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## EURATOM: EURATOM SUPPLY AGENCY AND NUCLEAR SAFEGUARDS

**Signed:** 25 March 1957

**Effective:** 1 January 1958

**Membership:** 28 member states of the [European Union](#) — Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and United Kingdom. The process of enlargement of the European Union was launched on 30 March 1998.

### [Euratom Treaty \(text\)](#)

**Background:** In 1957, Belgium, France, Germany, Italy, Luxembourg, and the Netherlands, “realizing that nuclear energy constitutes the essential resource for ensuring the expansion and invigoration of production and for effecting progress in peaceful achievements,” signed a treaty establishing the European Atomic Energy Community (EURATOM). This treaty, which covers all civil nuclear activities in the European Union, is designed to provide a common market in nuclear materials, to guarantee a supply of nuclear fuels, and to ensure that nuclear materials are not diverted from their intended purpose. It also allows EURATOM to establish contacts with other countries to promote progress in the peaceful uses of nuclear energy. Within the European Union (EU), [International Atomic Energy Agency \(IAEA\)](#) safeguards are implemented under a number of specific agreements: INFCIRC/193 (non-nuclear weapon states, or NNWS), INFCIRC/263 (United Kingdom), and INFCIRC/290 (France). The IAEA carries out inspections in close cooperation with inspection teams from EURATOM.

The Treaty of Rome, which established EURATOM under its aegis, became effective in 1958. This branch of the EU, which provides a framework for nuclear energy development in the Member States, has developed an independent and comprehensive regional nuclear safeguards system.

### **Directorate General for Energy and Transport**

Within the European Commission, this Directorate General is responsible for implementing EURATOM

Safeguards, and has been in operation since January 1, 2002. DG Energy and Transport is headed by a Director General and consists of eleven Directorates, two of which are focused on nuclear energy and nuclear safeguards. In addition, the EURATOM Supply Agency (ESA) is under the direct supervision of the Director General. As of February 2011, the DG for Energy is Philip Rowe.

**EURATOM Supply Agency (ESA):** Title II, chapter 6 of the EURATOM treaty lays down the legal basis for the establishment of ESA, whose Statute was adopted in 1958. In January 2008, the European Council decided to amend the 1958 Statute and set new objectives and tasks for ESA. To that end, the Council Decision of 12 February 2008, establishing Statutes for the EURATOM Supply Agency (2008/114/EC, Euratom) was adopted and entered into force on 6 March 2008.

Operating within the office of the DG for Energy and Transport, ESA’s aim is to perform the tasks entrusted to it by the EURATOM treaty, which include ensuring a regular and equitable supply of nuclear fuels for Community users.

Article 52 of the EURATOM treaty gives ESA the right to acquire ores, source materials, and special fissile materials produced in the community and an exclusive right to conclude contracts for the supply of such materials from inside the community or from outside. In order to be valid under community law, supply contracts must be submitted to ESA for conclusion.

According to Article 1 of the 2008 Statute, ESA shall perform the following tasks:

- (1.) Provide the Community with expertise, information and advice in subjects connected with the operation of the market in nuclear materials and services,
- (2.) Play a market-monitoring role by monitoring and identifying market trends that could affect security of the European Union’s supply of nuclear materials and services,

(3.) Seek the advice of, be supported by and act in close cooperation with its Advisory Committee.

ESA carries out its tasks under the responsibility or supervision of three bodies.

First, according to Article 3 of the Statute, the responsibilities of the Director General of ESA include:

- (1.) To ensure the performance of the tasks listed in Article 1.
- (2.) To exercise the right to conclude supply contracts for nuclear materials and its right of option.
- (3.) To keep the Committee regularly informed and to consult on any other matters under the Committee's competence.

Second, the European Commission supervises ESA and it may issue directives to it and has the right of veto over its decisions. The Commission also appoints the Director General of the ESA.

Finally, Article 11 of ESA's Statute provides for the establishment of a Committee, which is composed of 56 members from the Member States of the Union. The selection of the committee members takes into account the financial participation of the Member States in ESA's capital and also the State's relevant experience, expertise and/or activities in fields such as trade in nuclear materials and services of the nuclear fuel cycle or nuclear power generation. Member States select their representatives on the basis of their relevant experience and expertise in the nuclear field.

According to its terms of reference, contained in ESA's Statute, the Committee shall assist ESA in carrying out its tasks pursuant Article 1 of the Statute by giving opinions and providing analyses and information. In addition, the Committee shall be consulted in other matters, including:

- (1.) The capital of the Agency.
- (2.) The conditions applicable to the building up and withdrawal of commercial stocks by ESA.
- (3.) The annual report.

The current Director General of the ESA is Philip Lowe.

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### **Nuclear Safeguards**

According to Article 1 of the EURATOM Treaty, the task of EURATOM Safeguards is to make certain that nuclear materials are not diverted to purposes other than those for which they are intended. In addition, according to Article 77 of the treaty, EURATOM Safeguards aim to ensure compliance with safeguarding obligations under an agreement concluded with a third States or an international organization.

Article 78 and 79 of the treaty obliges operators of nuclear facilities to supply the European Commission with information about their facilities and the nuclear material in their possession. Furthermore, according to Article 81 of the EURATOM Treaty, the Commission may send inspectors anywhere in the European Union, and they have shall access to all places and data and to all persons who, by reason of their occupation, deal with materials, equipment or installations subject to safeguards.

