomic energy for peaceful purposes was bound up with the problem of its use for purposes of war.

30. In another respect too the United States statement of 12 November (715th meeting) should be compared with the opinion of the experts. The United States representative had said that amendments to the Atomic Energy Act of 1946 would permit greater exchange of information and materials with foreign nations. That was in contradiction with the views of the Chairman of the Joint Congressional Committee on Atomic Energy, who had said on 23 July 1954 that there was no provision in the amended law which made it possible to transmit information to the world, and that in principle the revised law barely expanded the scope of the exchanges of information beyond what was already authorized by the law.

31. The statements of many high officials showed that the peaceful uses of atomic energy had been only a secondary goal for the United States. Mr. Gordon Dean, former Chairman of the United States Atomic Energy Commission, had said in his book that the United States programme was to a great extent an armaments plan conducted in great secrecy and haste, and that that effort had obliged the United States to overlook some essential research on the peaceful uses of atomic energy. Mr. Smyth, an eminent scientist and a member of the United States Atomic Energy Commission, had told the Joint Congressional Committee in June that in the United States the military uses of atomic energy were more advanced than the industrial uses.

32. The United States treated atomic weapons as conventional armaments. The United States attitude had been indicated in the statement made by General Gruenther on 30 September 1954, to the effect that the greatest error the United States and its allies could commit would be to agree to the prohibition of atomic weapons or to a restriction of their use to purposes of defence.

33. The Polish delegation wished, therefore, to emphasize the fact that, although it was both possible and necessary to seek international agreement on the subject of the peaceful uses of atomic energy, such efforts were likely to be obstructed by the difficulties arising from the military aspect of the problem. The primary task, in the atomic energy field, was to adopt a disarmament convention which would help to create favourable conditions for large-scale international co-operation in developing the peaceful uses of atomic energy, and which would eliminate the danger of the use of atomic energy for purposes of destruction.

34. Poland was aware of the danger to its own security, as well as to that of Europe as a whole, which resulted from the fact that the reconstituted armed forces of Western Germany were now being given the possibility of including atomic weapons among their armaments. That was the reason that Poland was concerned with the question of collective security and supported the Soviet Union proposal for a conference on that problem. Such a conference would certainly have a favourable effect on peaceful international co-operation in all fields.

35. Turning to the various forms of peaceful uses of atomic energy, and to the prospects such uses opened for humanity, Mr. Skrzyszewski said that the greatest achievement in that field was that of the Soviet Union, which had inaugurated, on 27 June 1954, the first atomic power station in the world. That great achievement would go down in the annals of science and technology.

36. The atom as an important new source of power increased the possibility of raising the world's standards of living and welfare. That fact was of importance to all countries, including Poland; it was of even greater importance to the under-developed countries. It was natural that those countries should be particularly interested in the current debate, and any international organization which dealt with the peaceful uses of atomic energy would have to give the greatest possible consideration to the interests of the under-developed countries in that field.

37. The international problem created by the discovery of atomic energy was probably the most important that had ever faced the world, and the Polish delegation was prepared to welcome any practical effort which would lead to a solution. It was in that spirit that it had approached the seven-Power draft resolution. Nevertheless, that draft was inadequate in the face of so vast a problem.

38. The joint draft resolution did not give sufficient consideration to the military aspect of the problem, and, in particular, to the question of existing stockpiles of atomic bombs. The programme it proposed was more limited in scope than the one envisaged in the proposals presented by President Eisenhower in December 1953 (470th plenary meeting). It did not take account of the interests of the under-developed countries. It also limited the number of participants in the international conference.

39. With regard to the type of relationship which should exist between the proposed agency and the United Nations, Mr. Skrzyszewski believed that it was not enough that it should be similar to the relationship between a specialized agency and the Organization. Because of the twofold character of atomic energy, with its peaceful aspects and its military aspects, the international agency should be responsible to the General Assembly and, in the cases provided for in the Charter, to the Security Council.

40. The Polish delegation was nevertheless convinced that the defects of the joint draft resolution could be remedied by negotiation.

41. The Polish delegation hoped that the present conversations on the subject of international co-operation for the peaceful uses of atomic energy would be successful. The Polish Government, for its part, would

do whatever it could to promote such co-operation, which was so important for mankind.

42. Mr. JACKSON (United States of America) declared that he was not a scientist, but that he had been privileged to work with the President of the United States, the Secretary of State and the Chairman of the Atomic Energy Commission on the subject of "atoms for peace". He was therefore well qualified to answer the charge made by the representative of the USSR (708th meeting) that the present plan had been narrowed down in volume, scope and form as compared with the proposals made by President Eisenhower.

43. In point of fact, the objectives of the United States today were the same as when President Eisenhower had made his proposal to the General Assembly on 8 December 1953 (470th meeting), when Mr. Dulles, on 19 March 1954, had delivered a memorandum (A/2738) to the Soviet Ambassador in Washington, and when, on 23 September 1954, he had spoken before the General Assembly (475th meeting). They had still been the same when, on 5 November 1954, Mr. Lodge spoke before the First Committee (707th meeting).

44. But it was not enough merely to say that there had been no change in the United States plan. Mr. Jackson was prepared to support that statement by facts.

