NATIONAL LEGISLATIVE AND REGULATORY ACTIVITIES

Argentina

Radiation Protection

Resolution on the Nuclear Emergency Response System (1999)

Resolution No. 25 of the Nuclear Regulatory Authority, adopted on 11 November 1999 (Official Journal of 16 November 1999), aims to establish a system governing procedures to be followed in emergency situations in nuclear installations (SIEN).

Pursuant to the Resolution, the nuclear emergency response system shall be administered and co-ordinated by an Emergency Cabinet, established within the Nuclear Regulatory Authority. The Secretariat of this Cabinet and a Centre for Control of Emergencies, headed by a Director, are also established under the aegis of the Authority. Finally, a Head of Operations is entrusted with the management, at local level, of relations with the representatives of the operator, civil protection bodies and the security forces.

The tasks of the Emergency Cabinet and its Secretariat, the Director of the Centre for Control and the Head of Operations are described in the four annexes accompanying this Resolution.

Radioactive Waste Management

Resolution approving the Standards on the Management of Radioactive Waste (1999)

On 26 November 1999, the Nuclear Regulatory Authority adopted Resolution No. 29 approving Standards AR-10.12. These Standards aim to establish the conditions necessary to ensure the safe management of radioactive waste originating from all nuclear installations and from activities subject to the control of the Regulatory Authority. It does not apply to materials which contain sources of natural radioactivity and which have not been subject to technological processes to concentrate or otherwise alter their natural properties.

The Resolution defines a number of terms related to radioactive waste management, for example, conditioning, confinement, multiple barriers, radioactive waste management, radioactive waste, the system of disposal, processing etc.

The Resolution also describes criteria for management. In particular, it provides for a transfer of liability from the entity responsible for radioactive waste (the holder of a licence to carry out an activity which produces waste) to the body for radioactive waste management *(Gestionadora de Residuos Radiactivos).*

These Standards entered into force on the date of their publication in the Official Bulletin, *i.e.* 1 December 1999.

Armenia

Organisation and Structure

Decision approving the Statute of ANRA (2000)

On 22 June 2000, the government approved the Statute of the Armenian Nuclear Regulatory Authority (ANRA) in its Decision No. 385. According to this Statute, ANRA reports directly to the government, and the Head of ANRA is appointed and dismissed by the Prime Minister.

ANRA is responsible for the state regulation of nuclear and radiation safety of nuclear facilities and radioactive waste facilities. In this respect, it develops and submits safety regulations and rules to the government; issues and withdraws licences; accredits persons involved in safety activities; performs state accounting of nuclear materials and radioactive waste; etc. ANRA is empowered to enter into and inspect nuclear facilities and sites. It is also responsible for nuclear and radiation emergency response systems.

ANRA submits quarterly reports to the President, the National Assembly and the government on the nuclear and radiation safety situation at installations, and provides both the public and the authorities with information on nuclear and radiation safety.

Belgium

Organisation and Structure

Royal Order setting out the fees to be paid to ONDRAF to establish and maintain an inventory of all nuclear installations and all sites where radioactive substances are located (2000)

The above-mentioned Royal Order, which was adopted on 31 May 2000 and entered into force on 27 July 2000 (*Moniteur belge* of 27 July 2000), is based on the Act of 12 December 1997, which entrusted the National Organisation for Radioactive Waste and Enriched Fissile Material (ONDRAF) with the task of drawing up and maintaining an inventory of all nuclear installations and all sites where radioactive substances are located. This inventory covers all nuclear installations, whether major installations, such as nuclear power plants, or minor installations, such as ionising radiation sources used in hospitals or industry, and irrespective of whether they are in operation, shut down or being decommissioned.

This Order provides ONDRAF with the necessary financial means to carry out this task. For this purpose, it establishes an annual fee payable by operators, licensees or owners of such installations. These fees shall be used exclusively to cover expenses related to the establishment and maintenance of the inventory.

Third Party Liability

Amendment of the Act on Third Party Liability in the Field of Nuclear Energy (2000)

The Act of 22 July 1985 on Third Party Liability in the Field of Nuclear Energy (see *Nuclear Law Bulletin* Nos. 28, 36 and 37), which establishes the liability of operators of nuclear installations pursuant to the Paris Convention on Third Party Liability in the Field of Nuclear Energy and the Brussels Supplementary Convention, was amended on 8 June 2000 (*Moniteur Belge* of 4 October 2000). The amendment will enter into force on 1 January 2001.

The maximum amount of the operator's liability is raised from 4 to 12 billion Belgian francs (*i.e.* to just over 200 million Special Drawing Rights) per nuclear accident. Furthermore, where several installations are located on the same site and have the same operator, they are now considered as one single installation.

In addition, the King is authorised to raise or reduce the amount of liability of the operator in order to take into account Belgium's international commitments, or for low-risk installations or transport, on condition that the amount chosen is not less than the minimum amount established by the Paris Convention.

Canada

General Legislation

Nuclear Safety and Control Act (1997)

On 31 May 2000, Canada's new Nuclear Safety and Control Act came into force. Although the Act itself had actually been adopted by the Canadian Parliament on 20 March 1997 (see *Nuclear Law Bulletin* Nos. 60 and 65 for a description of this legislation, and the Supplement to *Nuclear Law Bulletin* No. 60 which reproduces the text of the Act), stakeholder consultations on a wide range of technical and administrative regulations associated with the Act, followed by the requisite regulation approval procedure, took some three years to conclude. The implementing regulations cover in particular nuclear safety and control, radiation protection, Class I nuclear facilities, Class II nuclear facilities and equipment, uranium mines and mills, nuclear substances and radiation devices, packaging and transport of nuclear substances, nuclear security, and import and export control for nuclear non-proliferation purposes.

