

NATIONAL LEGISLATIVE AND REGULATORY ACTIVITIES

Argentina

Organisation and Structure

Reorganisation of the National Atomic Energy Commission and the Nuclear Regulatory Authority (2001-2002)

The composition of the National Atomic Energy Commission (*Comisión Nacional de Energía Atómica – CNEA*) was modified by Decree No. 1065 adopted by the National Executive Power on 23 August 2001 (Official Register of 28 August 2001). The governing body of the CNEA is now comprised of one president and one vice-president, rather than the six directors, including the President, who previously held office.

Furthermore, Decree No. 357 of 21 February 2002 (Official Register of 22 February 2002) ratified the decision to place the CNEA and the Nuclear Regulatory Authority (*Autoridad Regulatoria Nuclear – ARN*) under the authority of the President, through the General Secretary of the Presidency (see *Nuclear Law Bulletin* No. 68).

Belarus

Organisation and Structure

Restructuring of Promatomnadzor (2001)

Pursuant to Decree No. 516 on Improvement of the System of Bodies of State Administration and other State Organisations adopted by the President of the Republic of Belarus on 24 September 2001, a radical reform of the state administration system was carried out. The Committee for Supervision of Industrial and Nuclear Safety under the authority of the Ministry for Emergencies of the Republic of Belarus (*Promatomnadzor*) was transformed into the Department for Supervision of Industrial and Nuclear Safety of the Ministry for Emergencies of the Republic of Belarus (title remains *Promatomnadzor*) which has legal personality.

On 29 November 2001, the Ministry for Emergencies adopted Resolution No. 17 approving an Order setting out the tasks of the newly-established Department. *Promatomnadzor* is habilitated to carry out special functions, *inter alia* of a regulatory, control, supervisory and executive nature, in the

fields of industrial, technical, nuclear and radiation safety, safe transportation of dangerous goods, and protection and rational use of mineral resources. It is also responsible for the prevention of technology-related accidents at hazardous industrial and other facilities posing an abnormally high danger on the territory of the Republic of Belarus, and for regulating activities of organisations responsible for ensuring safety and prevention of accidents at such installations.

Belgium

Radiation Protection

Amendment of the Radiation Protection Act (2000)

The Act of 1994 on Protection of the Population and the Environment against the Dangers of Ionising Radiation and providing for the setting up of the Federal Agency for Nuclear Control, amended on numerous occasions (see *Nuclear Law Bulletin* Nos. 53, 54, 59, 61 and 64) was further amended by an Act of 10 February 2000 [Official Journal (*Moniteur belge*) of 6 April 2000, second edition, p. 10827].

This Act established a transitional regime pending the establishment of the Federal Agency for Nuclear Control. This regime, which provided for the transfer of certain responsibilities of the Agency, ceased to exist when the Agency became fully operational on 1 September 2001.

Pursuant to this Amending Act, the operators of nuclear installations were obliged to entrust licensed bodies with the permanent control over the physical protection service, the reception of new installations and the approval of certain decisions taken by the physical protection service.

Royal Order establishing General Regulations for the Protection of the Population, Workers and the Environment against the Dangers of Ionising Radiation (2001)

This Order was adopted on 20 July 2001 by the Minister of the Interior in implementation of the Act of 1994 on Protection of the Population and the Environment against the Dangers of Ionising Radiation and providing for the setting up of the Federal Agency for Nuclear Control (see *Nuclear Law Bulletin* Nos. 53, 54, 59, 61 and 64). This Order implements Council Directives 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) and 97/43/Euratom of 30 June 1997 on health protection of individuals against the dangers of ionising radiation in relation to medical exposure (see *Nuclear Law Bulletin* No. 60). It aims to ensure the protection of workers, the public and the environment against the risk of exposure to ionising radiation, of natural or artificial origin, in relation to professional practices or activities which involve such a risk, or to measures in an emergency situation or in relation to long-term exposure.

This Order sets out in particular:

- regulations governing classified installations;
- the licensing and control regime governing nuclear installations; in this respect, the King is responsible for granting construction and operating licences for Class I installations,

including in particular nuclear reactors and installations for the storage or disposal of radioactive waste; the Federal Agency for Nuclear Control is, for its part, responsible for delivering construction and operating licences for the other types of installation, as well as licences for the destruction, recycling or reuse of solid radioactive waste produced in Class I, II or III installations;

- the basic standards of radiation protection, in particular the principles of justification, optimisation and dose limitation during practices and interventions: in relation to practices, the dose limit is set at 20 millisieverts (mSv) over 12 consecutive months for exposed workers, and at 1 mSv per year for members of the public; the Order furthermore provides that dose limits and guidance in relation to exposure levels during a radiological emergency for the workers and the emergency personnel concerned, may be established by the Agency;
- the regulation of the physical control of installations and equipment, including the delimitation of controlled zones, the medical control of workers, protection of the premises and individual protection of persons in controlled zones;
- the information and training systems for exposed workers;
- the radiation protection regime in relation to the management of radioactive waste;
- the regime governing transport and import of radioactive substances;
- measures for the radiological surveillance of the territory and the population, and emergency planning;
- the regulation of medical applications of ionising radiation;
- the regime governing natural radioactivity.

Brazil

Radioactive Waste Management

Law on Radioactive Waste Repositories (2001)

Although a first draft of this Law was initially submitted to the National Congress at the end of the 1980's (see *Nuclear Law Bulletin* No. 46), its final adoption only came about on 20 November 2001 (Official Journal of 21 November 2001). Law No. 10.308 establishes the legal framework governing the final disposal of radioactive waste produced in Brazil: siting, construction, operating licence, control, costs, compensation, third party liability and financial cover governing radioactive waste repositories.

The Federal Union is responsible for storing radioactive waste produced on national territory, through its National Nuclear Energy Commission (*Comissão Nacional de Energia Nuclear – CNEN*). The Commission is the competent authority for delivering licences for such repositories, in particular

in relation to aspects concerning transport, use and storage of radioactive waste and the safety and radiological protection of these facilities. Such activities must be carried out according to criteria, procedures and standards established by the CNEN.

