

the United States, Great Britain and Canada, the three countries which were associated in the wartime project. The Washington declaration on atomic energy issued on November 15, 1945, by President Truman, Prime Minister Attlee and Prime Minister King recognized the need for an international agreement and proposed as a matter of great urgency the setting up of a Commission under the United Nations to study the problem and to make recommendations for its control.

These discussions were followed by a meeting of the Foreign Ministers in Moscow in December, 1945, at which the Washington proposals were endorsed. At the meeting of the General Assembly on 24 January, 1946, in London, the United Nations Atomic Energy Commission was established by unanimous resolution.

The Commission, composed of delegates from each country represented on the Security Council, as well as Canada when Canada is not a member of the Council, was charged with making specific proposals:

- (a) For extending between all nations an exchange of basic scientific information on peaceful ends,
- (b) For the control of atomic energy to the extent necessary to ensure its use only for peaceful purposes,
- (c) For the elimination from national armaments of atomic weapons and of all other major weapons adaptable to mass destruction,
- (d) For effective safeguards by way of inspection and other means to protect complying states against the hazards of violations and evasions.

When the Commission first met in New York in June, 1946 it was presented with two different plans for the control of atomic energy, one proposed by the United States and the other by the Soviet Union. The United States proposal generally resembled that outlined in the Lilienthal Report, which had been released in the United States a few months previously. It called for the formation of an International Atomic Development Authority, which would foster beneficial uses of atomic energy and would control atomic activities in all nations either by direct ownership, management or supervision, in the case of activities potentially dangerous to world security, or by a licensing and inspection system in the case of other activities. This system of control would be set up by stages and after it was in operation, the manufacture of atomic bombs would stop. Existing bombs would be disposed of, and the world authority would be given information regarding the production of atomic energy. In addition, the United States proposal emphasized that the veto of the Great Powers in the Security Council should not apply in the event that any nation was charged with having violated the international agreement not to develop or use atomic energy for destructive purposes.

I may say that the proposals made by the United States accord very closely with the

views of the Government of Canada, and of many other nations in the Western World, as to how this problem might be brought under control. On the other hand, the Soviet Government put forward a plan which differed fundamentally. It proposed the immediate outlawing of the atomic bombs and the destruction of all existing stocks of atomic weapons within a three months period. To this end the Soviet delegate tabled a draft convention which, he said, should be negotiated forthwith as the first step towards the establishment of a system of international control. The Soviet delegate was prepared to discuss methods of control and inspection but he maintained that this should not hold up the immediate prohibition of atom bombs.

The idea that the menace to world peace presented by the atomic bomb could be solved merely by the signing of an international agreement to prohibit its use or manufacture seems very unreal. The experiences of the last twenty-five years have shown that international agreements alone are not enough to safeguard the peace. The prohibition of the use and manufacture of the atomic bomb at the present time would merely seriously reduce the military strength of the United States, the only nation now in possession of atomic bombs. It would be an act of unilateral disarmament which would give no assurance that any country engaged in atomic energy activities would not or could not make and use the bomb in the future. Fissionable material, the essential material for such peaceful applications of atomic energy as the development of industrial power, is also the explosive element of the bomb, and in the absence of effective inspection and control could readily be diverted from peaceful to military uses by a nation secretly preparing for atomic war.

For this reason, most members of the Commission were in general agreement with the principles of the American proposals. They considered that the prohibition of the use or manufacture of the atomic bomb should form part of an over-all control plan, so that when such prohibitions were put into effect they would be accompanied by the applications of safeguards such as international inspection of all countries to ensure that no secret activities in atomic energy were in progress.

#### NEW APPROACH SOUGHT

After weeks of discussion along these lines, the Commission decided to seek a new approach to the problem by a study, in committee, of the available scientific information, to determine whether an effective control of atomic energy was feasible. This study resulted in a unanimous report by the scientists of all nations represented on the Commission that "they did not find any basis in the available scientific facts for supposing that effective control is not technologically feasible." With this conclusion before it, the Commission then proceeded to discuss the safeguards that would be required at each stage in the production

and application of atomic energy to ensure its use only for peaceful purposes.