Article 83 of the treaty provides for the imposition of sanctions by the Commission in the event of infringement of the Treaty's safeguards provisions. These sanctions can range from a published written warning to withdrawal of the nuclear material concerned.

### **Relationship with the IAEA**

In 1973 the IAEA and EURATOM concluded a safeguards agreement in connection with the Treaty on the Nonproliferation of Nuclear Weapons. (INFCIRC/193). This safeguards agreement is based on INFCIRC/153 (corrected), and includes a protocol. This Protocol specifies the conditions and means according to which co-operation in the application of safeguards shall be implemented. The protocol aims to avoid unnecessary duplication of EURATOM's safeguards activities. In 1998, EURATOM concluded an Additional Protocol to the safeguards agreement with the IAEA, and it entered into force on 30 April 2004.

Before joining the European Union, a number of countries had concluded safeguards agreements with the IAEA. These agreements were suspended when these countries joined the EU, and the 1973 EURATOM safeguards entered into force.

## Developments:

**2014:** On 5 March, the EU Commission released a [memo](#) on its support to Ukraine, particularly in the areas of “nuclear safety and security.”

On 11-14 May, the [European Nuclear Conference](#) was held in Marseille, France, to discuss “Nuclear technology issues, opportunities and challenges.”

On 19 May, Ukraine's Parliament ratified the Euratom/ERBD loan to Energoatom with loans totaling over €600 million, to improve the operation safety and reliability of Ukraine’s nuclear power plants.

On 21 May, President of the EU Commission José Manuel Durão Barroso made a [statement](#) discussing developments toward a European Energy Security Strategy, citing the need for a less vulnerable energy infrastructure and mentioning nuclear energy as a means to avoid “excessive dependence from non-European suppliers.”

On 16-17 June, the European Nuclear Energy Forum [met](#) for its 9<sup>th</sup> plenary meeting in Bratislava to present working group activities and discuss measures for EU atomic energy policy. Areas of interest included liability costs in the case of nuclear accidents, nuclear power in the context of EU energy and climate strategy, environmental issues, and the safety of nuclear power plants, among others.

On 8 July, the EU adopted a [revised Nuclear Safety Directive](#). The new directive amends the one in force since 2009, providing a stronger framework for EU nuclear safety, as called for by the EU Heads of State or Government following the 2011 nuclear accident in Fukushima

On 22-26 September, the 58th General Conference of the IAEA was held in Vienna, where the General Director for Energy at the European Commission, Mr Massimo Garribba, gave a [statement](#) on behalf of the Euratom Community.

On 23 October, during the Symposium on International Safeguards held in Vienna, the Security Analyst at the European Commission, Johan Stronkhorst presented [the Security Plan for the joint EURATOM/IAEA remote monitoring network](#).

**2013:** On 25 January the first Senior Officials meeting, bringing together officials from the European External Action Service, the European Commission, and the IAEA, took place in Brussels where they decided on a new cooperation [mechanism](#).

On 22 May, President of the EU Commission José Manuel Durão Barroso called for the swift implementation of important energy proposals on the table at the European Council. Barroso focused on five areas that needed action from the Commission, including the EU’s internal energy market, innovation and infrastructure, a commitment to greater energy efficiency, exploitation of renewable sources in a more affordable manner, and diversification of supplies.

On 30 and 31 May, the European Nuclear Energy Forum held its 8<sup>th</sup> plenary meeting in Prague, Czech Republic.

On 13 June the European Commission proposed [amendments](#) to the 2009 nuclear safety directive, including the creation of legally binding nuclear stress-test reviews every six years.

On 24 July, EURATOM released the [results](#) on a public consultation regarding areas of reinforcing the existing EURATOM nuclear safety legislative framework. Key amongst the findings was a 76% response for the need to reinforce the existing legislative framework. This included enhancing emergency preparedness and response, and the need for common rules on nuclear liability.

On 30 July, EURATOM launched a public consultation on [insurance and compensation of damages caused by accidents of nuclear power plants and nuclear liability](#). Critical to the study is the disparity between operator liability and financial security.

On 16 December, the Council of the European Union [adopted](#) the EURATOM program for nuclear research activities, which covers research of fusion energy, nuclear fission, safety, and radiation protection. It also concerns nuclear waste management, environmental impact, and security.

**2012:** On 14 and 15 May, the European Nuclear Energy Forum held its 7<sup>th</sup> plenary meeting in Bratislava.

The purpose of this meeting was to discuss the need for new nuclear safety architecture in Europe, the society's expectations in terms of information and involvement and the prospects for nuclear energy in the EU in the medium to longer term, including generation IV reactors. The keynote speech of the meeting was on the accident of Fukushima and what can be learned from the accident. The next plenary session of the European Nuclear Energy Forum will convene in Prague in May 2013.

On 28 November, the EU Commissioner for Energy, Günther Oettinger, delivered a statement welcoming the rapid decisions on infrastructures. He said that the infrastructure will help to create a "true European market where energy systems are physically connected with each other."

On 3 December, the [Energy Council](#) was held in Brussels. The Ministers at this meeting are responsible for adopting a set of Council resolutions on renewable energy and will continue sharing views on the issue of energy. Furthermore, this council will develop guidelines for trans-European energy infrastructure.