Together, the new Act and regulations constitute a major modernisation of Canada's nuclear regulatory regime, a regime that now reflects an increased focus on health, safety, security and environmental protection. The Act provides a much stronger legislative base for regulating nuclear activities by giving the newly established regulatory agency, the Canadian Nuclear Safety Commission (CNSC), the necessary powers to regulate all aspects of the nuclear industry. The Act also enables the Commission to help ensure Canada complies with its international commitments with respect to nuclear non-proliferation, safeguards and security. The new regulations are in keeping with current legal, technical and financial standards, including international standards, particularly in areas such as radiation protection, transportation and physical security.

Under the Act, the CNSC is established as an independent agency of the Government of Canada. Its objectives are to prevent unreasonable risk to the environment, to the health and safety of workers and the public and to national security; to achieve compliance with international treaties and obligations on the peaceful use of nuclear energy; and to provide objective scientific, technical and regulatory information to the public concerning the Commission's activities and concerning the effects of the nuclear industry on health, safety and the environment.

The CNSC has the authority to regulate a broad scope of activities involving nuclear energy or nuclear materials in Canada. These include nuclear power plants, nuclear research reactors and testing establishments, uranium mines and mills, uranium refining and conversion facilities, fuel fabrication facilities, heavy water production plants, radioisotope production and processing facilities, particle accelerators, radioactive waste management facilities, prescribed substances, equipment, information and radioisotopes. In addition, the CNSC is authorised to control the import, export and transportation of nuclear materials and other prescribed substances, nuclear equipment and technology.

In order to recognise the wide range of risks associated with different types of nuclear facilities and to ensure that comparable facilities are licensed and regulated to the same standards, nuclear facilities are now divided into two categories, Class I and Class II: Class I is further divided into IA and IB with the former covering major facilities such as reactors while the latter covers such facilities as medical isotope producers and uranium processors; Class II facilities, which present lower risks, include accelerators and medical and industrial irradiators.

Some of the more important features of the new legislation include:

- strengthened provisions for compliance and enforcement of its requirements, including the power to issue orders, a broader range of offences and sentencing options;

- a re-certification requirement for reactor operators every five years and increasing the ceiling on fines from 10 000 Canadian dollars (CAD) to CAD 1 million;

- mechanisms to ensure that taxpayers are protected from calls on the public purse where licensees are unable to provide decommissioning and waste management costs for their licensed facility due to financial default, such mechanisms consisting of guarantees to be provided by licensees of all major nuclear facilities;

- the establishment of more stringent regulations to ensure the protection of public health, such as the reduction in occupational dose limits, generally based upon the latest recommendations of the International Commission on Radiological Protection (ICRP) from 50 millisievert (mSv) per year to 100 mSv over five years for nuclear energy workers, from 10 mSv per year to 4 mSv per year for pregnant nuclear energy workers, and from 5 mSv per year to 1 mSv per year for members of the public;

- measures requiring hospitals to provide radiation protection information to patients who undergo nuclear medicine therapy;

- the establishment of more stringent regulations to ensure public safety, such as strengthening the requirements governing the packaging and transportation of nuclear materials and tighter security requirements at reactor sites;

- requirements that licence applicants submit information on the effects of their operations on the environment, both for radioactive and non-radioactive hazardous substances so as to help in establishing the operating parameters for a particular nuclear facility.

As a result of Canada's federal system, certain nuclear activities have sometimes been subjected to overlapping or duplicative regulation by both the federal and provincial governments. This has become an issue of particular importance for uranium mining and milling activities and for environmental regulatory requirements for all facilities. The new Act includes provisions that will allow the CNSC to minimise overlap and duplication with provincial requirements. The new legislation, for example, authorises the CNSC to enter into agreements with other jurisdictions that may provide for an integrated regulatory regime in respect of specific activities. It also recognises the possibility of incorporating provincial laws, standards and codes into the Commission's regulations.

The Nuclear Safety and Control Act replaces the Atomic Energy Control Act (see *Nuclear Law Bulletin* Nos. 14, 21, 26, 29, 30, 32, 33, 37, 44 and 49), the legislation governing the nuclear industry since its adoption in 1946. To ensure a smooth transition to the new regime and in recognition of the nuclear industry's need for time to adapt to the new regulations, some of the changes will be phased in over time. Furthermore, given that there are in excess of 4 000 nuclear licences administered by the CNSC, those licences will be revised on a progressive basis, with current licences issued by the CNSC's predecessor the Atomic Energy Control Board, continuing to apply until they expire or are amended. As a result, temporary exemptions from some of the new regulatory requirements will be in effect for a period of between six months and two years, although no temporary exemption will be granted if it would pose an unreasonable risk to health, safety, security or protection of the environment.

Like its predecessor, the CNSC is committed to operating in an open and transparent manner so that the public has the opportunity of becoming involved in the regulatory process for nuclear facilities. The CNSC is required to give notice to the public at least 60 days before the start of a public hearing. CNSC hearings are open to the public, including the media, and both oral and written presentations to the Commission can be made at those public hearings. In keeping with this philosophy, the CNSC is also committed to taking into account the views, concerns and opinions of interested parties and intervenors when establishing policy, making licensing decisions, and implementing programmes.

People's Republic of China

Third Party Liability

Amendment of the Law on Product Quality (2000)

The Law on Product Quality, adopted on 22 February 1993, was amended on 8 July 2000 with effect from 1 September 2000. The amendment contains a new provision (Section 2 of Article 73) relating to nuclear products, which provides that liability for damage caused by nuclear installations and nuclear products shall only be governed by the Law on Product Quality if no specific legislation

on the subject is in force. In this respect, the statement made by the State Council, entitled "Official Written Reply of the State Council concerning the Handling of Third-Party Liability" (Guo Han 1986, No. 44) (see *Nuclear Law Bulletin* No. 61) could be considered to constitute such specific legislation. This is the only legal instrument which addresses nuclear third party liability in China, and it refers to the major principles of the international instruments on nuclear third party liability, in particular the limited, strict and exclusive liability of the operator.