Pursuant to this Law, it is permitted to construct and operate radioactive waste repositories divided into three categories: “initial”, “intermediary”, and “final”. In the event of a radiological or nuclear accident, the construction of temporary repositories will exceptionally be allowed.

The responsibility, including financial responsibility, in relation to the siting, design, construction, installation, management, operation and physical protection maintenance of initial repositories, lies with the producers of radioactive waste, whereas for the other categories of repository, the CNEN is responsible for these same activities.

During the transfer of radioactive waste from initial repositories to intermediary or final repositories, the licence-holder transfers to the CNEN any rights it has in relation to the waste.

The licence-holder and the CNEN are furthermore held responsible, within their respective fields of competence, for damage to persons, property or the environment resulting from the release of radioactive emissions related to the activities of the repository over which they have control. Financial security such as that set out in Article 13 of Law No. 6.453 of 17 October 1977 (see *Nuclear Law Bulletin* Nos. 12 and 21; the text of this Law is reproduced in the Supplement to *Bulletin* No. 21) must consequently be obtained to cover such damage.

Canada

General Legislation

*Anti-Terrorism Act (2001)*¹

On 18 December 2001, the Canadian Government enacted the Anti-Terrorism Act (Statutes of Canada 2001, Chapter 41). The Act provides for measures to identify, prosecute, convict and punish terrorist groups and provides new investigative tools to law enforcement and national security agencies. The Anti-Terrorism Act has relevance to the nuclear field in that it defines as “terrorist activity” the existing offences in the Canadian Criminal Code that implement the 1980 Convention on the Physical Protection of Nuclear Material (see Section 4 – which adds a new Part II.1 to the Criminal Code) (the text of the Physical Protection Convention is reproduced in *Nuclear Law Bulletin* No. 24).

The Anti-Terrorism Act defines terrorist activity as an act or omission, in or outside Canada, that takes place or is threatened for political, religious or ideological purposes and threatens the public or national security by killing, seriously harming or endangering a person, causing substantial property damage that is likely to seriously harm people or by interfering with or disrupting an essential service, facility or system.

1 . The Anti-Terrorism Act is available on the Web in English and French at the following urls:
English version:
http://www.parl.gc.ca/37/1/parlbus/chambus/house/bills/government/C-36/C-36_4/C-36_cover-E.html
French version:
http://www.parl.gc.ca/37/1/parlbus/chambus/house/bills/government/C-36/C-36_4/C-36_cover-F.html

The Act creates new offences in relation to terrorist activity including financing, participating in or facilitating terrorist activity or terrorist groups. Maximum sentences for these offences are in the range of 10 to 14 years' imprisonment.

Czech Republic

General Legislation

Amendment to the Act on the Peaceful Uses of Nuclear Energy and Ionising Radiation (2001)

Act No. 18/1997 on the Peaceful Uses of Nuclear Energy and Ionising Radiation (the text of which is reproduced in the Supplement to *Nuclear Law Bulletin* No. 61; see also *Bulletin* No. 59) was amended by Act No. 13/2002. This Amending Act, adopted on 18 December 2001, will enter into force on 1 July 2002, with the exception of certain provisions which will enter into force upon the date of accession of the Czech Republic to the European Union.

The main purpose of this Amending Act is to ensure the full implementation of the relevant EC legislation into national law, in particular 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) and to guarantee observance of the Czech Republic's international obligations under the Comprehensive Nuclear Test Ban Treaty and the Additional Protocol to the Safeguards Agreement between the Czech Republic and the International Atomic Energy Agency. The Amending Act also introduces modifications deemed necessary for the practical implementation of the 1997 Act.

The Amending Act maintains both the structure of the 1997 Act and the basic principles governing the peaceful uses of nuclear energy and ionising radiation. The principal amendments are in the fields of radiation protection, emergency preparedness, international movements of radioactive materials and radioactive contamination of foodstuffs and feedingstuffs.

With regard to radiation protection, new provisions specify the various types of exposure (occupational exposure, medical exposure, emergency exposure of individuals or of emergency personnel, long-term exposure and potential exposure) and deal with supervised and controlled areas, radiation workers, and clearance levels.

Outside workers are now required to have a personal radiological monitoring document. Intentional addition of radioactive substances to foodstuffs, toys, jewellery or cosmetic products, or the import or export of such contaminated products, are prohibited. The shipment of radioactive waste to some specific zones is also prohibited.

Amendments to the Regulations implementing the 1997 Act are under preparation.

Egypt

Regime of Radioactive Materials

Decision establishing the List of Hazardous Nuclides Emitting Ionising Radiation (2000)

Pursuant to Law No. 4 of 1994 on the Environment, the Atomic Energy Authority issued Decision No. 636 establishing the List of Hazardous Nuclides Emitting Ionising Radiation on 1 August 2000. Pursuant to this Decision, it is prohibited to handle hazardous substances emitting ionising radiation during the import, export, production, storage, transport, and use of such substances, without a licence issued by the Atomic Energy Authority in compliance with established procedures.

Radioactive Waste Management

Regulations on the Safety of Radioactive Waste Produced by Users of Radioactive Materials (1998)

These Regulations No. 1166, issued by the Atomic Energy Authority on 26 November 1998, aim to ensure safety at all stages of radioactive waste management, i.e. collection, segregation, treatment, conditioning, transportation, storage and disposal, in particular by the establishment of criteria to monitor the release of radioactive effluent, and of an effective control and disposal system to ensure the protection of the workers, the public and the environment.

These Regulations do not apply to the waste associated with nuclear power plants, nuclear fuel cycle activities or chemical processing of minerals or other substances containing naturally occurring radionuclides.

The Regulations provide that any activity involving radionuclides is subject to licensing by the regulatory authority, i.e. the Hot Laboratory and Waste Management Centre of the Atomic Energy Authority, and they list information which must be included in the licensing application. After issuing a licence, the regulatory authority must carry out controls to ensure that radioactive waste management activities are performed in a safe manner.