**2011:** On 15 and 16 March, EU Commissioner for Energy Günther Oettinger [spoke](#) before the European Parliament's Energy and Environment Committees on plans to implement nuclear stress tests for the EU's 143 nuclear plants. The tests will take into account risks such as flooding, earthquakes, aircraft accidents, cooling system stability, local electricity supply failure, as well as cyber and terrorist attacks. The tests will likely be conducted in the second half of the year. During his appearance, Energy Commissioner Oettinger also noted concerns that the EURATOM treaty was out of date and was "glad it was up for review."

On 17 March, the Commission [adopted](#) a proposal to extend the budget of the Seventh Programme for Research (FP7) to 2013 in order to "allow the continuation of current research work, aimed notably at improving nuclear safety and radiation protection."

On 11 May, the European Commission for Energy released a memo detailing aspects of the planned nuclear stress tests. In a [press conference](#) on 19 May, Energy Commissioner Oettinger said the EU should reach an agreement on stress test parameters soon, with the first tests beginning as soon as 1 June.

On 19-20 May the European Nuclear Energy Forum held its 6th plenary meeting in Prague. The 300 high-

ranking participants exchanged views on the safety and risks assessment of the Nuclear Power Plants in the EU, challenges for investing in a low carbon electricity system, and the transparency aspects involved.

On 25 May, the Commission and Member States [agreed](#) on the logistics for the nuclear stress tests. The EU also released a [memo](#) detailing the aspects of the nuclear stress tests. Natural disasters, man-made failures and actions, and terrorist prevention capabilities will be assessed, with tests beginning no later than 1 June. All 143 EU nuclear power plants will take part in the tests.

On 23 June the European Parliament voted for the approval of the total ban on exports of radioactive waste proposed by the European Commission in November 2010. Under this proposal the export ban has already been completely enforced in the African, Caribbean, and Pacific countries as well as Antarctica.

On 19 July, the Council of the European Union [adopted](#) the "radioactive waste and spent fuel management directive" committing EU member states to bury radioactive waste from the EU's 143 nuclear power plants in secure bunkers. Member states have until 2015 to submit national programmes.

On 16 September, the Commission adopted the 1st Situation Report on Education and Training in the Nuclear Energy Field in the European Union. The report provides a comprehensive picture of the situation of human resources in the nuclear energy sector in the EU, identifies the current challenges, and presents the spectrum of both current and planned EU, national and international initiatives in this field.

On 24 November, the EU [reported](#) that its voluntary nuclear power plant stress tests are "well on track" and the first findings of the tests are being analyzed.

**2010:** On 11 January, the International Atomic Energy Agency (IAEA) and the European Commission reached an agreement to implement integrated safeguards at all non-nuclear weapons States of the European Union that have significant nuclear activities. The implementation of integrated safeguards is intended to reduce the inspection burden on both the States and the IAEA.

On 28 January, Energy Commissioner Andris Piebalgs welcomed the establishment of the European Nuclear Energy Leadership Academy (ENELA) by six nuclear energy companies. ENELA will be based

near Munich, Germany and is aimed at attracting university graduates to the nuclear energy sector and training them to be future leaders in the field.

On 6 August, the Commission adopted a Communication to the European Parliament and Council on the ionization of radiation and its medical applications. It noted how radioisotopes were in short supply and [stated](#) that it was “of crucial importance to provide incentives for further research reactors to contribute” to the production of ionized radiation.

On 3 November, the Commission proposed safety standards for disposing of spent fuel and radioactive waste from nuclear power plants and medicinal and research labs. It [called](#) for the establishment of “an EU legally binding and enforceable framework to ensure that all Member States will apply the common standards developed in the context of the [IAEA] for all stages of spent fuel and radioactive waste management.”

On 10 November, the Commission presented its [strategy](#) for European energy security towards the year 2020. The report emphasized that the “renewed interest” in nuclear energy should also be met with research on safe radioactive waste management. It stressed the importance of maintaining the EU’s role as a “world leader in developing systems for safe nuclear power” and transport. It also encouraged further Member States compliance with international nuclear safety and security standards.

In 2010, EURATOM’s Sixth Framework Programme (FP6) released several project handbooks ([.zip](#)) for managing contaminated food and water, as well as inhabited areas following a radiological incident. FP6 (research group, 2002-2006), also released further materials and has since been replaced by FP7, scheduled to conduct nuclear research and development from 2007-2011.

**2009:** On 6 April, it was reported that EURATOM’s Joint Research Center was in the process of studying “the feasibility of a project to establish a European nuclear security training center.” The proposed locations for the center would be Karlsruhe, Germany, which would study “response and forensics,” and Ispra, Italy, which would cover the detection of nuclear materials. According to EURATOM officials, the study will be completed by late 2009 or early 2010.

On 22 April, the European Parliament voted to endorse the European Commission’s draft Directive to

establish a Community framework for nuclear safety. The measure passed by a vote of 511-116, with 36 abstentions.

On 9 June, EURATOM and the Brazilian government reached an agreement to cooperate in the field of nuclear fusion energy research. The agreement “provides for exchange of scientific and technical information, exchange of scientists and engineers, promotion of seminars, and conduction of studies and projects,” and will involve investment in the construction of a nuclear fusion laboratory in Brazil. The terms of the agreement are expected to be finalized and signed at the next Brazil-European Union Summit in October 2009.

