
NUCLEAR ENERGY AGENCY (NEA)

Established: 1958.

Membership: 28 States — Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, Netherlands, Norway, Portugal, Republic of Korea, Slovak Republic, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States.

Background: The Nuclear Energy Agency (NEA) is a specialized agency within the Organization for Economic Co-operation and Development (OECD), based in Paris, France. It was established on 1 February 1958 under the name of the European Nuclear Energy Agency (ENEA) but was renamed the Nuclear Energy Agency on 20 April 1972, to reflect its broader membership (including the United States, Canada, and other non-European nations).

Mission: The objective of the Agency is to assist Member countries in maintaining and developing nuclear energy as a safe, environmentally acceptable, and economical energy source by serving as a forum where states can share information and experience and promote international co-operation.

NEA membership currently consists of 28 countries across Europe, North America, and the Asia-Pacific region. It represents 85 percent of the world's installed nuclear capacity and includes a large majority of the more advanced countries in the nuclear field.

Aims: The NEA seeks to promote cooperation between the Member governments on the safety and regulatory aspects of nuclear power, and on the development of nuclear energy as a contributor to economic progress. The statute of the NEA refers to the objective of preventing the proliferation of nuclear explosive devices. However, the Agency does not have direct nonproliferation responsibilities.

Its areas of work include nuclear safety and regulation, nuclear energy development, radiation protection and public health, nuclear law and liability, nuclear science, maintenance of a data bank, and information and communication services.

Steering Committee: This committee is composed of representatives from all Member governments and from the European Union. The Secretariat serves seven specialized standing technical committees on radiation protection, nuclear safety and regulation,

nuclear development, nuclear science, radioactive waste management, legal affairs and data collection under the leadership of the Steering Committee, which reports directly to the OECD Council.

Developments:

2009: On 29-30 January, the NEA and the IAEA convened a [workshop on the security of supply of medical radioisotopes](#). Over 80 experts recognized the vulnerability of the global isotope supply chain and identified measures to enhance short-term supply security.

On 20-22 April, the NEA co-sponsored a conference hosted by the IAEA entitled the "[International Ministerial Conference on Nuclear Energy in the 21st Century](#)." Among the event's objectives were "to recognize the positive momentum towards nuclear power and to further raise the profile of nuclear energy," to discuss "the development of nuclear power in developing and developed countries," and to discuss "the interrelationship between nuclear energy, resources, and the environment." OECD Secretary-General Angel Gurría gave the [keynote speech](#). He cautioned that "in the long-term, there will be no single solution to providing abundant, clean, and affordable energy," and argued that "it is essential to keep all low-carbon energy options open and to avoid idolising or demonising any technology." The conference's [concluding statement](#) asserted that "nuclear energy, as a proven, clean, safe, competitive technology, will make an increasing contribution to the sustainable development of human kind throughout the 21st century and beyond."

2008: On 7 March, 10 states represented by the directors of their nuclear regulatory agencies met at the NEA to discuss the [Multinational Design Evaluation Programme](#) (MDEP). The director of the French Nuclear Safety Authority, Mr. André-Claude Lacoste, chaired the meeting. Agencies present decided to strengthen ties of cooperation and launch a new program of work designed to address specific nuclear energy issues and achieve short-term goals. Issues addressed included: reactor designs, codes for nuclear power plants components, control standards, multinational vendor inspections and digital instrumentation. Successful implementation of the MDEP was expected to increase efficiency and enhance safety.

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On 3 June, the NEA, along with the IAEA, presented a report entitled "[Uranium 2007: Resources, Production and Demand](#)." The report concluded that assuming current consumption, enough uranium was known to be present around the world to meet demand for at least a century. On 16 July, the NEA released a report on the most recent [nuclear energy-related data](#), stating that a total of 346 nuclear power plants produced 21.6% of the OECD-generated electricity. On 16 October, NEA Director-General Luis Echávarri presented "[The Outlook for Nuclear Energy](#)," a publication emphasizing the positive role of nuclear energy.

On 16 October, Mr. Angel Gurría, Secretary-General of the OECD, and Mr. Richard J.K. Stratford (United States), Chairman of the Steering Committee for Nuclear Energy, chaired a meeting marking the 50th anniversary of the creation of the NEA in Paris.

2007: The Russian Federation and the NEA signed a [joint declaration of cooperation](#) in Moscow on 21 March. Russia's new membership as an *observer* is predicted to bring over 3,000 nuclear experts to the NEA. Upon the signing, NEA Director-General Luis Echávarri proclaimed that "This joint declaration is highly significant and an important step towards strengthening ties between the Russian Federation and the NEA." It is expected that shared knowledge and international cooperation will strengthen the nonproliferation regime.

