

EURATOM AND THE REGIONAL PROBLEM OF ATOMIC ENERGY

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by

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I am particularly glad to have this opportunity of speaking to you today. The John Hopkins University is no stranger to me and I look back with great pleasure to a long talk I had about two years ago with its President, Mr. Milton Eisenhower. One of the subjects we touched on at the time was, as far as I remember, European integration, which is what I want to talk to you about today. Since that time, however, my own thoughts on the question of European integration have undergone a certain development. For over a year now I have been playing a part in the job of putting this great idea into practice. That is why I would like you to bear in mind that my remarks today are partly the result of the first-hand experience which I have been able to build up personally since that time, an experience which makes me more convinced than ever before of the necessity for integration. I should like to begin by quoting Article 1 of the Treaty setting up the Community. This Treaty is more than a treaty; it is the basic law of our Community. Article 1 states that it is the aim of the Community "to contribute to the raising of the standard of living in Member States and to the development of commercial exchanges with other countries by the creation of conditions necessary for the speedy establishment and growth of nuclear industries".

As you see, the final goal is not a technical one. It is rather a social one, technology being the means to an end. I can assure you that my colleagues and I are always fully aware of this dual obligation of promoting the nuclear industry and thereby making a contribution to the social development of the Community and

thereby to its political evolution and consolidation. In line with this mission, we have a political responsibility, and, as I should also like to add, sole responsibility towards the European Parliament. I want to emphasize this at the very beginning, firstly because the term "Commission" is likely to be misinterpreted and secondly because our work is built on the basis of the full and guaranteed independence of the executive from the authorities of the member states. So far I have touched on two institutions of the Community, which at first glance may seem to you to be somewhat complex in its organization. But for anyone who has been brought up in the tradition of American constitutional history, the reason for this multiplicity of institutions within the Community is, surely, not difficult to understand: it is the practical embodiment of that doctrine of checks and balances which inspired the authors of our Treaty as it did the founding fathers of the American constitution. I do not wish to convey the impression that I am placing the Treaty setting up our Community on a level with the American Constitution. The American Constitution is a comprehensive political achievement which has proved its value magnificently in the course of an almost 200-year-long tradition. Our Treaties mark the beginning of a task which for reasons of history raises different problems than those which faced the authors of the American Constitution and which, consequently, call for different solutions. Let there be no doubt, however, that in the final analysis the goal of our Community is the same, namely political integration to preserve freedom and our common heritage. This, at least, is how we understand our mission, and the promotion of nuclear technology is one of the means to this end.

As you know, our Community has two sister Communities: the European Coal and Steel Community and the European Economic Community. When the European Coal and Steel Community was founded in 1951, it was styled "supra-national" to designate very appropriately a completely new type of international organization, the underlying idea being that the six partners had, so to speak, yielded to the Community their sovereignty in one limited field. Later, after the EURATOM and the European Economic Community Treaties came into force, the opinion was voiced occasionally that the new Communities could not be regarded as being, properly speaking, supra-national organizations. This is a point of view, however, which cannot be reconciled with the text of the Treaties of the two new Communities and still less with their political aims. I should like to make a few remarks on this subject.

As you know, all three Communities have two institutions in common, namely, the European Court of Justice and the European Parliamentary Assembly. I shall come back later to the great importance of the Court of Justice for the actual implementation of the Treaty setting up the Atomic Energy Community. Whereas legal control is exercised by the Court of Justice, parliamentary control for all three Communities is ensured by the Parliamentary Assembly, to which the Commission is answerable as the supreme executive body. The European Parliament can at any time by means of a two-thirds majority of votes cast force the resignation of the executive body of the three Communities, i.e., the Commissions in the case of European Economic Community and EURATOM and the High Authority in the case of the Coal and Steel Community. A motion of censure, it should be added, cannot be adopted against individual members of the executive body concerned but only against the Commission or the High Authority in a body. What those observers almost certainly had in mind who