The European Union Council adopted a decision to allow the European Commission to commence negotiations on a nuclear cooperation agreement between Euratom and India on 14 September 2009. The agreement would provide for cooperation on research and training dealing with the peaceful uses of nuclear energy.

On 6 November EURATOM and India signed a cooperation agreement in the field of fusion energy research. The agreement was signed at the EU-India Summit in New Delhi by the European Commissioner for External Relations and European Neighbourhood Policy Benita Ferrero-Waldner and Dr. Anil Kakodkar, Chairman of the Indian Atomic Energy Commission (AEC). The agreement will complement the activities already established in the multilateral framework of ITER.

On 27 December EURATOM and Brazil signed a cooperation agreement in fusion energy research. EURATOM hopes this agreement will work toward the involvement of Brazil in the international fusion project ITER.

On 22 December, the Council of the European Union adopted a mandate on the negotiation of a partnership agreement for the peaceful use of nuclear energy between EURATOM and the Russian Federation. The negotiations will work toward EU-Russian relations in the energy sector and nuclear cooperation. The agreement is aimed at creating a legal framework that increases safety and security standards and facilitates legitimate nuclear trade.

**2008:** On 12 February 2008, a Council Decision establishing Statutes for the ESA ([2008/114/EC, Euratom](#)) was adopted. It entered into force on 6 March 2008. It repealed the previous Statutes of 1958 so as

to apply modern financial regulations to budgetary issues. Most importantly, it rearranged the number and distribution of seats on the Advisory Committee, cutting the seats from 75 to 56, due to functionality problems observed by the increase in numbers caused by the accession of new member states.

On 26 November, the European Commission adopted a revised proposal for a Directive (COM (2008) 790/3) setting up a Community framework for nuclear safety, updating the framework tabled in September 2004.

**2007:** On 12 February 2007, the European Parliament issued a draft report assessing the EURATOM treaty. The Rapporteur, Eugenijus Maldeikis, was called upon to consider whether the EURATOM Treaty was suited to the present situation of nuclear energy in the EU and whether it provided the tools necessary to meet the energy challenges of the future. On 10 May, the European Parliament issued a resolution—(2006/2230(INI)) “50 years for European Nuclear Energy Policy”—which contains the findings of the February report. The resolution identified certain gaps in the EURATOM treaty that need to be filled and provided guidelines for the future. The Parliament adopted the [report](#) by a vote of 406-175 with 44 abstentions.

On 19 December, the European Atomic Energy Community acceded to the Convention on the Physical Protection of Nuclear Material and Nuclear Facilities.

**2006:** On 15 February, the commission issued a decision warning British Nuclear Group Sellafield that the company had infringed certain provisions of the EURATOM Treaty and Regulation 302/2005. The violations were related to particular reporting obligations and provisions related to access to certain facilities.

In March, the EC began urging the EU to request EURATOM membership in the IAEA. EURATOM currently maintains observer status in the IAEA but is hoping to upgrade to full-member status with voting rights.

**2005:** On 24 January, the Council adopted a decision approving the accession of the European Atomic Energy Community to the “Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.”

On 8 February, the European Commission issued an important regulation (Commission Regulation 302/2005) concerning EURATOM safeguards. This regulation was necessary for several reasons. First, there had been an increase in the quantities of nuclear materials being produced, used, carried, and recycled in the EU. In addition, the trade of such material had seen a substantial increase. For this reason, the commission was of the view that the nature and extent of the 1976 3227/76 EURATOM safeguards regulation needed to be updated, especially in the fields of nuclear and information technology. Another reason for this new regulation was related to the IAEA Additional Protocol, which contains requirements that made it necessary for the commission to update its safeguards regulations, especially concerning reports on nuclear sites and certain types of waste.

The regulation has seven chapters containing 40 articles in total, which are strictly related to the application of safeguards. The regulation also contains 15 annexes, which aim to be used by any person or undertaking that is involved in setting up or operating an installation for the production, separation, reprocessing, storage, or other use of source material or special fissionable material, and to which the regulation applies.

On 20 July a commission regulation was adopted, amending the rules of implementation of the Financial Regulation applicable to the general budget of the European Communities in regard to EURATOM.

**2004:** European Union decision-making bodies took several actions affecting EURATOM in the first half of 2004. On 13 January, the European Parliament decided to support, and proposed some amendments to, a package of European Commission proposals, devised in 2002 and adopted by the commission in 2003, that aim to set common standards on nuclear safety. The parliament acted despite protests from many that the proposals would be ineffective. These protests, and other opposition at the council level, forced the European Commission to redraft the proposals prior to a May vote. However, according to press reports, on 17 May, the EU states announced they had failed to reach a decision on the proposals, with some expressing concern that they might undermine their national safety regimes and procedures. On 28 June, the council adopted conclusions regarding nuclear safety and the safe management of spent fuel and radioactive waste management within the EU, but the proposals themselves were neither adopted nor rejected.