France

Organisation and Structure

Decree on the Atomic Energy Commission (2000)

Decree No. 2000-599 of 29 June 2000 modifies the membership of the Atomic Energy Commission, set out under Section 3 of Decree No. 70-878 of 29 September 1970 on the Atomic Energy Commission (see *Nuclear Law Bulletin* Nos. 6, 28, 30 and 33). The Atomic Energy Commission is now comprised of twelve permanent members under the chairmanship of the Prime Minister or a Minister delegated by him. These twelve members are the General Administrator, the Chief of Staff of the Army, the Secretary General of the Ministry of Foreign Affairs, the General Delegate for Armaments, the Secretary General of the administration of the Ministry of Defence, the Director General for Energy and Raw Materials, the Director General of the Information Technology Industry and the Post Office, the Director of the Budget, the Director for the Safety of Nuclear Installations, the Director for Research, the Director of Technology, the Chairperson of the Board of Governors of the National Centre for Scientific Research, one person chosen by the Prime Minister, one person chosen by the Minister for the Environment and three members qualified in the scientific and industrial field, one of whom assumes the role of High Commissioner.

Decree delegating power of signature to the High Commissioner for Atomic Energy (2000)

Pursuant to Section 2 of the Decree of 11 October 1999 on Major Nuclear Installations Classified as Secret (*installations nucléaires de base secrètes* – INBS) (see *Nuclear Law Bulletin* No. 65), which entrusted the High Commissioner for Atomic Energy with the responsibility of ensuring the safety of all major nuclear installations, both under the aegis of the Ministry for Defence and the Ministry for Industry, the above-mentioned Decree was adopted on 17 July 2000. The purpose of this Decree is to delegate the powers of the Minister for Defence to the High Commissioner, in his role as safety authority, in relation to those INBS which are under the aegis of the Defence Ministry. The Decree specifies that acts or decisions which do not have a direct effect on the availability and the operational application of military nuclear means are excluded from the scope of these delegated powers.

Radiation Protection

Amendment of the Decree on Emergency Plans (2000)

Decree No. 2000-571 of 26 June 2000 amends Decree No. 88-622 of 6 May 1988 on Emergency Plans, adopted in implementation of the 1987 Act on the Organisation of Public Safety Measures, Forestry Protection and the Prevention of Major Risks (see *Nuclear Law Bulletin* No. 40). It aims to extend the application of the 1988 Decree to Major Nuclear Installations Classified as Secret (*installations nucléaires de base secrètes* – INBS) and to amend the provisions concerning special action plans (*plans particuliers d'intervention*). In this respect, all nuclear sites where at least one nuclear installation is located, irrespective of whether or not it has been classified as secret, and which present certain characteristics, should have a special action plan. The definition of such a plan will also concern two new types of installations: units for the production of radioactive materials for military use and units for the fabrication, assembly or implementation of elements containing radioactive material for military use.

Circular on the Prevention of Major Accidents involving Dangerous Substances or Preparations Present in Certain Categories of Installations Classified for Environmental Protection Subject to Licencing (2000)

This Circular of 10 May 2000 aims to clarify the new requirements introduced by Directive 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances (Seveso II Directive) (see *Nuclear Law Bulletin* No. 59) in relation to the following areas:

- the major-accident prevention policy and the safety management systems;
- hazard studies;
- the use of outside experts;
- land-use planning;
- inventory of establishments.

Regime of Nuclear Installations

Decree on the Final Shut-down and Dismantling of the Installation for the Fabrication of Nuclear Fuel Operated by the Franco-Belgian Fuel Fabrication Society at Pierrelatte (2000)

This Decree No. 2000-434, adopted on 22 May 2000 (Official Journal of 25 May 2000), approves the provisions governing activities related to the final shut-down and dismantling of the nuclear fuel fabrication installation at Pierrelatte, in the Drôme region, as established in various texts, subject to the conditions described below. The objective of these provisions is to render the premises of this facility free from any of the obligations which apply to a nuclear installation, in particular through the decontamination of all material or equipment which has a significantly high rate of contamination, discarding or re-cycling such material or equipment, and ensuring the radioactive decontamination of the entire premises.

Pursuant to this Decree, the Franco-Belgian Fuel Fabrication Society (*Société franco-belge de fabrication du combustible*) is required throughout these operations, as operator of the installation, to ensure that the rules governing the protection against the risk of dissemination of radioactivity in the installation or into the environment, and those concerning the protection of workers and the public against exposure to ionising radiation are observed, that the personnel involved in these operations receives adequate training and that all necessary measures are taken to limit radioactive and chemical wastes. It is also responsible during this period for radioactive and non-radioactive waste, and in this respect it must attempt to reduce the volume of such waste and ensure its optimal management. The disposal of radioactive waste should take place at latest six months after the publication of the Decree.

The Decree also establishes the limits of residual activity of the premises and the equipment of the installation. Finally, it provides that when all the activities involving the shut-down and dismantling have been concluded, the installation shall be removed from the list of Major Nuclear Installations.

Germany

General Legislation

Agreement on the future role of nuclear energy (2000)

On 14 June 2000, the Federal Government of Germany and the four main electrical utility companies signed this Agreement in order to restrict the future utilisation of existing nuclear power plants, while guaranteeing however the uninterrupted operation of such plants and the disposal of waste generated therefrom, as long as high safety standards are maintained and the requirements of German nuclear law are met.

The Agreement provides for the application of a residual electricity volume, *i.e.* the maximum volume of electricity which each plant is allowed to generate from 1 January 2000 until its decommissioning, which is calculated on the basis of a standard operating life of 32 calendar years from the commencement of commercial power operation. The right to operate a nuclear power plant will cease when the residual electricity volume, or that volume revised as a result of transfer from another installation, has been generated.