The Regulations lay down the responsibilities of the user of radioactive materials in order to ensure the safe management of the radioactive waste produced. User responsibilities are limited to the segregation, collection, interim storage, controlled release, monitoring and documentation, while responsibility for other activities lies with the Hot Laboratory and Waste Management Centre of the Atomic Energy Authority. Under the Regulations, the user of radioactive materials is, in particular, required to minimise the quantities of radioactive substances used and the volumes of radioactive waste produced; to observe the specified limits when discharging radioactive waste; to set up a system for the collection and segregation of radioactive waste; to regularly report to the regulatory authority on the disposal of radioactive waste and on any accident that occurred. There are also requirements regarding information which must be kept and updated. Furthermore, the radioactive material coordinator, appointed by the user, is responsible for exercising control over the radioactive waste management performed by the user.

The Regulations also establish principles governing waste collection and segregation, controlled releases of radioactive waste and its interim storage.

The responsibilities of the Hot Laboratory and Waste Management Centre of the Atomic Energy Authority in respect of the transportation, treatment, and interim storage pending conditioning or burial of waste are set out in detail in Part II of these Regulations. The Laboratory must obtain a licence for the transportation, treatment and conditioning of radioactive waste, and for the siting, design, operation and closure of a waste burial site. The Regulations establish criteria to be taken into account during siting, including the protection of the general public from radioactive releases, which must not cause exposure equivalent to an annual dose exceeding 0.25 mSv to the whole body. Protective measures for individuals operating the facility are also prescribed.

France

Organisation and Structure

Decree establishing the General Directorate for Nuclear Safety and Radiation Protection (2002)

Decree No. 2002-255 of 22 February 2002 amends Decree No. 93-1272 on the Organisation of the Central Administration of the Ministry for Industry, Postal Services, Telecommunications and Foreign Trade (see *Nuclear Law Bulletin* No. 53). It establishes, within the Ministry for Economy, Finance and Industry, a General Directorate for Nuclear Safety and Radiation Protection (*Direction générale de la sûreté nucléaire et de la radioprotection* – DGSNR). This new Directorate, which takes over the functions of the former Directorate for the Safety of Nuclear Installations (DSIN) at the Ministry for Industry and those of the former Office for Protection against Ionising Radiation (OPRI), is placed under the authority of the Ministers for Industry, the Environment and Health.

Its objective is to elaborate, propose and implement the Government's nuclear safety and radiation protection policies, with the exception of those relating to defence installations and activities.

To achieve this objective, the new DGSNR is required in particular to:

- prepare and implement all measures relating to the safety of major nuclear installations and the transport of radioactive and fissile material for non-military purposes;
- prepare and implement, in conjunction with the other competent bodies, all measures intended to prevent or limit health risks relating to exposure to ionising radiation;
- organise safety inspections of major nuclear installations and, in co-operation with the competent services of the Minister for Transport, inspections of transport operations involving radioactive and fissile material for non-military purposes;
- organise radiation protection inspections as required pursuant to the Public Health Code;
- organise permanent monitoring in relation to radiation protection, particularly the radiological control of the environment over the whole of the national territory;
- control releases of gaseous and liquid effluent produced in major nuclear installations;

- gather all pertinent information in the fields of nuclear safety and radiation protection, and on measures taken in this field in France or abroad, and to disseminate this information to the administrative bodies concerned;
- contribute to the information of the public on subjects related to nuclear safety and radiation protection.

Decree establishing the Institute for Radiation Protection and Nuclear Safety (2002)

Decree No. 2002-254 establishing the Institute for Radiation Protection and Nuclear Safety (*Institut de radioprotection et de sûreté nucléaire – IRSN*) was adopted on 22 February 2002, in implementation of the 2001 Act establishing the French Agency for Environmental Health Safety (see *Nuclear Law Bulletin* No. 68). This Decree aims in particular to set out the structure and tasks of the IRSN.

The new Institute, which merges the former Institute for Nuclear Safety and Protection (IPSN) and the former Office for Protection against Ionising Radiation (OPRI) into a new public utility company (an EPIC – *établissement public à caractère industriel et commercial*), is placed under the joint authority of the Ministers for Defence, the Environment, Industry, Research and Health. Its Board of Management is made up of 24 members whose term of office runs for 5 years, and a Director General nominated upon proposal of the Chairperson of the Board of Management. The Director General is assisted by a Deputy Director General. A Scientific Commission and Professional Ethics Commission have also been established.

The IRSN is entrusted with expert and research tasks in the following fields:

- nuclear safety;
- safety of transport of radioactive and fissile material;
- radiation protection;
- protection and control of nuclear materials;
- protection of nuclear installations and transport of radioactive and fissile materials against acts of malicious intent (theft or misappropriation of nuclear materials, or sabotage).

To fulfil this role, the IRSN carries out the following activities:

- it carries out expert studies, research, analyses, measurements or dose calculations, for public or private bodies;
- it defines research programmes in order to maintain and develop the necessary competence to ensure excellence in its fields of activity;
- it contributes to the radiation protection training of health professionals and professionally-exposed persons;
- it provides technical assistance to the General Directorate for Nuclear Safety and Radiation Protection, to the Delegate for nuclear safety and radiation protection for activities and

installations used for defence purposes (see *Nuclear Law Bulletin* No. 68), and to other State authorities and services which request such assistance; in the event of an incident or accident involving ionising radiation sources, it proposes technical, health and medical measures to these authorities, in order to ensure the protection of the public, workers and the environment and to restore the safety of the installation;

- it participates in the continual monitoring of radiation protection, especially by carrying out the radiological monitoring of the environment and through the management and use of dosimetric data concerning workers exposed to ionising radiation, and the management of the inventory of ionising radiation sources.

Amendment of the Decree on the Organisation of the Central Administration of the Ministry for Industry (2001)

The 1993 Decree on the Organisation of the Central Administration of the Ministry for Industry, Postal Services, Telecommunications and Foreign Trade (see *Nuclear Law Bulletin* No. 53) was amended by Decree No. 2001-1048 of 12 November 2001. This Decree redefines the responsibilities of the Directorate General for Energy and Raw Materials (DGEMP) which is now composed of a Directorate for Energy and Raw Mineral Resources and a Directorate for Energy Demand and Energy Markets.