In March, the European Commission approved a EURATOM proposal for a 223.5 million euro loan to the Romanian National Nuclear Power Company for the financing of safety measures at a nuclear power plant. On 1 April, the commission supported the construction of five thermonuclear fusion projects under the Sixth EURATOM Framework Program for research and development. Later that month, the Council of Ministers approved a European Commission regulation regarding EURATOM safeguards, thereby ensuring its nuclear safety competences and confirming which articles of the Nuclear Safety Convention apply to the organization. The amended declaration was sent to the International Atomic Energy Agency. A series of complementary guidelines to facilitate the regulation's implementation were also scheduled to be adopted by the commission.

Several states were warned regarding their failure to comply with EURATOM nuclear safety regulations in 2004. In March, the commission gave Britain a 1 June deadline to create an action plan regarding the clean-up of spent nuclear fuel at a Sellafield plant in Cumbria, stating that under the EURATOM Treaty, safety verifications would be required. It also found that Austria's legislation failed to conform to two EURATOM Treaty directives regarding the protection of workers and the public against ionizing radiation. In June, Portugal faced potential legal action at the European Court of Justice for failing to comply with a EURATOM nuclear safety standard directive at its nuclear technology institute, home to a research reactor.

During the late spring and summer, EURATOM's Joint Research Center was scheduled to begin the process of decommissioning nuclear facilities at Ispra, Italy; Petten, the Netherlands; Geel, Belgium; and Karlsruhe, Germany. This followed a 19 May European Commission announcement of a program for decommissioning and managing related waste from these facilities.

On 6 June, concern arose when, due to a slight drop in pressure, a small amount of radioactive water escaped from a circuit at Temelin nuclear power plant in the Czech Republic. The commission sent a team to investigate the incident in compliance with the EURATOM Treaty, but determined that no radioactive material had been released outside the reactor building and that no one had been exposed to radioactive material. Also in June, the commission approved the construction of a European pressurized reactor nuclear power plant in Finland in 2005 in accordance with the terms of the EURATOM Treaty.

**2003:** In the EURATOM Supply Agency's Annual Report, Director-General Christian Waeterloos noted that 2003 was "an important, if not decisive, year for the future of the Euratom Treaty" for several reasons. One of these was EURATOM's focus on preparing for the anticipated enlargement of the European Union. As noted in the Supply Agency's annual report, five of the acceding states have nuclear power programs and, together, 19 operating nuclear power reactors. In June, the EURATOM Supply Agency held a seminar for representatives of acceding states to address their nuclear fuel supply situations and familiarize them with their future obligations and role within EURATOM. A second seminar convened in November for the energy attaches of the acceding countries' missions to the EU. Following accession, the Supply Agency's advisory committee increased from 51 to 69 members, and its capital increased considerably as well.

Developments also occurred regarding two proposals laid out in 2002. On 30 January, the European Commission adopted the "proposal for a directive setting out the basic obligations and general principles on the safety of nuclear installations" and the "proposal for a directive on the management of spent nuclear fuel and radioactive waste." These potential directives were given to the council in May, which solicited the opinion of the European Parliament. The first proposal was intended to ensure protection against ionizing radiation during nuclear installations, and suggests a set of common safety standards and verification measures for EU Member States based on recognized International Atomic Energy Commission principles. The second sought to obligate participating states to adopt national programs and common deadlines in managing and disposing radioactive waste, and suggested collaborative efforts in research and technology.

A crucial administrative development was the commission's 11 February decision to concentrate all activities related to the implementation of Chapters 3 and 10 of the EURATOM Treaty in Luxembourg, and thus to establish a branch of the supply agency there. It was scheduled to open on 1 February 2004.

The EURATOM Supply Agency Advisory Committee met twice during 2003. The first meeting, held in March, discussed the future role of the ESA and of the EURATOM Treaty. The Advisory Committee accepted a EURATOM Supply Agency proposal for a joint working group to help develop an action plan regarding the "security of supply" of nuclear materi-

als. This group met several times during the year, and prepared a list of risks arising from nuclear fuel supply in the European Union. The group continued to meet and present its findings in 2004. At the second Advisory Committee meeting, held in November and attended by observers from the acceding states as well as Member States, the ESA proposed an extension of the chair's and executive bureau's terms until 30 April 2004. The council also adopted a mandate regarding nuclear trade negotiations between EURATOM and Russia, authorizing the commission to negotiate a cooperation agreement; these negotiations were scheduled to begin in the spring of 2004.

In September, representatives at the EU Convention agreed to a proposal to maintain the conditions of the 1957 EURATOM Treaty, upholding it as a separate legal identity. However, the European Parliament called for a major revision of the treaty, suggested a co-decision process involving the European Parliament, and claimed there were inconsistencies between the treaty and the proposed European Union Constitution. No final decision on the issue was made by the end of the year.

The following month, on 16 October, the European Commission decided to take the United Kingdom to the Court of Justice because it failed to comply with the EURATOM Treaty's rules on military-generated radioactive waste. The United Kingdom had, without commission authorization, disposed of radioactive waste from spent fuel from its Trident submarines.