The Parties undertake to apply internationally-recognised high safety standards for the duration of the residual operating life of plants. The utility companies shall carry out safety reviews and submit the results to the supervisory authorities.

The Agreement also sets out requirements in relation to the interim storage, reprocessing and transport of radioactive waste.

On the basis of this Agreement, the government shall prepare a draft Act to Amend the 1959 Atomic Energy Act (see *Nuclear Law Bulletin* Nos. 1-4, 6, 9, 14-18, 34, 37, 44, 45, 47, 54, 59 and 61) to introduce provisions which will ban the construction of new nuclear power plants and provide for the compulsory establishment and use of storage facilities located in the immediate vicinity of nuclear power plants.

The text of this Agreement is available on the web-site of the Federal Environment Ministry at: www.bmu.de/english/fset1024.htm

Ireland

Radiation Protection

Radiological Protection Act 1991 (Ionising Radiation) Order (2000)

The above Order was adopted as Statutory Instrument No. 125 on 11 May 2000, and came into force two days later. It provides for the implementation of Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation (see *Nuclear Law Bulletin* No. 58). The Order also incorporates into domestic law the provisions of Council Directive 90/641/Euratom of 4 December 1990 on the operational protection of outside workers exposed to the risk of ionising radiation during their activities in controlled areas. This Order replaces the provisions of the European Communities (Ionising Radiation) Regulations 1991 (see *Nuclear Law Bulletin* No. 47), the Radiological Protection Act 1991 (General Control of Radioactive Substances, Nuclear Devices and Irradiating Apparatus) Order 1993 (see *Nuclear Law Bulletin* No. 55) and the European Communities (Protection of Outside Workers from Ionising Radiation) Regulations 1994. The above-mentioned 1991 and 1994 European Communities Regulations were revoked following the adoption on 16 May 2000 of Statutory Instrument No. 131.

The main changes introduced in this Order are:

- the inclusion of work activities involving exposure to natural sources of radiation;
- stricter application of existing radiation protection principles through the introduction of lower dose limits, the use of dose constraints in keeping doses as low as reasonably achievable (*i.e.* the optimisation process) and extended application of justification principles;
- the introduction of radiation protection principles for intervention in cases of radiological emergencies or lasting exposures.

Italy

Organisation and Structure

Establishment of the Nuclear Installation Management Company (1999)

Parliamentary Decree No. 79 of 16 March 1999 implements Directive 96/92/EC of the European Parliament and of the Council of 19 December 1996 concerning common rules for the internal market in electricity. Certain provisions of this Decree deal with nuclear-generated electricity. It thus provides for the establishment by the National Electricity Company (*Ente Nazionale per*

l'Energia Elettrica – ENEL) of a body responsible for the management of activities related to the shut-down of nuclear power plants, namely the Nuclear Installation Management Company (*Società per la Gestione degli Impianti Nucleari* – SOGIN). SOGIN then formed a consortium with the *Fabbricazioni Nucleari* Company and the National Agency for New Technologies, Energy and the Environment (ENEA) with a view to ensuring the planning and co-ordination of the dismantling of research installations involved in the nuclear fuel cycle belonging to ENEA.

Radiation Protection

Decrees implementing the most recent Euratom Directives in the field of radiation protection (2000)

Parliamentary Decrees Nos. 187 and 241 were adopted on 26 May 2000 (Official Gazette of 7 July and 31 August 2000) pursuant to Community Law No. 25/99 (see *Nuclear Law Bulletin* No. 63).

These Decrees aim to implement Council Directives 97/43/Euratom of 30 June 1997 on health protection of individuals against the dangers of ionising radiation in relation to medical exposure and 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation.

Decree No. 187/2000 will enter into force on 1 January 2001 and will repeal the provisions on medical exposure contained in Decree No. 230/95 on the implementation of the Euratom Directives on radiation protection (see *Nuclear Law Bulletin* No. 56 and Supplement to *Nuclear Law Bulletin* No. 58). Decree No. 241/2000, which will also enter into force on 1 January 2001, will amend and complete Decree No. 230/95 taking into account the provisions of Directive 96/29, in particular with regard to natural sources of ionising radiation, intervention and possible exposure.

A note providing further details on these Decrees will be published in the next edition of the *Bulletin*.

Japan

Organisation and Structure

Reorganisation of the Japanese Government in the nuclear sector (2001)

Pursuant to the Government Reorganisation Basic Law (Law No. 103 of 12 June 1998) and various laws related to the administrative reform of central government adopted in July 1999, the structure of the Japanese Government will be re-organised on 1 January 2001. This re-structuring aims to reduce operating costs, to improve efficiency by streamlining the government's structure, and to strengthen the role of the newly-established Cabinet Office.

With regard to the administration of nuclear activities, the Nuclear Safety Commission (NSC) will be transferred from the Nuclear Safety Bureau of the Science and Technology Agency (STA) to the Cabinet Office. The Atomic Energy Commission (AEC) will also be placed within the Cabinet Office. Both Commissions will continue to play a central role in the administration of nuclear

activities, while responsibility for the definition and implementation of policy in this field will be shared by related ministries.

The Ministry of International Trade and Industry (MITI) and the Science and Technology Agency (STA) will also be re-organised. MITI will become the Ministry of Economy, Trade and Industry, and will deal with the uses of nuclear energy, including policy making in this field, technology development and safety regulation of nuclear power plants and the nuclear fuel cycle. STA will merge with the Ministry of Education to become the Ministry of Education, Culture, Sports, Science and Technology. This new Ministry will be responsible for the science and technology aspects of nuclear energy, including policy making in this field; the development of nuclear technologies; safety regulations governing research reactors; protection against radiation hazards; the use and transportation of nuclear materials; the use, storage and transportation of radioisotopes and peaceful uses of nuclear energy (safeguards).