The DGEMP is now responsible for the supervision, on behalf of the Minister for Energy, of all public establishments and public enterprises in its field, including the Atomic Energy Commission (CEA), National Agency for Radioactive Waste Management (ANDRA) and the Institute for Nuclear Safety and Protection (which has now become the Institute for Radiation Protection and Nuclear Safety).

The DGEMP is entrusted in particular with the following tasks:

- to elaborate and implement policy to ensure the security of supply of energy and raw materials, under competitive economic conditions, and also Governmental decisions concerning the civil nuclear sector, subject to the powers attributed to the nuclear safety and radiation protection authorities;
- to propose all measures necessary for the development in France and abroad of nuclear industry policy;
- to participate in the controls over exports of sensitive materials and nuclear equipment, in the co-ordination of preparatory work relating to transport of waste produced during the reprocessing of foreign spent fuel, and in the elaboration of regulations governing, in particular, nuclear third party liability and non-proliferation.

Order on the Organisation of the Ministry of Defence in Relation to the Operation of Military Nuclear Systems and Major Nuclear Installations Classified as Secret in the Fields of Nuclear Security (2001)

This Order of 27 July 2001, which entered into force on 1 January 2002, gives power to the General Delegate for Procurement, the Chief of Naval Staff, the Chief of Air Force Staff and the *Directeur du service à compétence nationale*, to exercise operating responsibilities in relation to

nuclear military systems, major nuclear installations classified as secret and associated means of support, which are within the realm of the Minister for Defence.

These responsibilities are divided between:

- the principal authorities (*autorités de synthèse*), which define the general principles of organisation in order to achieve and maintain the safety level specified by the Ministry of Defence for nuclear military systems, major nuclear installations classified as secret or the transport of associated fuel components. They participate in the drafting of safety and radiation protection rules and co-ordinate, at central level, actions to be taken in relation to accident prevention, to the manner to react to accidents, and to the radiological monitoring of the environment;
- the authorities in charge of implementation, which deploy the necessary material and human resources, apply rules and regulations in the field of nuclear security and ensure their application by subordinate bodies whose responsibilities lie also in the areas of nuclear military systems, major nuclear installations classified as secret or the transport of associated fuel elements;
- military territorial authorities which co-ordinate actions taken by, on the one hand, the directors of armies, bases, or military nuclear systems, or by directors of establishments and operators of major nuclear installations, of individual installations or of transport operations of fuel elements and on the other, the competent State bodies in the fields of accident or incident prevention and the radiological monitoring of the environment.

Each of these authorities is responsible for organising an internal control, the head of which (the “inspector of nuclear security” measures) reports directly to them.

Regime of Nuclear Installations

Order on the Setting Up of an Emergency Alert Procedure Around a Major Nuclear Installation which has an Off-site Emergency Response Plan (2001)

This Order of 30 November 2001 sets out the obligations of the nuclear operator in relation to the emergency response procedure established by a Decree of 1988 on emergency planning. It provides that:

- the operator is required to ensure the setting up and maintenance of means to communicate this alert to the neighbouring population;
- it should be possible for the operator to activate these measures from the nuclear installation under the conditions set by the prefect in the off-site emergency response plan (*plan particulier d'intervention – PPI*);
- the zone covered by the emergency alert procedure is to be established, on the basis of the risk study, by the prefect in the off-site emergency response plan upon advice of the administrative authority responsible for control of nuclear safety according to the terms of the risk study;

- the location of the alert mechanisms, the functional details of which are proposed by the operator and approved by the prefect in the off-site emergency response plan, must take into account local conditions such as the topography, population density and compass card.

The implementation of the emergency alert procedure for neighbouring populations concerning operational nuclear installations should be completed by 14 December 2002.

Regulation of Nuclear Trade (including Non-Proliferation)

Decree on Export, Import and Transfer Controls over Dual-Use Goods and Technologies and Implementing Orders (2001)

This Decree No. 2001-1192 of 13 December 2001 repeals Decree No. 95-613 of 5 May 1995 on Export Controls over Dual-Use Goods and the Order of 12 March 1996 on the Issue of an International Import Certificate and a Verification Certificate for the Import of Dual-Use Goods. It also re-defines the regime applicable to dual-use goods and technology in accordance with Council Regulation No. 1334/2000 of 22 June 2000 setting up a Community regime for the control of exports of dual-use items and technology in terms of customs procedures.

Pursuant to this Decree, importers of dual-use goods mentioned in Annex I of the Council Regulation, originating in a non-European Community country, may from now on request issue of an international import certificate, in order to allow their foreign supplier to obtain permission from his national authorities to export the product. This certificate is issued by the Minister responsible for Customs according to criteria established by an order.

Two Implementing Orders were adopted on 13 December 2001 in order to establish first those formalities which must be carried out by persons exporting dual-use goods to third countries or transferring them to the Member States of the European Community (Order on Export Control to Third Countries and on Transfer to Member States of the European Community of Dual-Use Goods and Technologies), and secondly, the formalities necessary to obtain and to use the international import certificate and the delivery verification certificate (Order on the Issue of an International Import Certificate and a Delivery Verification Certificate for the Importation of Dual-Use Goods and Technologies).

Food Irradiation

Decree on Treatment by Ionising Radiation of Foodstuffs Destined for Human or Animal Consumption (2001)

This Decree No. 2001-1097 of 16 November 2001 implements into French law Directives 1999/2/EC and 1999/3/EC of the European Parliament and of the Council, adopted on 22 February 1999, on the approximation of the laws of the Member States concerning foods and food ingredients treated with ionising radiation (see *Nuclear Law Bulletin* No. 67). It repeals the Decree of 1970 on the Prevention of Fraudulent Practices relating to Trade in Irradiated Goods which may be Used as Human or Animal Foods (see *Nuclear Law Bulletin* No. 6).