In December, the commission issued a report, *The Operation of EURATOM Safeguards in 2002*. It stated that 2002 was a "pivotal year" for the organization, and noted the impact that the adoption of a new mission statement and creation of two new directorates, continued to have on EURATOM. The report surveyed EURATOM Safeguard's 2002 activities, noting that some inconsistencies were originally found, but that investigations showed no misuse of nuclear materials. The report addressed the safety and security of EU nuclear installations, noting a number of problem areas, such as monitoring of the UK's Sellafield reprocessing center and a high level of unaccounted for material at France's Cogema-Cadarache plant. However, the report noted that "necessary corrective actions" were taken with regard to these problems. The safeguards report also addressed a number of other issues, including the IAEA Additional Protocol, noting that EURATOM plays a crucial role in its implementation. It added that the upcoming EU enlargement should not be problematic in terms of providing comprehensive safeguards,

despite some budget concerns stemming from the increase in the number of verification measures that will be needed.

Also that month, the EU Council of Ministers approved an extension of EURATOM competences under the 1994 Nuclear Safety Convention, thus amending the EURATOM Declaration. The Convention was established following the Chernobyl nuclear power plant disaster in 1986 and aims to provide international monitoring of nuclear safety standards.

The ESA Annual Report noted that in terms of the nuclear industry, 2003 was "tense from the point of view of the nuclear supply chain," with several events adversely affecting the market. Uranium purchases by the European industry doubled, and there were significant levels of purchasing of Russian highly enriched uranium in Europe. Specific developments mentioned included the signing of an agreement between the European Community and Uzbekistan on 6 October to cover transfers of nuclear materials and the European Council's 26 November selection of Cadarache, France, as the location of the International Thermonuclear Experimental Reactor project. In addition, the Annual Report also noted the Belgian Parliament's approval of a law on the phasing out of old commercial power plants, the progression of plans to build a new nuclear power unit in Finland, the closing of a nuclear power plant in November, the release of an Energy White Paper in the UK in February, Italy's selection of a site for the repository of radioactive wastes, and a decrease in electricity productivity in Sweden.

The report also covered the anti-dumping and anti-subsidy investigations launched by the United States against low-enriched uranium from France, Germany, the Netherlands, and the UK in 2000, the Annual Report notes. A review of measures taken by the United States, including the imposition of countervailing duties on imports from some of these states, began in March, and the U.S. Court of International Trade (CIT) remanded several issues to the U.S. Department of Commerce for "further explanation and consideration." The CIT in September upheld some of these actions, but rules that the anti-dumping law can only apply to certain transactions.

Regarding bilateral discussions, EURATOM's nuclear cooperation with the United States, Australia and Canada proceeded normally in 2003, and included several rounds of talks. On 22 October, the United States and EURATOM met for consultation in Washington to discuss nuclear policy developments, long-

term waste repositories, the diversification of supply, safeguards and other issues. As five countries which were scheduled to accede to the EU already had bilateral agreements for cooperation with the United States, these were folded into the EURATOM-U.S. agreement, and material and equipment transferred under these agreements became part of the EURATOM-U.S. inventory.

**2002:** A high-level expert group, set up by the European Commission (EC) in 2001, submitted a report to the commission that issues a new mission statement and a series of recommendations to enhance the EURATOM Safeguards Office (ESO). The mission statement clarified the ESO's objectives. According to the statement, the ESO should first and foremost ensure that all those involved with nuclear materials hold correct accounts and apply effective monitoring systems. The ESO should ensure that nuclear materials are not diverted from their original purpose, and co-operate openly with its partners in the context of bilateral agreements, notably with the IAEA. The ESO should act as a central contact point with the IAEA for the implementation of the supplementary Protocol on non-nuclear materials by the EU and the IAEA

The expert group also made 12 recommendations. For example, in terms of cooperation with other partners, the group recommended ESO inspections might be justified along the lines with of those conducted by the IAEA. It also proposed a series of concrete measures such as the creation of a EURATOM scientific advisory group on nuclear safety and the drafting of a revised budget for 2003. Those recommendations were endorsed by the European Commission's Directorate-General for Transport and Energy, into which the ESO was fully integrated.

On 12 September, Friends of the Earth Europe organized a conference on the issue of reforming the 1957 EURATOM Treaty. During the Conference, the European Parliament's Director-General for Research circulated a working paper that summed up relations between the European Parliament and EURATOM, and put forward several ideas for an alternative institutional relationship. The European Parliament's main concern about the EURATOM Treaty was its lack of accountability since the EU's elected representatives are excluded from the EURATOM decision-making process.

The EURATOM Supply Agency's 2002 Annual Report stated that supply of nuclear fuels to EU utilities "remained stable," and that the market situation was much like that of 2001, though worldwide production of natural uranium dropped slightly. The Report not-

ed the European Commission's adoption of a new Green Paper, "Towards a European Strategy for Security of Energy Supply," which was released in 2000 and emphasized the importance of guiding energy consumption and the role of nuclear energy in the EU. It also described a package of measures – two proposals for directives regarding the safety of nuclear installations, the management of radioactive waste, and the security of supply, and one proposal for a decision on a nuclear trade agreement between EURATOM and Russia – that the Commission proposed in an effort to foster a "community approach."

Another issue addressed in the report was the participation of the ESA in negotiations on EU enlargement, which is expected to impact the supply and demand of nuclear fuels as well as the size and capital of the ESA. Other developments noted are decisions regarding the closure of nuclear plants in the United Kingdom and Spain and a "phase out" of some Belgium plants; negotiators' signing of a nuclear cooperation agreement between EURATOM and Japan; and the conclusion of negotiations with Uzbekistan regarding the transfer of nuclear material.