Approval for the establishment of the Nuclear Waste Management Organisation (2000)

In October 2000, the Ministry of International Trade and Industry (MITI) (which will become the Ministry of Economy, Trade and Industry as of 1 January 2001) approved the application to establish a Nuclear Waste Management Organisation. This application was submitted to the MITI by the Federation of Electric Power Companies (FEPCO) on 4 October 2000 pursuant to Article 40 of the Law on Final Disposal of High-Level Radioactive Waste described below. The Organisation is responsible for the final disposal of high-level radioactive waste in Japan as described above.

Radioactive Waste Management

Law on Final Disposal of High-level Radioactive Waste (2000)

On 31 May 2000, the Parliament adopted Law No. 117 on the Final Disposal of High-Level Radioactive Waste, which was published in the Official Gazette on 7 June 2000 and entered into force on 1 November 2000.

This Law provides a legislative framework governing the underground disposal of high level radioactive waste in Japan. It contains provisions governing the definition and implementation of policy and the final disposal plan, the funds to finance such disposal activities and the entity responsible for carrying them out and procedures to be used for site selection. Safety regulations governing final disposal are to be prescribed in other legislation.

The main provisions are as follows:

- The Cabinet shall decide upon the Basic Policy for Final Disposal and the Final Disposal Plan based on a draft submitted by the Ministry of International Trade and Industry (MITI) (which will become the Ministry of Economy, Trade and Industry as of 1 January 2001) and taking into consideration the opinions of both the Atomic Energy Commission and the Nuclear Safety Commission. The Basic Policy shall examine *inter alia* the approach taken in relation to disposal plans, preliminary studies, policy measures designed to promote the understanding of local inhabitants, and development of technology for final disposal of high level radioactive waste.

- The Nuclear Waste Management Organisation is to be established as a private law company, with no funds provided by the government, and is to be licensed and supervised by the Ministry. This Organisation is entrusted with the task of implementing the final disposal of high-level radioactive waste. The operators of nuclear power plants shall pay a specific fee, determined by the Ministry, to this Organisation every year. The final disposal cost per 1 kWh of nuclear power generated is estimated at approximately 0.14 yen (JPY), for the disposal of 40 000 canisters of vitrified waste (the amount of vitrified waste generated from nuclear power generation in Japan from its inception to 2015), the estimated cost will be JPY 3 trillion. High-level waste originating from research and experimental reactors is not subject to an annual fee, but may be accepted by the Organisation for final disposal if this does not disrupt normal business activity.

- In selecting the final disposal site, the Organisation shall follow a three-step procedure. First, it shall select a Preliminary Survey Site, following the results of a survey taking into account geological disturbances caused by earthquakes or other natural phenomena. At that site, tests shall be carried out to determine the stability of the geological stratum, resulting in the choice of a Specific Survey Site. Finally, the Organisation shall select a Final Disposal Site where the final disposal facilities are to be constructed. The Ministry is to review the Final Disposal Plan upon selection of the Final Disposal Site by the Organisation, taking into account the opinions of the governor, the mayor and the head of the village where the site is located.

- The Law specifies that should the Organisation encounter difficulties in continuing operations, the Ministry shall take over its responsibility until such time as appropriate measures, such as the transfer of its operations, shall be established by legislation.

Kazakhstan

Radiation Protection

Requirements for the Quality Assurance Programme on Radiation Safety for Certain Activities connected with the Use of Atomic Energy (1999)

These Requirements, which aim to comply with ISO quality assurance standards, were adopted by the Atomic Energy Committee (AEC) on 1 December 1999. All enterprises using atomic energy under the supervision of AEC are required to comply with this quality assurance programme.

Transport of Radioactive Materials

Regulation on Safe Transport of Radioactive Materials (1999)

This Regulation, adopted by the Atomic Energy Committee on 1 March 1999, is based on the IAEA Safety Standards Series No. ST-1/Requirements – Regulations for the Safe Transport of Radioactive Material – 1996 Edition.

Regulations on the Elimination of Effects of an Accident during the Transportation of Nuclear Materials by Rail and Road (1999)

These Regulations, adopted on 12 October 1999, are based on IAEA Recommendations. They define the main principles and procedure governing interaction between the local and central executive organisations responsible for transportation of radioactive materials by rail and road. They also establish the procedure for eliminating effects of accidents occurring during transportation.

Lithuania

Regime of Nuclear Installations

Law on the Decommissioning of Unit 1 at Ignalina NPP (2000)

Law No. VIII-1661, adopted on 2 May 2000, sets out the legal basis for the decommissioning of Unit 1 at the Ignalina Nuclear Power Plant (INPP). It states that preparatory activities for the decommissioning of Ignalina 1 shall end no later than 1 January 2005. The exact date of its final shut-down shall be decided by the government, following its consideration of a decommissioning programme and a decommissioning plan, including the future financing of such decommissioning by the Republic of Lithuania and sources of international financial assistance.

The government was requested to prepare and approve a decommissioning programme before 1 November 2000. This programme shall provide for the legal, organisational, financial and technical means for the final shut-down of Unit 1, including the decommissioning, dismantling and conservation of the installations; radioactive waste management and disposal; safety measures for the continued operation of Unit 2, and measures to mitigate the negative social, economic and possibly health consequences which may result from the early closure of Ignalina 1. Pursuant to this programme, INPP is to develop a detailed decommissioning plan.

Decommissioning of Ignalina 1 shall be financed from the INPP Decommissioning Fund (established by Decree No. 1403 of 2 November 1995), international financial assistance and bank loans.