During the 6-8 June G8 Summit in Heiligendamm, Germany, the NEA presented a paper written by Director-General Luis Echávarri entitled [What Role for Nuclear Energy?](#) Accordingly, the paper detailed the growing role and demand for nuclear energy, environmental concerns and potential security threats.

On 23 July, OECD Secretary-General Mr. Angel Gurría [announced](#) the appointment of Janice Dunn Lee as the Deputy Director-General of the NEA. Ms. Lee's former duties include an assignment as the Director of the United States Nuclear Regulatory Commission Office of International Programs.

2006: In June 2006, the NEA reviewed and presented a report by the Consejo de Seguridad Nuclear (CSN), the nuclear authority in Spain. Its review examined CSN's report on a plant incident that effected the service water system. The NEA found CSN to be congruent with international law and commended their efforts. The actual reported is linked [here](#).

On 28 June 2006, the NEA adopted an [act](#) regarding the sustainability of radioactive materials. This act will further support the "Bataille Act" of 1991 which sought to manage long-surviving radioactive material.

The NEA also released its annual report of 2005 events and developments. [The NEA Annual Report 2005](#) focused on nuclear power in 2005, nuclear energy and civil society, and NEA workshops. However, the report primarily focused on technical programs, such as Nuclear Development and the Fuel Cycle, Nuclear Safety, Regulation, Radioactive Waste Management, and Radiation Protection, among others.

2005: The NEA released a report entitled [Energy Nuclear Data 2005](#), which reports the status and trends of OECD countries. The report also offers its predictions of future energy use till 2025.

The NEA also produced a report entitled the [Strategic Plan of the Nuclear Energy Agency](#), which outlines the agency's goals from 2005 to 2009. The Strategy Plan was originally adopted in 1999. However, it was revised to meet new energy demands. The new strategy discusses climate change concerns, government safety regulations for nuclear energy, and finally, it will examine energy trends on the free market.

2004: On 12 February, the NEA participated in the signing of protocols to amend the Paris Convention on Third Party Liability in the Field of Nuclear Energy and the Brussels Convention Supplementary to the Paris Convention. The amendments provide for increased compensation to nuclear accident victims and, in the case of the Paris Convention, a wider application of its terms. The Paris Convention Protocol requires the ratification of two-thirds of the signatory States, and the Brussels Supplementary Convention Protocol must be ratified by all signatory States before entering into force.

The NEA also co-sponsored and co-organized a number of conferences related to various nuclear issues. Among these were a 26-28 April international conference on radioactive waste disposal in Berlin, a 2-6 May International Topical Meeting on Advanced Nuclear Installation Safety with the American Nuclear Society in San Francisco, California, and two May conferences on radiation protection and shielding in Portugal and Spain. Meetings held in June included the American Nuclear Society International Congress on Advances in Nuclear Power Plants in Pennsylvania and the 7th International Conference on

Probabilistic Safety Assessment and Management in Berlin. From 23 August to 3 September, the fourth session of the International School on Nuclear Law was held at the University of Montpellier 1, France. It covered all the essential aspects of the law governing the uses of nuclear energy: radiation protection, nuclear safety, radioactive waste management, transport of nuclear materials, physical protection, non-proliferation, regulation of trade and nuclear third party liability and insurance.

2003: The NEA's [annual report](#) stated that 2003 was an active year that included divergent trends in nuclear energy, with some OECD States showing renewed interest and others emphasizing its risks. Nuclear electricity generation in the region fell approximately two percent, and nuclear power plants were the source of 23 percent of electricity generated. Regarding individual nuclear units, 359 were in operation, with six additional units undergoing construction.

OECD States' nuclear power plants maintained a good level of safety performance in 2003, but several problems in nuclear safety management continued to require attention. In addition to nuclear safety and regulation, researching and developing new reactor types through the Generation IV International Forum were also identified as primary issues in 2003.

Documents released in 2003 included a report on the decommissioning of nuclear power plants that addressed the relationship between government and industry policies and strategies in the area and noted a wide range of practices among OECD States. A new NEA publication, *Nuclear Energy Today*, was also introduced.

Numerous conferences and workshops convened throughout the year. In April, the NEA held its second annual NEA-International Commission on Radiological Protection Forum in Lanzarote, Spain to address a range of regulatory concepts. From 17-18 June, the heads of the nuclear regulatory agencies of OECD States met in Paris with high-level government officials and nuclear industry executives to address means of assessing the effectiveness of nuclear regulation. They discussed ways to ensure the safety of nuclear installations and reduce risks to public health and concluded that regulatory performance indicators are useful but that more attention is needed in correctly analyzing them. Also in June, a workshop organized in conjunction with the International Atomic Energy Agency further addressed issues of nuclear safety management. The NEA also conducted

an [international peer review](#) of French radioactive waste management and documents regarding the feasibility of disposing of high-level, long-lived waste in deep geological forms, noting significant progress since 1991.