The Annual Report also stated that the Convention on the Future of Europe had "renewed interest in the Euratom Treaty and its future," and that some suggestions had arisen regarding possibly revising or even abolishing its terms.

**2001:** The advisory committee to the supply agency, at its meeting on 28 March, adopted an opinion on the Green Paper "Towards a European Strategy for the Security of Energy Supply". According to the EURATOM supply agency's annual report, the paper raised "considerable interest" and debate. Renewed levels of interest in nuclear power outside Europe were also attributed to international power shortages and other issues that arose during the year.

The Annual Report also noted that the supply of nuclear fuels to EU utilities was steady throughout 2001, and that natural uranium availability did not represent an immediate problem. It described developments within the EU, including Belgium's announcement of a proposed law to phase out old nuclear reactors; Finland's continued construction of nuclear capacity to meet Kyoto protocol goals; Germany's clarification of its nuclear phase out program through an amendment to the Nuclear Power Act; a legal disagreement between the government of the Netherlands and the operators of one of its nuclear power plants; and the commissioning of a report in the UK to address long-term energy policy. In regards to bilateral cooperation in the field of nuclear energy, the ESA and European Commission contin-

ued talks with Australia, Canada and Russia in efforts to retransfer depleted uranium to Russia for re-enrichment.

**2000:** The EURATOM Supply Agency 2000 Annual Report stated that nuclear electricity continued to be produced satisfactorily during the year and that a steady supply of nuclear fuels to the EU utilities was maintained. Nuclear plants generated about one-third of the electricity produced in the EU. However, the report called attention to the fact that production of natural uranium worldwide continued to be far below world requirements and that if this should continue in the longer term, it could lead to periods of instability due to a lack of readily available material. The report discussed general developments, supply and demand for nuclear materials and enrichment services in the EU, nuclear energy developments in the Member States of the EU in a state-by-state analysis, and international relations through an analysis of bilateral arrangements. The final chapter contains the Administrative Report and is followed by annexes of the fuel loaded and deliveries from 1980-2000, ESA average prices from 1980-2000, and questions raised by the Green Paper.

On 29 November, EURATOM issued its 2000 Green Paper "Towards a European Strategy for the Security and Energy for All." This paper was intended to open a debate on all aspects related to securing the EU's energy supply. All interested parties were invited to contribute to the debate and were encouraged to provide comments.

The EURATOM Advisory Committee held two meetings. The agency consulted extensively with industry and the committee on the supply policy and the appropriateness of adapting its application in view of developments in the newly independent States (NIS) and the lifting of restrictions in the United States, in particular the separate treatment of the individual Republics of Kazakhstan, Uzbekistan, and Ukraine. The Bureau prepared a paper setting out the potential adaptations that received broad support in the committee. The agency briefed the committee on other events of special interest such as the new dual-use regulation and the publication of the Green Paper.

The commission services reported to the committee on progress concerning potential new EURATOM nuclear cooperation agreements (with Japan, Ukraine, Kazakhstan, and Uzbekistan), as well as on the exploratory talks held with China. Updates were also provided on the commission's work in the framework of the General Agreement on Trade and Services (GATS) 2000 negotiations.

At the end of the year, the United States filed a petition on anti-dumping against European enrichers which attracted the attention of the committee.

**1999:** The Advisory Committee held two meetings during the year and discussed the supply policy to be applied in the EU to natural uranium derived from highly enriched uranium (HEU) from the Russian Federation and to uranium from the re-enrichment facilities within the Russian Federation of depleted uranium transferred from the EU. Exchanges of views took place on market developments, levels of production and stockpiles in producer countries, especially the Russian Federation and other NIS. The EURATOM Supply Agency and the commission briefed the committee on meetings with Russian authorities in the context of the Partnership and Cooperation Agreement between the EU and Russian Federation and on the results of conversations with U.S. authorities concerning the matter of overpricing of enrichment services by the United States Enrichment Corporation (USEC) to two EU companies.

By the end of the year, the European Commission installed 77 digital surveillance systems in the Member States of EURATOM for joint use with the IAEA to improve the effectiveness and efficiency of safeguards. This equipment is designed for use without an attendant, leading to possible reduction in the frequency of inspections.

The EURATOM Supply Agency's Annual Report stated that the supply of nuclear fuel was "unhindered" in 1999, but also noted that production levels of natural uranium were below consumption levels, and that "short to medium term disruption is possible." The disposal of Russian highly enriched uranium was recognized as an important secondary source in supplementing uranium supply levels. The Report added that the nuclear industry suffered in 1999 due to negative publicity and political pressure, but that only one European Union reactor, Sweden's Barseback 1, actually closed. In addition to supply and demand issues, the Report briefly addressed the ESA's involvement in discussions between the commission and potential EU states as enlargement remains a major issue.

**1998:** Three new agreements to strengthen nuclear safeguards were approved by the EU General Affairs Council (GAC) and the IAEA. These additional protocols include one each for France and the United Kingdom and one covering the remaining 13 EU states which do not have nuclear weapons. EURATOM is also a Party to these three agreements.