Luxembourg

Regulations on Nuclear Trade

Provision on nuclear energy import ban in the Law on the Liberalisation of the Electricity Market (2000)

The Law on the Liberalisation of the Electricity Market, adopted on 23 May 2000, aims to open the market for electricity in Luxembourg to competition. The Law contains a provision which allows the government to reject contracts for the supply of electricity from countries outside the European Union where it is demonstrated that the electricity is generated by facilities whose technology is not state of the art, and which pose a direct or indirect threat to persons, or if the supplier fails to demonstrate a state-of-the-art waste management plan or concept. This provision, inspired by the Austrian Law on the Electricity Market, aims to ban energy imports, including nuclear energy imports, from installations whose safety and waste management do not comply with the standards applied in the European Union, in particular from Soviet-designed nuclear installations.

Netherlands

Organisation and Structure

Transfer of Nuclear Safety Department to Ministry for Housing, Regional Development and the Environment (2000)

Following the adoption of a Royal Decree, the Dutch Nuclear Safety Department (*Kernfysische Dienst* – KFD) was transferred with effect from 1 June 2000 from the Ministry of Social Affairs and Employment to the Ministry for Housing, Regional Development and the Environment.

Portugal

Organisation and Structure

Decree-Law on the National Uranium Undertaking (1999)

Decree-Law No. 376/90 of 30 November 1990, which transformed the National Uranium Undertaking (ENU) into a limited company, also acknowledged its exclusive right to prospect for, extract and market uranium ores in Portugal (see *Nuclear Law Bulletin* Nos. 20 and 44).

On 6 November 1999, Decree-Law No. 468/99 was promulgated in order to extend ENU's rights in this respect to other companies, with a view to ensuring that the Nisa mining project progresses satisfactorily. The companies concerned are required, however, to associate ENU in their work, and must hold a joint licence from the Ministries of Finance and Economic Affairs.

This Decree entered into force on 6 November 1999 when it was published in the Official Journal.

Romania

Radiation Protection

Order on Basic Standards for Radiological Safety (2000)

The President of the National Commission for the Control of Nuclear Activities (CNCAN) issued Order No. 14 approving the Basic Standards for Radiological Safety on 24 January 2000 (published in Official Bulletin Nos. 404 and 404bis/29 August 2000). This Order incorporates into Romanian legislation the principles established in Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation. The standards also take into account the latest recommendations of the International Atomic Energy Agency, Safety Series No. 115/1996, and the International Commission on Radiological Protection (ICRP No. 60/1992).

Regime of Radioactive Materials

Order on Fees for Licensing Activities (2000)

On 26 April 2000, the President of the National Commission for the Control of Nuclear Activities (CNCAN) issued Order No. 104 to approve the Fees for Licensing Activities in the Nuclear Field (published in Official Bulletin No. 358/1 August 2000). This text was adopted in order to adjust the existing fees in relation to the inflation rate. Values in US dollars, however, remain unchanged. Pursuant to Governmental Decree No. 135/1997, published in Official Bulletin No. 73/2 April 1997, all taxes in respect of activities in the nuclear field, which in Romania amount to 10% of the fees, are paid into the state budget, whereas only 50% of the fees are lodged to the state budget and the remaining 50% go to the budget of the regulatory body.

Slovak Republic

To implement the 1998 Law on the Peaceful Use of Nuclear Energy (see *Nuclear Law Bulletin* Nos. 60 and 61, and the Supplement to *Nuclear Law Bulletin* No. 62), the Nuclear Regulatory Authority adopted a series of Decrees and Regulations described below.

Radiation Protection

Decree on Emergency Planning in the Event of a Nuclear Incident or Accident (1999)

The above-mentioned Decree No. 245, which was adopted on 6 September 1999 and entered into force on 1 October 1999, regulates on- and off-site emergency planning; emergency transport

procedures; measures and procedures for the prevention, elimination and mitigation of the effects of accidents; public information; identification of hazardous areas in the vicinity of nuclear facilities; and frequency of emergency exercises.

The nuclear and radiation emergency response system will be put into operation in the event of a release of radioactive materials into the environment from a nuclear facility, spent nuclear fuel or radioactive waste on national territory or abroad, or from nuclear materials during transportation.

The Decree sets out in detail the content of the on-site emergency plan to be developed by the operator, as well as the off-site emergency plan and the emergency transport procedure. It differentiates between three emergency levels (alert, site area emergency and general emergency), setting out measures to be taken at each level. Measures include notification of authorities, public warnings, public protection measures such as recommendations to shelter indoors or evacuation and monitoring of the radiological situation.

Regime of Nuclear Installations

Decree on the Qualifications of Personnel of Nuclear Installations (1999)

The above-mentioned Decree, which was adopted on 21 July 1999 and entered into force on 1 August 1999, sets out the list of nuclear activities which may only be carried out by duly qualified personnel. It further establishes methods and procedures to verify the particular safety qualifications of personnel. The Decree also provides that the Nuclear Regulatory Authority shall issue a certificate to personnel for this purpose, which is valid for two years.

Regulation on Events Occurring in Nuclear Installations (2000)

The above-mentioned Regulation No. 31, which was adopted on 20 January 2000 and entered into force on 15 February 2000, classifies events occurring in nuclear installations into the following categories:

- failures: such as fire on the site of the nuclear installation, or loss or theft of nuclear materials, etc;

- incidents: covers events included in the above category where they cause damage of a non-serious nature to the nuclear installation, damage to the health of employees, contamination or irradiation of persons, leakage of radioactive substances on the premises and the site, etc;

- accidents: serious damage to the nuclear installation, serious health injury, leakage of radioactive substances into the environment, etc.

The Regulation also describes the method of notifying such events to the Nuclear Regulatory Authority, including the time period allowed to provide reports and the content of such reports, methods of determining the cause of events through investigations and reporting to the public on incidents and accidents.