questioned the supra-national character of the new Communities was the fact that the Council of Ministers has a vital part to play in putting the Treaty into practice and, consequently, with the executive. The Council of Ministers can be described as the "federative" organ of the Community, the role of which could in American terminology be described as that of a guardian of State rights. There is nothing quite comparable to it in the institutions of the American Constitution. The nearest parallel is probably an institution which is peculiar to the Federal Republic of Germany and is known there as the "Bundesrat". The Council of Ministers is made up of representatives of the governments of the member states, who, however, are expected, when working within the framework of the Council of Ministers, to conduct their discussions and take their decisions not as national representatives but with a view to the interests of the Community. In order to make a proper assessment of the relative importance of the two Community institutions, the Council of Ministers and the Commission, it is not sufficient merely to enumerate their respective powers. The question of how the decisions of the Council of Ministers are made must also be taken into consideration. The fact that, as a general rule, decisions can be made by a majority vote is in line with the supra-national character of the Community. This means that those member states who find themselves in a minority in a particular case have to conform to the will of the majority. This implies a genuine renunciation of sovereignty and is an expression of the supra-national character of the Communities. It must be added that in most cases the Council of Ministers can only take decisions on a proposal of the Commission. If the Council of Ministers intends to depart from the proposal of the Commission, it can only do so by means of a unanimous vote. It is obvious that this provision in practice secures the Commission a considerable share in the making of decisions and that the proposals of the Commission also have a decisive influence on the substance of these decisions. Another factor which must be

5

borne in mind is that the members of the Commission devote themselves full-time and exclusively to their European work, whereas the Council of Ministers as a rule only meets one day a month for its discussions and decisions. This, too, lends greater weight to the work of the Commission than would appear from a mere catalogue of its various spheres of competence. The complex provisions regulating the Commission's right to make proposals, the procedure governing the modification of these proposals, the majority principle in the Council of Ministers and all the other tasks which I shall refer to later and for which the Commission is fully competent, independently of the Council of Ministers - all this shows that the new Communities cannot be aligned with the usual international organizations. The new Communities are distinguished by a number of supra-national features and can, therefore, also be referred to as supra-national.

Article 2 of the Treaty lists the various tasks which are entrusted to the Community. It is to develop research and ensure the dissemination of knowledge. It will facilitate investments and ensure the supply of nuclear fuels. It is to secure by appropriate measures of control that these nuclear fuels are not diverted for purposes other than those for which they are intended. It has to create a common market for nuclear fuels and equipment and provide for the protection of the health of workers and the general public; it is to establish with other countries and international organizations any contacts likely to promote progress in the peaceful uses of nuclear energy. It is interesting to examine the various ways and means which the Treaty provides for solving these various problems. Let me begin by selecting two tasks which are not directly concerned with the development of nuclear technology but which are, nevertheless, designed to create the necessary prerequisites for this development. I am referring to the problems of health protection and control and supervision.

The provisions relating to health protection lay down that basic standards, as they are called, shall on a proposal of the Commission be fixed within one year and shall be binding

on the legislation of the six nations. This was in fact done on January 1. When work was begun on the elaboration of these basic standards by a committee of 12 experts convoked by the Commission and drawn from the six countries, considerable doubts were voiced as to whether a task of this nature could be completed in the short time available and in the present state of knowledge. It is my view that, in performing this task, the Commission has for the first time given evidence of the constructive possibilities inherent in its supra-national character. There is every reason to believe that the establishment of the basic standards, which are now binding within the territory of the six member countries, would have been impossible, if the provisions of the Treaty had not made it imperative to do so. We are very anxious to see similar standards adopted on the broadest possible basis and, to achieve this aim, we are working in collaboration in the framework of a number of large international organizations. I am, however, somewhat inclined to doubt whether it will be possible in any comparable period of time to have similar standards, not merely recommended, but also applied with force of law.

The second problem, the solution of which is a sine qua non of a nuclear industry is that of safety control. This is a particularly clear example of the supra-national character of the Community. In this field, the Commission, as the Community's supra-national executive organ, has very far-reaching powers. It must ensure that nuclear fuels are not used for purposes other than those stated by the users, in order to prevent any misuse. All installations in the territory of the member states in which nuclear fuels are used can be visited at any time by its inspectors.

The Court of Justice of the Community ensures that control and inspection can be carried out without hindrance at all times and in all places. In the event of infringements against the provisions of the Treaty relating to control, the Commission can itself apply sanctions. The full import of these provisions can, I feel, only be properly appreciated if the problem of exercising control over the use of nuclear fuels is seen in a global context. For mankind the question of whether it will one day be possible to exercise complete control over the use of nuclear fuels throughout the world is a matter of the utmost importance. The difficulties involved are clearly shown by the progress so far of the Geneva talks on the cessation of nuclear tests. Obviously, unilateral control is acceptable to no one. It is, however, apparently not easy to work out a formula for a system of control on a strictly reciprocal basis. Hence, it is particularly important that, within the European Community, there is for the first time to be a genuine system of control in the sense that the Commission's inspectors, irrespective of nationality, will be able to carry out their control and inspection duties in every country of the Community. This will be a proof that the fundamental principle and, I should like to add, the only conceivable basis of a global system of control in this field, i.e., absolute reciprocity, is perfectly feasible. In so doing, the Community will be rendering a great service not only to itself but - and of this I am convinced - to other peoples as well. At the talks on the two agreements which the Commission has so far concluded with friendly nations, the significance of our system of control - as I will explain later - was fully appreciated by our friends.

