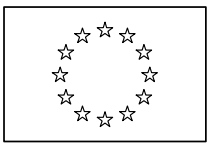

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COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT

50 YEARS OF THE EURATOM TREATY

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25 March 2007 marks the 50th anniversary of the signing of the Treaties of Rome, the basis of the European Economic Community, now the European Community, and the European Atomic Energy Community, often referred to as Euratom. This anniversary provides an opportunity to consider the main 'Euratom rules' with a view to better future action.

1. INTRODUCTION

The European Atomic Energy Community ("the Community") was created to establish the conditions for the development of nuclear energy in Europe by sharing resources (funds, knowledge, materials, experts, etc), protecting the general public and associating other countries and international organisations with this work. The interest generated by the Euratom Treaty in some States encouraged them to participate in the wider project of the common market, the negotiation of which took place at the same time as that of the Euratom Treaty.

The Community was given a large number of tasks in order to meet its objectives:

- to develop research and ensure the dissemination of technical knowledge;
- to establish uniform safety standards for the health protection of the general public and workers, and to monitor their application;
- to facilitate investment and ensure the establishment of the basic installations necessary for the development of nuclear energy in the Community;
- to ensure that all users in the Community receive a regular and equitable supply of ores and nuclear fuels;
- to make certain, by appropriate supervision, that nuclear materials are not diverted to purposes other that those for which they are intended;
- to exercise the right of ownership conferred upon it with respect to special fissile materials;
- to create large markets and access to the best available technical means by establishing a common nuclear market;
- to establish relations with third countries and international organisations to foster progress in the peaceful use of nuclear energy.

2. EURATOM TREATY LAW

2.1. The promotion of research and dissemination of knowledge

Article 7 of the Euratom Treaty introduced the concept of Community research programmes (framework programmes) into Community law. The first programmes are now far behind us. The Sixth Euratom Framework Programme for the period 2002-2006 enabled EUR 1 230 million to be invested in Euratom Community research, technological development, international cooperation, the dissemination and exploitation of knowledge and training to ensure safe usage and innovation in the field of nuclear energy and in the medical and industrial applications of ionising radiation.

This programme also partly financed the nuclear activities of the Joint Research Centre (JRC). The JRC has its origins in the Euratom Treaty (Article 8). Today it conducts its nuclear and non-nuclear activities at seven research institutes situated in Germany, Belgium, Italy, the Netherlands and Spain.

The 50th anniversary of the Euratom Treaty will see the start of the Community's Seventh Research Framework Programme (2007-2011), which has a budget of around EUR 2 750 million. Just under one-third of this is earmarked for research in the field of nuclear fission, to be carried out either by means of a programme of indirect actions or by the JRC, focusing on the safe exploitation and development of fission reactor systems, the management of radioactive waste, radiation protection and safety and security related to non-proliferation. Nearly two-thirds will go towards research in the field of energy fusion. The importance attached to fusion can be explained by the fact that the European Union, through the Community, is taking part in the *International Thermonuclear Experimental Reactor* (ITER) project developed with China, South Korea, the United States, Japan, India and Russia. This follows on from the research which has been carried out by the Community in this field since the first Community research programme and which enabled the *Joint European Torus* (JET, Culham) to be set up in 1978, the results of which have been an essential step forward in the advances in fusion energy.

2.2 Protection of the health of workers by basic standards

A substantial body of Community rules has been developed with regard to health protection enabling a high level of protection to be established based on present scientific knowledge, as reflected internationally in the work of the International Commission on Radiological Protection, the International Atomic Energy Agency, the Scientific Committee on the Effects of Ionising Radiation, the World Health Organisation, the International Labour Organisation and the Nuclear Energy Agency of the OECD.

Produced with the assistance of a group of scientific experts (Article 31), the basic radiation protection standards today comprise a coherent set of more than twenty different instruments, including six directives. These lay down in particular strict obligations concerning the authorisation of practices, surveillance of the working conditions and environment of exposed workers, including radiation protection, medical surveillance, training and information for workers, and concerning the protection of the general public in order to provide surveillance of and reduce as far as reasonably possible the effects of such activities on the public.

The basic standards cover all situations which might lead to exposure of the general public and workers to ionising radiation and deal not only with the main field of the production of

nuclear power but also with all other applications of ionising radiation in industry and medicine, exposure for medical purposes being the main source of exposure of the general public to artificial radioactivity. The basic standards take account of the fact that workers and the public may be exposed to natural radioactivity in situations which may require action on the part of the authorities and employers.