Pursuant to the Decree, it is forbidden to import, possess, offer for sale, sell or distribute for free foodstuffs, products and drinks which may be destined for human or animal consumption and which have been treated by ionisation, except subject to the conditions set out in this Decree including in particular the following:

- the foodstuffs must be exclusively treated by gamma rays emitted by the radionuclides cobalt 60 or cesium 137, by x-rays produced by apparatus emitting nominal energy less than or equal to 5 MeV or electrons produced by apparatus emitting nominal energy less than or equal to 10 MeV;
- foodstuffs subjected to treatment by ionising radiation must figure on the list which is to be established by order, and must be below the maximum irradiation doses authorised and, where applicable, must conform to the particular hygiene conditions applicable before and after treatment;
- the labelling of irradiated foodstuffs must include the words “treated by ionising radiation” or “treated by ionisation”.

Germany

General Legislation

Act on the Phase-out of Nuclear Power (2002)

The Act of 22 April 2002 (published in *Bundesgesetzblatt* 2002 I, p. 1351) on the structured phase-out of nuclear power for the commercial production of electricity entered into force on 27 April 2002. The Act implements the Agreement of 11 June 2001 between the German Federal Government and the leading national electricity-generating companies on the phase-out of nuclear energy (see *Nuclear Law Bulletin* Nos. 66 and 68).

The purpose of the Act is in a general way reflected in the amendment of Section 1(1) of Act No. 1959/1985 on the Peaceful Utilisation of Atomic Energy and the Protection against its Hazards (Atomic Energy Act) of 23 December 1959, as last amended on 13 December 2001 (*Bundesgesetzblatt* 2001 I, p. 3586; see also *Nuclear Law Bulletin* Nos. 37, 44, 54, 59, 61 and 67; the text of this Act is reproduced in the Supplement to *Bulletin* No. 36). Whereas the original version of this provision provided that the promotion of the peaceful use of nuclear energy was one of the purposes of this Act, the amended version reads as follows:

“The purpose of this Act is

1. to phase out the use of nuclear energy for the commercial generation of electricity in a structured manner, and to ensure on-going operation up until the date of discontinuation, ...”

The Act amends the following legislative instruments:

- the Atomic Energy Act;

- the Financial Security Ordinance 1977, as last amended on 9 September 2001 (*Bundesgesetzblatt* 2002 I, p. 615; see also *Nuclear Law Bulletin* Nos. 16, 18 and 19; the text of this Ordinance is reproduced in the Supplement to *Bulletin* No. 18);
- the Ordinance on Nuclear Costs 1981, as last amended on 9 September 2001 (*Bundesgesetzblatt* 2001 I, p. 2331; see also *Nuclear Law Bulletin* Nos. 29 and 51).

Details of the Act on the Phase-Out of Nuclear Power are set out in a study by Dr. Axel Vorwerk published in the Chapter “Studies” of this *Bulletin*.

Hungary

Radiation Protection

Decree Laying Down Basic Standards on Radiation Protection (2000)

Decree No. 16/2000 was adopted by the Minister of Public Health to implement the 1996 Atomic Energy Act (see *Nuclear Law Bulletin* No. 59; the text of this Act is reproduced in the Supplement to *Bulletin* No. 60). It establishes the legal framework governing radiation protection based upon the 1990 Recommendation of the International Commission on Radiological Protection (Publication No. 60) (see *Nuclear Law Bulletin* No. 47) and the Basic Safety Standards of the International Atomic Energy Agency (Safety Series No. 115).

Pursuant to this Decree, a radiation protection service must be established at all installations using nuclear energy. Operators of such installations are also required to prepare internal radiation protection standards to be approved by the State Public Health and Medical Officer’s Service. The Decree furthermore sets dose limits: the maximum effective dose limits for workers and members of the public are set at 100 millisievert (mSv) over five consecutive years subject to a maximum effective dose of 50 mSv in any single year, and at 1 mSv per year respectively.

The Decree also identifies the radiation safety principles which apply in the workplace and sets out provisions on radiation protection training, dosimetric control, the treatment of persons suffering from a radiation injury, the tasks of the radiation protection service, accident handling, and the special radiation protection requirements for nuclear power plants.

Ireland

Organisation and Structure

Establishment of an Office of Emergency Planning (2001)

Following a review of the structures under which emergency planning is conducted, particularly in light of the new threats posed by global terrorism, the Irish Government established an Office of Emergency Planning within the Department of Defence. The task of this Office is to take the lead role

in emergency planning to meet the new threat from international terrorism and from any escalation in international tensions, including co-ordination of the responses by various agencies involved. It is also responsible for overseeing peacetime planning in order to ensure the best possible use of resources and compatibility between the different planning requirements. The existing responsibilities of government departments and agencies in respect of specific emergency planning arrangements remain in place.

Radiation Protection

European Communities (Drinking Water) Regulations (2000)

These Regulations were adopted as Statutory Instrument No. 439 of 2000 on 18 December 2000 and will come into operation on 1 January 2004. The Regulations give effect to provisions of EU Council Directive 98/83/EC on the quality of water intended for human consumption. They prescribe quality standards to be applied in relation to certain supplies of drinking water. This instrument stipulates that the radiation dose arising from one year's consumption of drinking water should not exceed 0.1 mSv. It further stipulates that the dose calculation should include contributions from all natural and artificial radionuclides with the exception of tritium, potassium-40, radon and radon decay products.

Italy

Radiation Protection

Community Law introducing Amendments to Legislative Decrees Nos. 230/95 and 187/2000 (2002)

Article 39 of Community Law No. 39 of 1 March 2002 amends Legislative Decree No. 230/95 (which implemented all the Euratom Directives adopted until then, with the exception of those relating to the use of ionising radiation in medicine; see *Nuclear Law Bulletin* No. 56 and, for the text of this Decree, see the Supplement to *Bulletin* No. 58) and Legislative Decree No. 187/2000 (which specifically implemented Directive 97/43 of 30 June 1997 on health protection of individuals against the dangers of ionising radiation in relation to medical exposure; see *Nuclear Law Bulletin* No. 66). Community Laws are passed yearly to allow for national legislation to be brought into line with Community legislation (see *Nuclear Law Bulletin* Nos. 46, 49, 53 and 63).