The Commission's findings were set out in detail in its First Report which was approved on December 31, 1946, by a vote of 10 to 0, with the Soviet and Polish Delegations abstaining. In this Report, the Commission pointed out that as all applications of atomic energy depended on uranium and thorium, control of these materials was an essential safeguard. The Commission, therefore, recommended international inspection of all mines, mills and refineries to prevent possible diversion of materials to the making of atomic bombs. As the materials assumed a more concentrated form and were therefore more directly applicable to bomb making, the Commission believed that the controls would have to be even stricter. They considered that at least certain plants producing substantial quantities of fissionable material should be placed under the exclusive operation and management of the international authority.

Concurrently with the discussions in the United Nations, the question of the control of atomic energy in Canada came before Parliament and as a result an Act was passed which established the Atomic Energy Control Board with the duty of controlling and supervising the development and application of atomic energy in the interest of the people of Canada and generally to prepare to carry out the obligations which it would be necessary to assume under an international agreement of the character and scope which had been indicated in the discussions taking place in the United Nations.

#### RESEARCH IN CANADA

You are, of course, familiar with the significant contributions made in Canada during World War II and before to the development of knowledge of nuclear physics and in consequence I shall not attempt tonight to describe the work which has been done or that which is in progress in the Universities, in the National Research Council or at the pilot plant at Chalk River which is operated by the National Research Council for the Board.

I would like, however, to say that research in Canada is being directed to the acquisition of fundamental knowledge in nuclear physics and towards the peaceful applications of atomic energy but in view of the dangerous possibilities of fissionable materials the Board has issued regulations controlling dealings in these substances to ensure that they do not fall into improper hands; similarly some of the information obtained in research has a bearing on national security and naturally the Board is concerned that these matters should be properly safeguarded.

To return to the discussions of atomic energy in the United Nations, the Second Report of the Atomic Energy Commission was approved by the Commission on 11 September last and sent forward to the Security Council. Ten

nations voted in favour, the U.S.S.R. voted against and Poland abstained.

The Report contains specific proposals as to the powers and functions which an international agency would need to have. Particular consideration has been given to a system of checks and balances to be applied to the operations of the proposed Agency through the Security Council, the General Assembly or the International Court of Justice as appropriate. These limitations have been worked out so as not to impede prompt action by the Agency wherever this may be required but at the same time to make the Agency "responsible" in the sense that we use this term in reference to our Cabinet system of Government in Canada, that is to check any arbitrary and unnecessary use of authority and to provide for methods whereby any complaints against the Agency or its staff could be fully investigated and corrected. I think I can claim that the proposals in the present Report are fully in accord with this democratic conception and yet that they do not compromise the powers needed to be exercised by the Agency in any way.

On behalf of Canada I had the authority to state that in our view these proposals together with the General Findings and Recommendations of the First Report provide the essential basis for the establishment of an effective system of control to ensure the use of atomic energy for peaceful purposes only and to protect complying states against the hazards of violations and evasions.

#### OPPOSITION BY USSR

As I have said this view is shared by ten out of the twelve nation members of the Commission. On the other hand, Mr. Gromyko, speaking for the U.S.S.R., expressed his continued opposition. He reiterated his view that no progress had been made because the report did not provide a solution for what he described as the urgent problem of prohibiting atomic weapons and particularly for the early destruction of the U.S. stocks of atomic bombs. He objected also to the ownership of fissionable material, and of plants for its processing and use, being vested in an international authority which he held to be both unnecessary and contrary to the principles of national sovereignty. He took similar objection to the proposals for the licensing of non-dangerous atomic energy activities which the majority of the Commission felt should be supervised by the Agency although their operation had been entrusted to a national authority.

Mr. Gromyko thought that some system of "quotas" would suffice and he said that this proposal had not been sufficiently explored. The only point on which he seemed to have moved forward from the position which he took at the time of the First Report was in relation to inspection and control which he now conceded must be international in scope and organization with personnel who are international. However it is thought that by international