Decree on Documentation on Nuclear Installations during Decommissioning (1999)

The above-mentioned Decree No. 246, which was adopted on 13 September 1999 and entered into force on 1 October 1999, provides details on the scope and contents of documentation which must be submitted by the operator to the Nuclear Regulatory Authority during the evaluation of the revised conceptual plan for the decommissioning of a nuclear installation, for the issue of a decommissioning permit and licences for each individual phase of decommissioning, the renewal of a licence or issue of a permit to change the purpose of a nuclear installation through its reclassification.

Regime of Nuclear Materials (including Physical Protection)

Decree on Accounting for and Control of Nuclear Materials (1999)

The above-mentioned Decree No. 198, which repealed a 1977 Decree of the Czechoslovak Atomic Energy Commission on the same topic, was adopted on 26 July 1999 and entered into force on 1 September 1999.

This Decree defines in detail how to maintain accounting and operating records, carry out inspections of nuclear materials and provide reports and notifications of nuclear materials.

Decree establishing Requirements for the Physical Protection of Nuclear Facilities, Nuclear Materials and Radioactive Waste (1999)

Decree No. 186, which was adopted on 13 July 1999 and entered into force on 1 August 1999, sets out requirements to ensure the physical protection of nuclear facilities, nuclear materials and radioactive waste including the issue of a permit to enter into protected areas. It also lays down criteria to categorise nuclear facilities, nuclear materials and radioactive waste.

Radioactive Waste Management

Regulation establishing Requirements for the Management of Radioactive Waste and Spent Nuclear Fuel (2000)

Regulation No. 190, which entered into force on 1 July 2000, establishes requirements governing the safe management of radioactive waste and spent nuclear fuel. It sets out the procedure and safety requirements to be followed by organisations and their employees who design, build, produce, commission, operate, repair, and decommission nuclear installations during the handling, processing, storage or transport of radioactive waste or during the handling, storage and reprocessing of spent nuclear fuel.

Transport of Radioactive Materials

Decree establishing Requirements for Transport of Radioactive Materials and Waste (1999)

The above-mentioned Decree No. 284, which was adopted on 13 October 1999 and entered into force on 15 November 1999, is based on the IAEA Safety Standards Series No. ST-1 – Regulations for the Safe Transport of Radioactive Material (1996 Edition). It sets out the conditions governing road, rail, water and air transport of radioactive materials, radioactive waste from nuclear facilities and spent nuclear fuel. The Decree establishes the scope and content of the documentation required in order to obtain a permit for the transport of radioactive material. In particular, it establishes prescriptions governing safety and physical protection during the transport of radioactive materials.

Slovenia

Regulations on Nuclear Trade

Act on Export Control of Dual-Use Goods (2000)

This Act was adopted in March 2000 (Official Gazette No. 31/00) in order to enforce the export control of equipment, material and technology which may be used for the production of nuclear, chemical and biological weapons or missile technology ammunition and explosives. In particular, the Act provides that a licence, issued by the Ministry of Economic Relations and Development after consultation of various ministries, is required to export dual-use goods. This licence, which is issued for a renewable period of one year, may be modified or revoked.

In addition to the licensing procedure, the Act determines the obligations of exporters. The Ministry is required to keep a record of licences issued and export operations carried out, and to inspect the dual-use goods and the related-documentation, while the customs authorities are responsible for monitoring the export of dual-use goods and assessing exporters' compliance with the terms of the licence.

Finally, the Act provides for penalties in the event of breach of its provisions.

On 18 May 2000, pursuant to the above-mentioned Act, the government issued a Decision setting out the list of dual-use goods, the export of which is subject to licensing.

The new export control regime governing dual-use goods has taken into account the Nuclear Supplier Group measures for nuclear non-proliferation, as set out in IAEA document INFCIRC 254/Parts I and II, as well as the European Union regime for the control of exports of dual-use goods, established in Council Regulation (EC) No. 3381/94 of 19 December 1994.

Spain

Organisation and Structure

Transfer of responsibilities in the field of nuclear energy (1999)

Since May 2000, the activities of the Ministry of Industry and Energy in the field of nuclear energy have been transferred to the Ministry of Economy. The Minister is now responsible for granting licences in respect of nuclear power plants. All other operations involving licences, authorisations and permits, and in general, the previous responsibilities of the Directorate-General for Energy (within the Ministry of Industry and Energy), are now assumed by the Directorate-General for Energy Policy and Mines (within the Ministry of Economy). This Directorate-General is comprised of a number of Sub-directorates, including the Sub-directorate of Nuclear Energy.

Redefinition of the tasks of the Nuclear Safety Council (1999)

Pursuant to Act No. 14/1999, adopted on 4 May 1999, the tasks of the Nuclear Safety Council (NSC) as established in Act No. 15/1980 (see *Nuclear Law Bulletin* No. 25) have been re-defined and broadened. This Act extends the current functions of the NSC in relation to inspection and control of radioactive installations to other tasks related to radioactive waste management and nuclear and radiological emergencies, even where such emergencies do not take place in nuclear or radioactive installations.

In particular, the NSC has now been attributed tasks related to the surveillance of radioactivity in the environment, and to the licensing and control of entities which provide services to nuclear and radioactive installations.

Regime of Nuclear Installations

New Regulations on Nuclear and Radioactive Installations (1999)

Pursuant to Royal Decree No. 1836/1999, adopted on 3 December 1999, new Regulations on Nuclear and Radioactive Installations were approved. These Regulations repeal and replace the Regulations of the same name adopted on 21 July 1972 by Decree No. 2869/1972, as amended on several occasions (see *Nuclear Law Bulletin* Nos. 3, 8, and 10).

The new Regulations introduce a number of changes into the licensing procedures. Nuclear installations are still subject to three different licences: site (preliminary), construction and operating licences. Operators of storage facilities may request and obtain both site and construction licences in one step. The Minister of Economy is now responsible for granting these licences, whereas the Directorate-General for Energy Policy and Mines within the Ministry of Economy delivers other licenses and permits, including those which are necessary for the dismantling and decommissioning of nuclear installations.