The protection of the environment has also been an underlying aspect of the Treaty since it was first adopted, making it in some ways a pioneer in this field. It therefore requires the Member States to send the Commission general information about any plans for the disposal of radioactive waste before authorising them so that the Commission can determine their future impact on the environment of other Member States. The Treaty also obliges them to establish a system for the continuous monitoring of the level of radioactivity in the environment and to send the monitoring data to the Commission. The Commission systematically checks the operation and efficiency of these national monitoring facilities. The results of the monitoring carried out by the Member States, and of the checks made by the Commission, are published.

Following the Chernobyl accident in 1986, Community provisions were adopted in order to lay down requirements for the importation of agricultural products from the region where the accident occurred. The Community is helping to make the accident site itself safe, in particular by contributing to the Chernobyl Shelter Fund. It is also providing assistance for the people in this area (CORE and ETHOS programmes).

This event also prompted a unanimous international response which led to the adoption of important international agreements in the field of nuclear safety and security to which the Community is a party. The Community has also strengthened the Community framework for action in the event of radiological emergencies or nuclear accidents by laying down clear obligations for the Member States and operators as regards the establishment of emergency plans for the Member States, localities and installations and for information for the general public. A Community arrangement for the exchange of information which operates round-the-clock has also been established (ECURIE).

2.3. The Community perspective on investment in the nuclear sector

The Euratom Treaty confers on the Community a number of different powers to encourage, coordinate and focus national stakeholders' investments in the nuclear field from a Community perspective.

To this end, the Commission is required to publish an illustrative nuclear programme for the Community (PINC) at regular intervals. This programme must provide guidance in particular in terms of the objectives of nuclear power production and the investment involved in achieving them. Since 1958, the Commission has published four PINCs. The fifth one was adopted on 10 January 2007 in the framework of the overall package of measures establishing a new energy policy for Europe to combat climate change and to strengthen the energy supply and competitiveness of the EU and follows on from the latest (2006) Commission Green Paper *A European Strategy for Sustainable, Competitive and Secure Energy*.

In addition, companies which have nuclear investment plans are required to notify them to the Commission for it to express its opinion on them. More than 200 plans have been submitted to the Commission, the most recent of them concerning the replacement of equipment in existing installations and the construction of new reactors in Finland and France.

Euratom loans, introduced by the Council in 1977, have made it possible to contribute to the financing of nuclear power stations in the EU. Between 1977 and 1994, 87 loans were granted. They have been repaid in full by the Member States to which they went. Since 1994, loans granted have mainly been intended to improve the safety and security and efficiency of the nuclear power stations of non-member countries. Three loans have been granted, to Bulgaria, Romania and Ukraine.

The Euratom Treaty also introduced into Community law the "joint undertaking" concept. Having their own legal personality, these undertakings are designed to carry out specific projects which are of prime importance for the development of the nuclear industry in the Community. Eight joint undertakings were set up between 1961 and 1978, the latest being for the construction and operation of JET. It is planned to set up a new joint undertaking to pave the way for EU participation in the ITER project. A joint undertaking is an instrument to support innovation. It was incorporated into the EC Treaty by the Single European Act and today enables the *Galileo* project to be based on such a structure.

2.4. Regular and equitable supplies for all users

The Community is responsible for ensuring that all users receive regular and equitable supplies of ores and nuclear fuels. The monitoring of supply, as provided for in Chapter VI, Title II, of the Euratom Treaty, is based on the Euratom Supply Agency, which was designed to be the central and sole supplier of nuclear materials in the Community in order to channel and balance supply and demand.

The Agency has its own legal personality and financial autonomy and is supervised by the Commission. It is assisted by an advisory committee made up of stakeholders in the nuclear materials market. To fulfil its function, it chiefly has a right of option which it may exercise to acquire any ore, source material or special fissile material produced in a Member State and the exclusive right to conclude contracts on the supply of such materials whether from within or outside the Community. Therefore, in order to be valid under Community law such contracts must be approved by the Agency.

The Agency also plays a practical role in particular by supporting Community companies during negotiations with undertakings in third countries and by publishing reference data. Moreover, the surplus of nuclear materials on the world market at very low prices in the early 1990s created by the opening up of the former Soviet area prompted the Agency, with the support of the Court of Justice, to refuse to approve contacts considered contrary to the common supply policy. That policy provides in particular for the geographical diversification of supply sources and is intended to avoid the EU being dependent on a single supply source.

2.5. Safeguarding the peaceful use of nuclear materials

Euratom safeguards (Chapter VII, Title II of the Treaty) are designed to ensure that the ores, source materials and special fissile materials are not diverted from their intended uses as declared by the users and that the provisions relating to supply and any particular safeguarding obligations assumed by the Community under an agreement concluded with a third State or an international organisation are complied with. The Commission has the power to exert this control and the obligation to do so, which it has honoured for 50 years. The safeguards apply to all nuclear materials within the territory of the Community from the moment they are extracted or imported.