The two great Geneva Conferences have clearly shown that nuclear technology is being carried forward and developed on a broad front throughout the world, the share of individual nations in this progress varying greatly. While it is true that the dis-

coveries of European scientists such as Planck, Einstein, Curie, Fermi and Hahn - to mention only a few of the early pioneers - provided the scientific basis for subsequent developments in this field, it is obvious that the United States, Great Britain and the Soviet Union are way ahead of the countries of Continental Europe in the field of technological development. Among the countries of Continental Europe, too, there are considerable differences in the level of scientific and technological achievement with France undoubtedly in the lead. If the countries of Europe wish to develop a nuclear industry of their own, it is evident that they must take account of the experience of other more advanced countries. Nevertheless, for a variety of reasons, it is obvious that in their own interest and in a spirit of partnership they must make every effort to develop and increase their own contribution in the field of science and research. The authors of the Treaty clearly realized this and made provision for the promotion of research to be one of the most important tasks which the Community, through the Commission, will have to carry out. For this purpose, it has at its disposal a budget of 215 million dollars for the first five years. This will be used partly to finance research contracts but the Commission also intends to use this money to set up a Joint Research Centre in the Community. To tackle both these problems, the Commission has first of all made an inventory of research work in the countries of the Community. The results are gratifying indeed, since they show that there is already a considerable groundwork to build upon, if the word "groundwork" is not too much of an understatement as a description for the numerous research institutions which already exist in the Community.

It already has at its disposal more than 33 research reactors, 19 of which are under construction and 14 have already gone critical. In view of this, we need have no hesitation in concluding agreements of co-operation with friendly nations which are conceived on a basis of absolute reciprocity. It is our hope that, with the help of the research facilities in the Community we shall be in a position to make an ever-growing contribution to research development in this field, a contribution, which the Commission hopes to make in various ways. In the first place, having, as it were, a bird's eye view of the work in progress, it will be able to play a part in coordinating it; and secondly, by using its own resources prudently, it will be able to fill in gaps and help to concentrate and intensify research efforts wherever necessary.

If the Community were solely dependent on its own experience, the Commission would certainly have to devote its attention exclusively to research for some time to come. This restriction on its activities is, however, not necessary, since we are able to fall back on the experience of our friends. This is in fact the substance of the agreement which the Community has concluded with the Governments of the United States and Great Britain. Both countries have made such progress in the development of nuclear technology that the final step towards large-scale industrial plant either can or has already been taken.

I should like to say a few words first of all about the agreement with the United States. The essential part of this agreement is a joint program comprising the construction of approximately six large-scale power reactors with a total capacity of 1,000 MW. To make this figure a little clearer for the non-technician, I should like to add that each of these reactors will produce approximately 1 billion Kwh a year, i.e., 6 billions altogether. For the construction of these reactors the United States will make available not only its experience but

also financial support. This has a twofold aspect. In the first place, the United States Government will give guarantees on the quality of the fuel elements for these reactors. The idea of this is to remove one of the greatest factors of uncertainty in assessing the economic feasibility of the plants. In the second place, the United States Government is providing a 135 million-dollar line of credit at a rate of $4\frac{1}{2}$ %. I mentioned earlier that the agreement was conceived on a basis of reciprocity and you will certainly be asking yourselves whether this assertion is really justifiable in view of the financial clauses. In my opinion, it certainly is. There is no question of these conditions amounting to nothing more than a mere exports subsidy. Our American friends are fully aware that our principal aim is not to produce electricity by means of a new technique. Our intention is rather to build up a nuclear industry of our own, a fact which we have never attempted to conceal. In the United States, as a result of long experience, it is realized that the exchange of goods between industrial nations is not less but in fact generally greater than between the latter and nations with a different economic structure. The logical conclusion is drawn that the development of a European nuclear industry need in no way adversely affect the exchange of facilities and goods in this field in the future and that, consequently, partnership on an equal footing holds out considerable economic prospects. For the agreement, however, there was another vital consideration: the average kilowatt hour produced by conventional means costs less in the United States than in continental Europe, which means that power reactors will be able to compete economically with conventional plants earlier in Europe than in

the United States. And even if it were not possible to run them economically at the present time in Europe, the operation of the same plants in the United States would require much greater subsidies than here. If, therefore, the aim is to build up experience in the running of power reactors, it is much cheaper for the United States to do so in Europe than at home, provided that they do in fact have unrestricted access to the knowledge and experience acquired. From this point of view, the financial provisions in no way prejudice the reciprocal character of the Agreement, they only emphasize the common nature of the interests involved.