Radioactive installations are divided into three categories, and only those in the first category, *i.e.* installations related to the nuclear fuel cycle, are subject to the same procedure as for nuclear

installations. The other two categories are governed by a simplified procedure, which contains nevertheless sufficiently stringent radiological protection provisions to ensure that safety conditions prevail. To this end, the Regulation includes provisions implementing Council Directive 96/29/Euratom laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation (see *Nuclear Law Bulletin* No. 58), and other EU standards. The Minister of Economy is responsible for issuing licences for the first category of radioactive installations; the second and third categories receive their licences from the Directorate-General for Energy Policy and Mines, or in certain cases, this task has been entrusted to the authorities of the Autonomous Communities (regions).

The Nuclear Safety Council (NSC) plays an important role in the above procedure, as no licence, authorisation or permit may be delivered without its prior favourable opinion. Furthermore, the NSC is responsible for inspecting and controlling nuclear and radioactive installations during their life cycle.

Ukraine

Regime of Nuclear Installations

Law on the Licensing of Activities in the Field of Nuclear Energy (2000)

This Law was adopted on 11 January 2000 and entered into force on the same date (see *Nuclear Law Bulletin* No. 65). The text of this legislation is reproduced in the Supplement to this *Bulletin*.

United Kingdom

Organisation and Structure

Re-organisation of the regulatory body responsible for the physical security of the civil nuclear industry (2000)

The Directorate of Civil Nuclear Security within the UK Atomic Energy Authority (UKAEA), responsible for the physical security of the civil nuclear industry, has been renamed the Office for Civil Nuclear Security (OCNS), given new status, and placed under the auspices of the Department of Trade and Industry (DTI). This Office, which operates as an independent unit within the DTI, acts as the government's security regulator and accordingly is responsible for protecting the civil nuclear industry against the threats of terrorism and the dangers of nuclear weapons proliferation. One of its specific tasks is to set out security requirements for nuclear sites and the use, storage and transport of special nuclear materials. This role includes, for instance, setting the right staffing levels for the police who guard the various sites. In light of the changes to the role of the UKAEA, the UK Government believes that it is no longer appropriate for such security assessment functions to be carried out under the auspices of the UKAEA. The OCNS will report annually to the Minister for Energy, and will be advised by an advisory board.

United States

Organisation and Structure

Establishment of the National Nuclear Security Administration (2000)

Pursuant to Title 32 of the National Defence Authorisation Act for Fiscal Year 2000 (Public Law 106-65), the National Nuclear Security Administration (NNSA) was established as a separate agency within the US Department of Energy (DOE) on 1 March 2000.

The mission of the NNSA is to carry out the national security responsibilities of the DOE including maintenance of a safe, secure and reliable stockpile of nuclear weapons and associated materials capabilities and technologies; promotion of international nuclear safety and non-proliferation; and administration and management of the naval nuclear propulsion programme.

To this end, the NNSA is required to:

- enhance US national security through the military application of nuclear energy;
- maintain and enhance the safety, reliability, and performance of the US nuclear weapons stockpile, including the ability to design, produce, and test, in order to meet national security requirements;
- provide the US Navy with safe and militarily effective nuclear propulsion plants and to ensure the safe and reliable operation of those plants;
- promote international nuclear reactor safety and non-proliferation;
- reduce the global danger posed by weapons of mass destruction; and
- support programmes for the storage and disposal of surplus fissile materials, including highly enriched uranium and plutonium.

The NNSA is headed by an Administrator for Nuclear Security who is the DOE Under Secretary for Nuclear Security.

Environmental Protection

Cross-Border Co-operation and Environmental Safety in Northern Europe Act (2000)

This Act (Public Law 106-255), adopted on 2 August 2000, aims to supplement the programme entitled "The United States Northern Europe Initiative (NEI)", established pursuant to the 1997 Agreement between the United States and the countries of Northern Europe (*i.e.* Belarus, Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, Norway, Poland, the north-west region of the Russian Federation and Sweden). This programme aims to promote stability in the Baltic Sea region and to strengthen key institutions and security structures of the US and the countries of Northern

Europe. The Initiative focuses in particular on environmental problems in the region, in particular those posed by nuclear waste and spent nuclear fuel management.

The Act provides that the United States will provide (a) Eastern Europe and the Baltic States and (b) the Independent States of the Former Soviet Union with an amount of not less than 2 million US dollars for each group to assist them in implementing NEI projects.

The Act furthermore calls upon the Russian Federation to rapidly conclude pending nuclear waste management agreements to enable assistance programmes to go forward.

Third Party Liability

Energy Employees Occupational Illness Compensation Programme Act (2000)

On 6 October 2000, the Congress adopted this Act to ensure that persons having performed activities related to nuclear weapons production and testing programmes of the Department of Energy (DOE) receive uniform and adequate compensation for illnesses and diseases resulting from exposure to beryllium or ionising radiation. For this purpose, the Act provides for the establishment of an Energy Employees Occupational Illness Compensation Programme and Fund. This Fund will be financed by the General Fund of the Treasury.

Pursuant to this Act, the President is required to submit a bill to Congress no later than 15 March 2001 in order to implement the compensation programme. This bill will determine in particular the types of compensation and benefits, including lost wages and medical benefits, to be provided under the compensation programme; and whether to expand the regime to include other illnesses associated with exposure to toxic substances.

Under this legislation and from 31 July 2001, an employee or his survivors will be eligible to receive 150 000 US dollars (USD) in compensation for disability or death resulting from an occupational illness, plus prospective medical payments. Uranium miners and millers with cancer and lung disease will also be eligible to receive, in addition to the sum awarded under the 1990 Radiation Exposure Compensation Act (see *Nuclear Law Bulletin* No. 47), USD 50 000 plus medical benefits.