The Commission has ensured that operators fulfil their obligations under the Treaty itself and the successive implementing regulations. The most recent such regulation was adopted in 2005 and the adjustments made to it are intended to take account of EU enlargement, changes in nuclear industry technology and information technology as well as legislative changes.

A body of inspectors was quickly set up (1960). In 2006, it had 180 members. The Treaty guarantees them access at all times to all places and data and to persons who, by reason of their occupation, deal with materials, equipment or installations subject to the safeguards. The Community's nuclear installations are periodically inspected.

The Commission has also made use of the coercive instruments provided for in the Treaty where infringements have been detected in this field by bringing proceedings directly against the Member State concerned for failure to fulfil an obligation (Article 141), by means of the *ad hoc* procedure provided for in Article 82 (one case) and by taking one of the measures provided for in the Treaty directly against operators (Article 83), such as issuing a warning (seven cases) or placing the undertaking under temporary administration (one case).

In the framework of the Non-Proliferation Treaty of 1 July 1968, tripartite agreements have been signed, on the one hand, between the Member States which do not possess nuclear weapons, Euratom and the International Atomic Energy Agency (IAEA) and, on the other, between each of the two EU Member States which do have nuclear weapons and the same organisations. These three tripartite agreements make it possible to coordinate Euratom's role in this field with that granted to the IAEA under the Non-Proliferation Treaty. These agreements were amended and reinforced by additional protocols in 1998.

2.6. International relations

The Community has been designed as an organisation open to the world mandated to establish with other countries and international organisations "such relations as will foster progress in the peaceful uses of nuclear energy" (Article 2).

The history of the application of Chapter X, Title II, of the Euratom Treaty is such that the Community's international relations can be likened to a mirror image of the changes which have occurred in the way the Euratom Treaty has been applied as a whole, beginning with research into technological development, which was followed by commercial expansion and then international cooperation in all competence areas, in particular in the fields of innovation, nuclear safety and security, radiation protection and non-proliferation.

Thus, the Community has signed cooperation agreements on peaceful uses of nuclear energy with a large number of third countries, including the main suppliers in this field: the United States of America, Canada, Australia, Argentina, Uzbekistan, Ukraine, Japan and Kazakhstan. Preparation are being made for negotiations with Russia. Research agreements have been signed with Russia, Ukraine, Kazakhstan and the USA.

The Community has also given its firm commitment at international level by becoming a party to the main international agreements in the nuclear field: the Convention on the Physical Protection of Nuclear Materials (1991), the Convention on Nuclear Safety (2000), the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (2006), the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the case of a Nuclear Accident or Radiological Emergency (2006).

Safety and security within the EU are also dependent on safety and security beyond its borders. The launch of a dialogue with the countries of the former Soviet zone on the safety and security of their nuclear installations has formed the basis of intense international cooperation with a view to improving nuclear safety and security throughout the world by both regulatory and technical means. In the EU, this has led to technical assistance and cooperation programmes with the central and eastern European countries and the new independent States (Phare and Tacis) based on the EC Treaty. The Euratom Treaty should form the legal basis for the instrument to provide assistance on nuclear safety and security which will follow the Tacis programme, which made the greatest contribution to the improvement of nuclear safety and security in the ex-Soviet States.

Since 2003, the Community has been participating in the Generation IV International Forum (GIF) and it recently concluded the International Framework Agreement for International Collaboration on Research and Development of Generation IV Nuclear Energy Systems. Its accession to the Multilateral Nuclear Environmental Programme in the Russian Federation (MNEPR) is in hand.

Lastly, the Community, represented by the Commission, while preserving all its specific characteristics, maintains cooperation ties at different levels with the specialised agencies of the United Nations, the Council of Europe and the OECD, organisations which are explicitly referred to in the Treaty. Since its inception, and in particular since 1975, the Community has cooperated with the IAEA. Their ties will become closer in the new global context in which the use of nuclear energy calls for parallel efforts in terms of safety, security and non-proliferation.

3. CONCLUSION AND PROSPECTS

The results of the activities conducted for 50 years under the auspices of the Euratom Treaty can be regarded as extremely positive. The Treaty has enabled the Community to carry out important activities in a strategic sector, in particular in terms of energy supply for the EU. It is recognised as having made significant achievements in the field of research, the protection of health, safeguarding the peaceful use of nuclear materials and international relations.

Thanks to the Euratom Treaty, the Community is contributing to scientific progress through its support for research and innovation. It ensures the application of high radiation protection standards for the public and accompanies new initiatives in the nuclear field. It provides an overall approach to investments in this sector. It ensures regular and equitable supplies for users of nuclear materials in the Community and strictly safeguards the peaceful use of nuclear materials. It has become an international player in this sector.