The amendments to Legislative Decree No. 230/95 are related to Article 108 on scientific clinical research, and stipulate that the exposure of persons for this purpose is subject to a binding opinion of the Ethics Committee established in 1998. The amendments to Legislative Decree No. 187/2000 mainly concern its Annex III and result from the amendments made to Decree No. 230/95. They require the Ethics Committee to take into account the principles laid down in ICRP 62 (Recommendations of the International Commission on Radiological Protection) and the indications in the guide adopted by the European Commission on medical exposure and biomedical research (Radiation Protection 99).

Japan

Organisation and Structure

Governmental Decision to merge the Japan Atomic Energy Research Institute and the Japan Nuclear Cycle Development Institute (2001)

In the context of a wide-ranging reform of government-funded organisations launched at the initiative of the Prime Minister, on 19 December 2001 the Japanese Government decided to establish a new entity merging the Japan Atomic Energy Research Institute (JAERI) and the Japan Nuclear Cycle Development Institute (JNC) by 2005. These organisations will be replaced by a new independent body, which will be responsible for research and development relating to all aspects of nuclear energy.

Details of this merger are currently under discussion in the Task Force set up within the Ministry of Education, Culture, Sports, Science and Technology (MEXT). The Law establishing this new entity is to be approved in 2004.

Latvia

General Legislation

Regulations Implementing the Act on Radiation Safety and Nuclear Safety (2001-2002)

In order to implement the 2000 Act on Radiation Safety and Nuclear Safety (see *Nuclear Law Bulletin* No. 67; the text of this Act is reproduced in the Supplement to *Bulletin* No. 67), the Cabinet of Ministers has issued a series of Regulations:

- Regulations No. 132 on the Statute of the Radiation Safety Board of 20 March 2001;
- Regulations on the Statute of the Radiation Safety Centre of 22 May 2001;
- Regulations No. 288 on Activities involving Ionising Radiation Sources which do not require a Special Permit (Licence) or Permit of 3 July 2001;
- Regulations No. 289 on the State Duty in relation to the Issue of a Special Permit (Licence) or Permit for Activities Involving Ionising Radiation Sources of 3 July 2001;
- Regulations No. 290 on the Criteria to be Fulfilled for a Special Permit (Licence) or Permit for Activities involving Ionising Radiation Sources of 3 July 2001;
- Regulations No. 294 on Minimum Insurance of the Civil Liability of the Operator where Activities involving Ionising Radiation Sources are Carried Out of 3 July 2001 (see below);

- Regulations No. 301 on the Procedure for the Issue of a Special Permit (Licence) or Permit for Activities involving Ionising Radiation Sources and Procedure for Public Consultation on the Establishment of Ionising Radiation Facilities of State Significance or on Essential Modifications thereto of 3 July 2001;
- Regulations on Protection against Ionising Radiation during the Transport of Radioactive Materials of 3 July 2001;
- Regulation No. 402 on the Procedure for Completion and Transmission of Safety Data Sheets on Ionising Radiation Sources of 18 September 2001;
- Regulations No. 406 on the Procedure for Packaging and Marking of Ionising Radiation Sources of 18 September 2001;
- Regulations on the Procedure for Accounting and Control of the Exposure of Workers of 23 October 2001;
- Regulations on Medical Contraindications for Practices Involving Ionising Radiation Sources of 28 December 2001;
- Regulations No. 5 on the Procedure for the Dismantling of Ionising Radiation Equipment which does not Contain Radioactive Substances of 3 January 2002;
- Regulations on Protection against Ionising Radiation in Relation to Medical Exposure of 5 March 2002 (see below).

Furthermore, other Regulations were approved by the Commission of the Cabinet of Ministers but have not yet entered into force:

- Regulations on Protection against Ionising Radiation;
- Regulations on Radiometric Control of Cargo and Goods on the State Border;
- Regulations on Practices Involving Radioactive Waste and Related Materials.

Finally, other Regulations are currently under preparation:

- Regulations on Physical Protection of Ionising Radiation Sources;
- Regulations on the Procedure Governing Activities Involving Nuclear Materials, Related Materials and Equipment;
- Regulations on Generic Principles for Exchange of Radioactive Waste.

Organisation and Structure

Establishment of the Radiation Safety Centre (2001)

The Radiation Safety Centre (RSC) was established on 9 July 2001 as a state authority supervised by the Ministry of Environmental Protection and Regional Development. It is responsible for ensuring the safe use of ionising radiation sources and protecting the public and the environment against their potential harmful effects while encouraging the maximum benefit from use of radiation sources.

The main tasks of RSC include *inter alia*: drafting policy proposals for supervision and control of radiation safety and nuclear safety; licensing practices involving radiation sources; co-ordinating measures against illicit trafficking of radioactive and nuclear materials; encouraging introduction of new technologies to minimise the possible harmful effects of nuclear activities; co-ordinating technical co-operation in the field of radiation safety; preparing national reports; ensuring that RSC staff receive proper education and training for their tasks; maintaining data bases on practices, sources and exposures; and ensuring an operational 24-hour emergency preparedness system.

Radiation Protection

Regulations on Protection against Ionising Radiation in Relation to Medical Exposure (2002)

These Regulations of 5 March 2002 aim to implement Council Directive 97/43/Euratom of 30 June 1997 on health protection of individuals against the dangers of ionising radiation in relation to medical exposure (see *Nuclear Law Bulletin* No. 60). The Regulations are divided into nine chapters dealing respectively with:

- scope and main principles, including the requirement according to which only a radiologist is entitled to decide upon medical exposure and has responsibility for justification of such exposure;
- justification, in particular basic requirements, introduction of reference levels as guidance for justification, special requirements for new types of examinations and equipment, biomedical research;
- responsibilities of the licensee;
- medical radiological procedures covering diagnostics, therapy, and nuclear medicine;
- requirements for education of personnel;
- technical requirements for equipment, including non-compliance indicators, prohibition of certain types of equipment;
- dose control system;
- special precautions in case of pregnancy and breast feeding;

- unplanned events.