Finally, regarding nuclear legislation, the NEA held its third session of the International School of Nuclear Law at the University of Montpellier in France from August-September, and established a University Diploma in International Nuclear Law.

2002: The NEA's annual report stated that increased attention was devoted to the nuclear option in Europe and North America in 2002. A total of 362 nuclear power units were in operation in OECD Member States, providing 24 percent of electricity generated. While three new nuclear units began operating, two were retired. Seven additional units underwent construction. Major focuses of the NEA throughout the year included efforts to develop new nuclear systems through the Generation IV International Forum Technology Roadmap and the study of regulatory issues involved in decommissioning nuclear reactors and of indicators of nuclear safety and regulatory effectiveness and maintaining nuclear safety competence. The annual report also described the NEA's consideration of ways to improve radiological protection in cooperation with the International Commission on Radiological Protection during 2002. Regarding performance indicators for the year, it noted that nuclear power plant safety had remained good, though imperfect, and that there was evidence of improved radioactive waste management and progress in implementing procedures for spent nuclear fuel and highly radioactive waste disposal.

On 13 June, the OECD Council approved the membership of the Slovak Republic in the OECD Nuclear Energy Agency and its Data Bank. The Slovak Republic became a Member of the OECD on 14 December 2000.

An international gathering of high-level executives from nuclear regulatory organizations and nuclear utilities met on 18-19 June in Paris, France to foster a constructive dialogue between regulators and operators of nuclear installations in a number of key areas, including market competition, asset management, and the measurement and communication of safety performance. The International Forum on Nuclear Regulator/Licensee Interface Issues was jointly organized by the NEA and the World Association of Nuclear Operators (WANO). Approximately 100 participants from over 20 countries attended.

2001: In its annual report, the NEA noted that several substantive developments in the nuclear field, taken in the wider context of energy and the environment, helped make 2001 a pivotal year in the development of nuclear energy at the international level. Several Member countries reviewed their energy policies, including Belgium, Finland, the United Kingdom, and the United States. In addition, the European Commission issued a Green Paper on security of the energy supply. The role of nuclear energy was closely examined on this occasion.

At the end of 2001, 360 nuclear power units were connected to the grid in OECD countries, generating approximately 24 percent of total electricity supply. Eleven units were under construction: one in the Czech Republic, four in Japan, four in Korea, and two in the Slovak Republic. Plant lifetime extensions were authorized or being planned in several countries. In the upcoming decade, total electricity generation in the OECD area was projected to increase.

In the field of radiation protection, the report noted that the most significant challenge at hand was to better integrate radiation protection within current approaches to risk governance. International principles of radiation protection were therefore in the process of being reviewed. The NEA contributed to this effort by producing a discussion document addressing several specific areas in which the system of radiological protection could be adjusted to better meet governmental and social needs.

In the field of radioactive waste management, important steps took place in 2001 in a number of OECD countries, among them Finland, Sweden, the United States, Canada, and Germany in respect to geologic disposal programs. The NEA focused its attention on policy issues and public confidence in this field. Another focus for the NEA in this field was the need for establishing and communicating technical confidence in the safety of deep geologic disposal. A study on this topic was finalized for publication. Finally, an international peer review was organized by the NEA, in co-operation with the International Atomic Energy Agency (IAEA), of the US Department of Energy's performance assessment concerning the proposed site of Yucca Mountain (Nevada) for an underground repository for spent nuclear fuel and high-level waste.

2000: The NEA conducted 16 main workshops and seminars throughout the year. These meetings took place in various countries and covered such subjects as the safety of the nuclear fuel cycle, pyrochemical separations, nuclear regulators and the public, etc.

In its annual report, the NEA noted that 359 nuclear power units were in operation in OECD countries, providing approximately 24 percent of the supply of electricity. Three units were shut down in 2000: one in Germany and two in the United Kingdom. Twelve units were under construction: two in the Czech Republic, four in Japan, four in the Republic of Korea, and two in the Slovak Republic. The deregulation of electricity markets, privatization of the power sector, and increasing awareness of environmental issues were some of the key issues affecting nuclear power development during the year.

1999: In its annual report, the NEA noted that the future of nuclear energy will depend on a number of technical, environmental, economic, social, and political factors. A total of 348 nuclear power units were in operation in OECD countries in 1999, providing almost one quarter of total electricity production. However, nuclear energy continued to be a subject of controversy and public debate. In two Member countries, political decisions have been taken to begin phasing out nuclear energy production.

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