During the two annual meetings of the Advisory Committee, the agency informed it of developments related to supply policy, in particular with regard to the disposition of ex-military HEU from Russia and from other NIS. Discussion took place from a supply perspective of the possible policies in the EU for depleted uranium enriched in Russia. The agency also informed the committee about a proposal to convert the agency's capital from EMA units of account into Euros, and on official consultations with the United States, Australia, and Canada within the framework of existing nuclear agreements, as well as on the developments of potential EURATOM international agreements in the area of nuclear fuel supply.

The 1998 ESA Annual Report described major developments regarding the nuclear fuels markets and industry. It stated that total world production of natural uranium declined slightly from 1997 figures, with the discrepancy between production and consumption filled by secondary sources, and the European Union diversification of its supply sources. Specifically, large exports from NIS contributed to a sustainable balance. Significant developments noted by the Report included the Council of Ministers' May approval of negotiations for nuclear cooperation with Japan, the progression of talks with Russia regarding nuclear cooperation, and the European Commission's December proposal of negotiations with Ukraine.

**1997:** The overview of the policy on supply sources of ore and fissile materials was published in the EURATOM Supply Agency's Annual Report. This Report notes that the Kyoto Protocol, negotiated in December, provides a strong argument for some countries to maintain and increase their nuclear contribution to the total energy supply. Two international nuclear agreements entered into force: namely, the Partnership and Co-operation Agreement with Russia and the Nuclear Co-operation Agreement with Argentina. Also, the fabrication of MOX fuel for Japan, to take place in Belgium, was covered by an exchange of diplomatic notes between the European Commission and Japan in February. During the Advisory Committee's two annual meetings, Commission Services gave a presentation of its draft "Illustrative Nuclear Program of the Community", which was followed by an exchange of views.

**1996:** In September, the commission adopted a draft "Indicative Nuclear Program for the Community" (PINC).

The commission also published its white paper on energy policy for the EU. Along with key energy policy objectives of competitiveness and environmental protection, the objective of security of supply

was a common thread throughout the development of energy policy in the EU, which is the world's largest net importer of energy.

The new EURATOM/USA Agreement for Cooperation entered into force on 12 April 1996.

The annual report of the supply agency noted that the Commonwealth of Independent States (CIS) was the EU's biggest source of natural uranium and that the Russian Federation remained the EU's single largest supplier country in 1996. In this connection, the agency pursued its policy of diversification of sources of supply and market-related prices with regard to offers of material from CIS countries' production or from military or other stockpiles.

**1995:** The Russian Federation was the EU's main external source of supply of natural uranium. When concluding supply contracts, the agency applied the procurement policy established in 1992 with the general goal of diversifying sources in order to protect the security of its supply.

The advisory committee met in March and December. The first meeting focused on follow up work from the Ad Hoc Working Group on certain practicalities related to the future implementation of the June 1994 Partnership and Cooperation Agreement (PCA) with Russia. The committee adopted a resolution recommending that the agency continue monitoring supply contracts for materials of Russian origin, and to report its findings to the committee on a regular basis. The committee also heard reports on developments with regard to proposals for negotiating directives with five CIS Republics, the Energy Charter Treaty, and consultations with Canada and Australia.

Negotiations on a new EURATOM/USA agreement for cooperation moved into their final phase and the new agreement was signed in Brussels on 7 November. This replaced the former agreement of 1960, which would have expired on 31 December 1995.

On 15 September, the Court of First Instance dismissed an action brought by a Portuguese natural uranium producer who sought preference for disposing of community output and challenged the simplified procedure introduced by Article 5 of the Agency Regulation of 1960, as amended in 1975. The court emphasized that the agency has the discretion to refuse to enter into supply contracts that could conflict with the objectives of the EURATOM Treaty.

**1992:** EURATOM and the IAEA signed an agreement on 28 April on the initiation of the "partnership approach," an implementing accord between the IAEA director general and EU commissioner for en-

ergy. The agreement was intended to streamline the implementation of certain parts of the basic agreement concluded in 1973 (INFCIRC/193). Under the partnership agreement, inspection activities were to be performed on the basis of “one job, one man” supplemented by quality control measures to enable both organizations to reach their own independent conclusions and required assurances. These arrangements were to be designed and performed in such a manner that they did result in unnecessary duplication of effort. Implementation of the partnership agreement was progressively introduced at different facility types. The savings in person-days of inspections achieved were due mainly to the discontinuation of the observation and joint team regimes. Implementation was initiated at three light water reactors (LWRs) without MOX and could be expanded to cover other such LWRs.

Two other agreements among the IAEA, EURATOM and each of the two NWS of the EU for the application of safeguards in those states are INFCIRC/263 (UK) and INFCIRC/290 (France). They were modeled on INFCIRC/193, but without a partnership arrangement. The states supply the IAEA with a list of facilities in which it may apply safeguards, and the IAEA makes a selection from the list.

**1973:** An agreement was concluded through INFCIRC/193 under which IAEA safeguards are applied, together with those of EURATOM, in NNWS of the EU. (INFCIRC/193 is an agreement between the IAEA, the NNWS of the EU, and EURATOM.)

**1960:** The EURATOM Supply Agency became operative. It was established by the EURATOM Treaty to ensure a regular and equitable supply of ores and nuclear fuels by means of a common supply policy based on the principle of equal access to sources of supply.

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