Third Party Liability

Regulations on Minimum Insurance of the Civil Liability of the Operator where Activities Involving Ionising Radiation Sources are Carried Out (2001)

These Regulations No. 294 of 3 July 2001, implementing the 2000 Act on Radiation Safety and Nuclear Safety, provide for the requirement for the operator to maintain financial security of:

- 4 million Latvian Lats (LVL)² for nuclear facilities;
- 800 000 LVL for other facilities of state significance, defined in the 2000 Act as “nuclear facilities, radioactive waste disposal or management facilities and other facilities in which practices involving radioactive substances are conducted, where the total radioactivity of those substances exceeds by 1 billion times the prescribed limit by the Cabinet of Ministers, which require a special permit (licence) or a permit”;
- 400 000 LVL for high dose rate sources, i.e. sources whose radioactivity is from 1 million to 1 billion times above exemption level or where the dose rate at a distance of one metre from an unshielded source exceeds 10 Sv/h;
- 80 000 LVL for medium dose rate sources, whose radioactivity is from a thousand to a million times above exemption level or where the dose rate is from 0.1 to 10 Sv/h;
- 1 000 LVL for low dose rate sources.

Lithuania

General Legislation

Law amending Articles 16 and 32 of the Law on Nuclear Energy (2001)

This Law amending the 1996 Law on Nuclear Energy (see *Nuclear Law Bulletin* No. 59; the text of this Law is reproduced in the Supplement to *Bulletin* No. 60) was adopted on 8 November 2001 by the Seimas (Parliament) of the Republic of Lithuania. The amendments are related to the supervision of the construction of nuclear facilities. Previously, permits for the construction of nuclear facilities were issued by the administration of the District Governor. These amendments provide that the Government will decide which state institution shall deliver such permits. It is foreseen that the competent authority of the Ministry of Environment will now take over this responsibility. Furthermore, the scope of the Law has been extended so that it now governs not only construction but also modification of nuclear facilities.

2. 1 Special Drawing Right = 0.8 LVL.

Law amending Articles 1, 2, 48-51 and the Title of Chapter 9 of the Law on Nuclear Energy (2001)

This Law amending the 1996 Law on Nuclear Energy was adopted on 13 November 2001 by the Seimas (Parliament) of the Republic of Lithuania. The amendments are related to the improvement of physical protection of nuclear facilities and nuclear materials.

In 1999, the International Physical Protection Advisory Service (IPPAS) of the International Atomic Energy Agency (IAEA) comprehensively assessed Lithuania's physical protection system and submitted a report containing recommendations and proposals to improve the physical protection of nuclear facilities and materials. The main recommendations involved clarification of the functions of state institutions in this area and establishment of regulations governing the physical protection of all nuclear materials, rather than simply those which are used in the production of nuclear energy.

On 26 September 2000, the Seimas adopted Resolution No. VIII-1967 approving the Programme for the Improvement of Safety of Ignalina NPP Exploitation. This programme included measures to strengthen physical protection at Ignalina and to implement the IPPAS recommendations and proposals. It was therefore necessary to amend the Law on Nuclear Energy as follows:

- VATESI (Lithuanian State Nuclear Power Safety Inspectorate) is now responsible for adopting regulations governing physical protection and monitoring their implementation;
- the definition of nuclear safety has been improved and now covers physical protection;
- the scope of the Law of Nuclear Energy has been extended to regulate physical protection of all nuclear materials, rather than only those which are used in the production of nuclear energy.

Radiation Protection

Hygiene Standard on General Norms of Radiation Safety (2001)

By Order No. 663 of 21 December 2001, the Minister of Health Protection approved this Standard HN 73:2001, repealing and replacing Standard HN 73:1997. The purpose of the Standard is to implement Council Directives 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 97/43/Euratom on health protection of individuals against the dangers of ionising radiation in relation to medical exposure, (see *Nuclear Law Bulletin* No. 60) and the IAEA Safety Series Nos. 115 and 120.

Order on Certification of Persons Responsible for Radiation Safety Training of Workers (2001)

By Order No. 607 of 21 November 2001, the Minister of Health Protection established the rules governing the certification of persons responsible for training workers in relation to radiation safety.

Radioactive Waste Management

Resolution approving the Strategy on Radioactive Waste Management and the Programme of Activities of the Radioactive Waste Management Agency for 2002-2004 (2002)

By Resolution No. 174 of 6 February 2002, the Government of the Republic of Lithuania approved the above-mentioned Strategy which sets out provisions covering the strategic objectives, basic principles, means of implementation and financing of the management of solid radioactive waste, spent nuclear fuel, liquid radioactive waste from Ignalina NPP, radioactive waste generated by small producers and radioactive waste resulting from research at and the decommissioning of Ignalina NPP.

Luxembourg

Regulations on Nuclear Trade (including Non-Proliferation)

Law approving an Additional Protocol on the Strengthening of Non-Proliferation of Nuclear Weapons in order to Detect Clandestine Nuclear Activities (2001)

Luxembourg approved the Additional Protocol on the Strengthening of Non-Proliferation of Nuclear Weapons in order to Detect Clandestine Nuclear Activities in its Law of 1 August 2001. This Additional Protocol to the Safeguards Agreement concluded between the 13 Member states of the European Atomic Community (Euratom) which are not nuclear-weapon states, Euratom and the International Atomic Energy Agency (IAEA), in implementation of Article III(1) and (4) of the Treaty on the Non-Proliferation of Nuclear Weapons, was signed by these Member states on 22 September 1998.

This Protocol aims to strengthen the effectiveness and to improve the efficiency of the IAEA international safeguards system, and aims to detect any clandestine nuclear activity. When it enters into force, certain non-nuclear material and equipment, activities and research involving them, and their import or export, shall be controlled. Controls will be extended to nuclear raw materials to which the safeguards agreement does not apply.