45. The United States representative accordingly proceeded to quote extensively from President Eisenhower's statement, including that portion of the plan which envisaged the setting up of an international atomic energy agency, under the aegis of the United Nations, which would devise methods whereby fissionable material would be allocated for peaceful purposes. President Eisenhower had proposed that fissionable material should be contributed to that agency by the Governments principally involved, and had pointed out that of those principally involved the Soviet Union should, of course, be one.

46. The second important step had been taken on 30 August 1954 when, at the request of President Eisenhower, the United States Congress had amended the Atomic Energy Act in order to permit the United States to share knowledge in the atomic field with other nations, in accordance with President Eisenhower's plan.

47. On 23 September 1954, Mr. Dulles, the United States Secretary of State, had made a statement on the subject of the peaceful uses of atomic energy before the General Assembly. Quoting from that statement, Mr. Jackson showed that Mr. Dulles had also spoken about plans for creating an international agency calling an international scientific conference under United Nations auspices, opening a reactor training school early in the following year where students from abroad could learn the working of the principles of atomic energy, with specific regard to its peacetime uses, and inviting medical and surgical experts from abroad to participate in the work of United States cancer hospitals. Mr. Dulles had made it perfectly clear that United States planning excluded no nation from participation in the venture.

48. Mr. Jackson then recalled the statement of Mr. Lodge before the First Committee on 5 November 1954, in which Mr. Lodge had mentioned the specific contributions which the United States proposed 1

make to the development of the peaceful utilization of atomic energy. He had spoken of plans for the establishment of a reactor training school early in 1955 open to scientists and engineers from overseas; for the establishment, also in 1955, of courses in industrial medicine, industrial hygiene, radiological physics and the theory and use of radiation instruments; for inviting cancer specialists from all parts of the world to visit the United States; for the organization, in 1955, of courses for foreign students in radio-isotope tracer techniques in industry, agriculture and medicine; for offering libraries on the question of atomic energy to nations which requested them; and for an international scientific conference in 1955; he had also reiterated the United States desire for the creation of an international atomic energy agency under the aegis of the United Nations.

49. It was clear, Mr. Jackson observed, that each succeeding event, instead of narrowing the scope of President Eisenhower's original proposal, had added to it and elaborated it further. There had been a change, no doubt, but a change of method and not of scope. That change had been made in order to speed up the implementation of the United States proposal after ten months of silence from the Soviet Union. President Eisenhower's original plan had called for a United Nations agency which would have the responsibility for the physical custody and protection of an international pool of fissionable material. It had been expected that the Soviet Union would be one of the Powers involved in developing the plan, but, during the previous ten months, the Soviet Union had been unwilling to join in such a plan. The United States, in consultation with other nations, had realized that the facilities, technicians and instruments for the physical custody of fissionable material would not only entail a great delay in getting the plan into operation, but would also be needlessly expensive to the United Nations. As a result, the international agency was now being proposed as a clearing-house to receive, study and supervise the exchange of fissionable materials. Mr. Jackson added that that change of method took nothing away from the original plan; it would merely result in an economy of time and money.

50. Mr. VYSHINSKY (Union of Soviet Socialist Republics) said that the United States representative had shown extreme haste in drawing the conclusion that the USSR Government refused to contribute its share to the common enterprise. Mr. Jackson had sought to show that President Eisenhower had sub-

mitted an excellent plan. And although the plan had contained no safeguards to ensure that atomic energy would be used only for peaceful purposes, and never for military purposes, that did not mean that the Soviet Union considered it a bad one. Mr. Vyshinsky had merely asked why the present plan differed from the original plan. Mr. Jackson had asserted that there was no difference, but he had given no facts in support of that assertion.

51. It was quite obvious that all the functions of the proposed agency could not be laid down in detail in the joint draft resolution. On the other hand, since the proposed plan was of a long-term character, there must be at least some reference to the aim of extending economic and technical assistance to the under-industrialized countries.

52. As Mr. Jackson must have been aware, on 12 November the Soviet delegation had offered some amendments to the joint draft resolution, which it had presented to the representatives of the United States, the United Kingdom, France and Canada. It had not yet submitted them to the Committee, because the USSR Government wished first to elicit the views of the principal sponsors of the joint draft resolution. There was thus absolutely no justification for saying that the USSR was unwilling to make its contribution to the common endeavour.

53. Mr. JACKSON (United States of America) said that in his earlier statement he had confined himself to refuting the Soviet statement that the United States had narrowed down the scope of its proposal. Mr. Lodge would subsequently deal extensively with the statements of the USSR representative. Mr. Jackson was well aware of the various exchanges of Notes that had taken place between the representatives of the United States and the USSR on the question. But after more than eleven months, all that had been received from the Soviet Union were certain amendments to the joint draft resolution. He doubted whether that was a contribution.

54. Mr. VYSHINSKY (Union of Soviet Socialist Republics) stated that it was premature to judge whether the amendments submitted by his delegation to the principal sponsors of the joint draft resolution were a great or a small contribution. He regretted that after an interval of three days the United States representative had not yet stated his views on those amendments.

The meeting rose at 12.35 p.m.