The Euratom Treaty has formed the basis of Community activities relating to the nuclear power cycle as well as of other activities which use radioactive substances for research, industrial and medical purposes (research, radiation protection rules, etc). Euratom rules are therefore a factor in the everyday lives of the citizens of all the Member States.

Since 1957, the institutional and procedural aspects of the Euratom Treaty have been amended in line with changes made to the Communities, following European Union, and the various enlargements, even though more ambitious proposals for review of the Euratom Treaty have been made, in particular by the Commission. The Community has nonetheless been incorporated into the development of the EU and constitutes part of its first pillar. However, since the provisions of the Treaty entered into force, the political, economic and

technological context in which they have been applied has continually evolved, creating new challenges and facilitating, but sometimes hampering, Community action. This explains why some provisions have only been partially applied. By way of example, the Euratom Supply Agency, which has been operating since 1960, has had to adapt its powers in the appropriate manner.

In this regard, the Commission has played a leading role, inasmuch as its powers have allowed, to propose and ensure that the Treaty's resources have been applied since 1 January 1958 in accordance with the needs of, and the situation in, the EU. In this effort, the Commission has been supported on numerous occasions by the judgments of the Court of Justice of the European Communities. The Commission has reacted in a particularly intensive manner during the last few years, for example, by proposing to supplement the Community legal framework for the safety and security of nuclear activities ("nuclear package") which the failure to secure a qualified majority in the Council always prevented from being adopted. The need for such a common framework, as stressed in the Court of Justice's judgment of 10 December 2002 in Case C-29/99, was clearly highlighted during the latest EU enlargement, where nuclear safety and security was an issue on the agenda of the negotiations and led to commitments being given for the decommissioning of several reactors with substantial financial support from the Community.

The longevity of the initial provisions of the Euratom Treaty shows how up-to-date several of them still are. Well after 1957, they inspired or anticipated the development of other fields of Community law, such as the provisions of the EC Treaty on research and technological development (framework programmes, joint undertakings, etc). Similarly, even if the institution of university status provided for in the Euratom Treaty (Article 9) has not yet been established as such, the Commission has been the driving force behind the development of the European Nuclear Education Network (ENEN). A qualification as European Master of Science in Nuclear Engineering is now available. With the Commission now proposing a regulation for the establishment of a European Institute of Technology on the basis of the EC Treaty, many lessons can be drawn from this experience in the nuclear field.

The Euratom inspections carried out since 1960 paved the way for Community inspectorates in other fields (air safety, maritime safety, etc). The provisions which permit Community surveillance of environmental radioactivity and recognise the parallel between the Community's internal and external powers (Article 101) also bear witness to this.

In 1957, expertise in nuclear technology was regarded as a key factor in creating the conditions for peace and sustainable prosperity in a Europe which was being rebuilt and a world which was marked by the Cold War. In particular it allayed fear of an energy shortage at a time when coal production was in decline and oil consumption was increasing. This fear was heightened by the Suez crisis. Countries wanted to minimise their dependence on external conventional energy sources but also their technological dependence on more advanced third countries. These concerns, expressed in different terms, also have resonance at the present time.

The ongoing debate on the definition of European energy policy centred on competitiveness, security of supply and environmental concerns provides an opportunity to consider future Euratom action. Today, nuclear energy is a reality within the EU and elsewhere. The present race to secure energy resources presents new challenges for this energy source. The Euratom Treaty contains the main provisions which enable the EU to act in this field. Imperfect as it is, the EU, the Member States and the public need it.

In future, the application of the Euratom Treaty must continue to focus on nuclear safety and security. Recent enlargements have strengthened the diversity of the EU landscape in the field of nuclear energy and the need for Community action, as shown by the PINC adopted on 10 January 2007, in particular to ensure the protection of health and the environment and to avoid any malicious use of nuclear materials. Using the resources provided by the Euratom Treaty in this respect benefits all the Member States.

Similarly, the safety and security of nuclear installations and protection against ionising radiation in third countries are also very important issues. A new instrument for international cooperation in this field, based entirely on the Euratom Treaty, will soon be applicable.

The Commission would stress that it is important to maintain a technological lead in the nuclear field and supports the development of the most advanced framework in this area, including in the fields of the safety and security of existing and future installations, non-proliferation, waste management and decommissioning. The Community will therefore be required to continue providing help to support the development of the nuclear industry and to guarantee compliance with the highest radiation protection, safety and security standards for all uses of radioactivity in order to help raise the standard of living and increase the quality of life of people in the EU, whatever forms of energy individual States may choose, as well as beyond the EU's frontiers in collaboration with third countries and international organisations.