Unlike hydro-electric or steam-turbine stations, plants of this sort are not fully-developed industrial achievements. They must be considered more in the light of a first design which is still very much open to improvement. In this context, the Treaty provides for a sum of 100 million dollars to be spent over a period of five years on improving and developing the technology of these power reactors. This sum will be supplied by the United States and the European Atomic Energy Community in equal shares.

I mentioned earlier that we have also concluded an agreement with the United Kingdom. Its scope differs considerably from that of the United States Agreement. It is designed, so to speak, only as a legal foundation for co-operation but it contains no concrete financial provisions for the development of this co-operation. In the field of research, this difference in the text can be easily explained. We have agreed with Great Britain to work together within

the framework of the OEEC on the development of a joint research project in the field of the gas-cooled high-temperature reactor. Eighty-six percent of the expenditure for this project is to be borne equally by Great Britain and EURATOM. There is no joint program for the construction of power reactors. I should like, however, to make it quite clear that the Commission is very anxious to have reactors of the type developed in England, i.e., the gas-cooled type, constructed in the Community, and it is my view that, in addition to the joint program to be developed with the United States, there is ample room for this possibility. The reason for our interest in a program providing for the trying out of a wide variety of types is that we believe that it is still too early to say which reactors will be best suited to our purposes. This can only be found out through experience.

You may be somewhat surprised that I sketch the future development of the nuclear industry of the Community in such rough outlines and that I do not lay before you a clearly-defined program with all the relevant facts and figures. There are several reasons for this. In the first place, it is not the Community's task to construct and operate power reactors on its own. This means that the Commission is not involved itself in the controversy about the public or private operation of powerplants. It is up to the member states to decide how they want to organize their power production. We are going to work together with all power producers, both private and public. At the same time, however, the decision on what plants to construct rests solely with the power producers themselves. In discussing the development of the future capacity of the nuclear industry, we have to rely on estimates based on the intentions of the power producers and

on an assessment of future supply and demand.

We believe that the primary requirement is to provide a first generation of reactors of the most varied types in order to gain experience. When in a few years' time, the first power reactors prove, as we hope they will, on the basis of operating experience to be competitive energy producers as compared with conventional sources, the time will have come to consider the share which should be allotted to nuclear energy in the future production of power. At the present time, it is not too easy to consider these questions objectively because the current crisis in the mining industry of the Community, with all the social repercussions involved, renders this difficult. I do not think, however, that the present situation will lead anyone to suppose that the problem of meeting Europe's energy requirements will be one of disposing of surpluses. Even though during the past year there has been a period of stagnation in the development of total power consumption in a number of countries, nevertheless the specific consumption of electrical energy continues to rise even at the present time. Total requirements will also increase further in the future in spite of the successes achieved by rationalisation. The great difference between the per capita consumption of electrical energy in the United States with 4,180 Kwh and the Community with 1,308 Kwh shows what possibilities are open to us here. Short-term forecasts are probably more difficult to make than long-term ones. If, as we confidently hope, the operational experience of the first generation of power reactors proves that they can be run economically, I am convinced that we will be able to reckon with the utilization of nuclear energy being comparable in extent within a period of 20 years to the conventional sources of any energy now.

May I in conclusion say how glad I am to have had this opportunity here in Italy particularly, a member state of the Community, of giving this short account of the work of the European Atomic Energy Community. As you know, the Commission of the European Atomic Energy Community visited Italy in January of this year. This visit confirmed us in our belief that Italy is particularly alive to the importance of the European idea. All the talks we had provided fresh evidence that there is a general readiness in Italy to contribute to the common effort within the framework of the European Atomic Energy Community. Everything we saw showed us that Italy has all the necessary prerequisites to enable it to develop a nuclear industry and thus - to quote Article 1 of the EURATOM Treaty - to contribute to the raising of the standard of living. We are, therefore, particularly gratified that provision has been made under the EURATOM-USA Agreement for the construction of a large-scale power reactor in Italy. I trust that with this decision a good start has been made for the implementation of the EURATOM - USA Agreement, and one that will not fail to have some influence on the decisions to be made in other countries of the Community.

Thank you.