Although Euratom, Party to the Protocol, is only, pursuant to the Euratom Treaty, competent to control nuclear materials, and is not habilitated to control non-nuclear material and equipment, Luxembourg decided pursuant to an agreement with the European Commission to confer responsibility for national obligations resulting from the Additional Protocol in relation to non-nuclear material and equipment to Euratom.

Mexico

Radioactive Waste Management

Official Norm establishing Requirements Governing Installations for the Treatment and Conditioning of Nuclear Waste (2001)

This Norm was adopted on 10 September 2001 and was published in the Official Federal Bulletin on 26 September 2001. It aims to optimise procedures in relation to the handling, transportation and temporary or permanent storage of radioactive waste. Facilities used for these purposes must be sited, designed, operated and decommissioned in order to avoid unacceptable risks for personnel, the public and the environment.

Some of the requirements established by this Norm are as follows:

- all facilities must have the necessary safety mechanisms and radiation monitoring equipment;
- facilities must be designed according to the physical and chemical characteristics of the radioactive waste and materials which will be on the premises;
- all equipment for the treatment and conditioning of radioactive waste must be located in areas which would minimise the release of ionising radiation in the event of an accident;
- measures must be in place to protect personnel from the risks generated from the storage, handling, control and inventory of the substances present; personnel should also receive the appropriate training in order to fulfil their tasks;
- a quality assurance programme must be established to ensure that all facilities are constructed in accordance with the approved design and that any modifications are approved by the National Nuclear Security and Safeguards Commission;
- an emergency plan must be established to guarantee the safety of personnel and the public.

Netherlands

Organisation and Structure

Establishment of new General Inspectorate for Housing, Spatial Planning and the Environment (2002)

The new Inspectorate for Housing, Spatial Planning and the Environment (*VROM-Inspectie*), began operating on 1 January 2002. The new Inspectorate brings together into a single organisation the formerly separate inspectorates dealing with each of the Ministry's three core policy areas. The Minister for Housing, Spatial Planning and the Environment has primary responsibility for the implementation of the 1963 Nuclear Energy Act (see *Nuclear Law Bulletin* Nos. 3 and 64).

The purpose of integrating the original three inspectorates to form a single Ministry Inspectorate is to facilitate more effective enforcement of legislation and regulations in the fields of the environment, land use and housing, and to improve monitoring of compliance with those rules. The Nuclear Safety Department will also form part of the new General Inspectorate.

Poland

General Legislation

Amendments to the Atomic Energy Act (2001)

Following the adoption of the Act on the Organisation of the Central Authorities in the Republic of Poland on 21 December 2001 (Official Journal of 2001, No. 54, Item 1800), Articles 109 and 113 of the 2000 Atomic Energy Act (the text of which is reproduced in the Supplement to *Nuclear Law Bulletin* No. 68; see also *Bulletin* No. 67) related to the President of the National Atomic Energy Agency were amended. These amendments entered into force on 1 January 2002.

Pursuant to the new Organisation Act which provides for a transfer of the supervisory authority over the National Atomic Energy Agency from the Prime Minister to the Minister of the Environment, Article 109(2) of the Atomic Energy Act is to read as follows: “The Agency’s President shall be nominated by the Prime Minister upon proposal of the Minister competent in environmental matters. The Agency’s President shall be recalled by the Prime Minister”.

In addition, another minor amendment was made to the Act as a result of the adoption of the Environmental Protection Law on 27 July 2001 (Official Journal of 2001, No. 100, Item 1085). The phrase “and human health” is now deleted from Article 33(2)(4) of the Atomic Energy Act.

Organisation and Structure

Regulations approving the Statute of the National Atomic Energy Agency and establishing a Council for Atomic Affairs (2001)

On 7 and 17 December 2001 respectively, the Council of Ministers issued a Regulation approving the Statute of the National Atomic Energy Agency and a Regulation establishing a Council for Atomic Affairs in order to implement the 2000 Atomic Energy Act.

The first Regulation provides details on the internal organisation of the National Atomic Energy Agency, and the main tasks, powers and procedures of the different services within the Agency.

The second Regulation establishes a Council for Atomic Affairs as a consultative and advisory body to the President of the National Atomic Energy Agency. The Council is mainly responsible for providing specialised knowledge and opinions related to the main fields of nuclear energy, including radiological protection and nuclear safety. The Council’s chairman is nominated by the Prime Minister, the other members being appointed by the Agency’s President.

Regime of Radioactive Materials

Regulations on the Physical Protection and on the Accountancy of Nuclear Materials (2001)

Both of these Regulations were adopted on 31 July 2001 to implement the Atomic Energy Act.

The Regulation on the Physical Protection of Nuclear Materials sets out the various categories of nuclear materials and establishes adequate protection levels for each of them. It further determines the organisational methods and technologies which should be used in the field of physical protection, as well as the appropriate procedures for the periodic controls carried out by the President of the National Atomic Energy Agency.

The Regulation on the Accountancy of Nuclear Materials defines nuclear materials subject to accountancy requirements, specifies methods and means of maintaining balance, establishes control procedures, and presents detailed models of the documents to be submitted.

Romania

Radiation Protection

Norms on Medical Surveillance of Workers Occupationally Exposed to Ionising Radiation and on Radiation Safety (2001)

During 2001, a number of Orders were adopted in order to implement European legislation in the field of radiation protection. The implementation of 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) was completed through the adoption by the Minister of Health and the Family of Order No. 944 of 28 December 2001 approving the Norms on Medical Surveillance of Workers Occupationally Exposed to Ionising Radiation and the adoption by the President of the National Commission for the Control of Nuclear Activities (CNCAN) of Order No. 366 on 22 September 2001 approving the Norms on Radiological Safety.

Transport of Radioactive Materials

Norms on the Transport of Radioactive Materials (2001)

Order Nos. 373 and 374 adopted on 3 October 2001 by the CNCAN President approve the Norms on Safe Transport of Radioactive Materials and the Norms on International Shipments of Radioactive Materials over Romanian Territory, both of which are designed to implement Council Regulation (Euratom) No. 1493/93 of 8 June 1993 on shipments of radioactive substances between Member States (see *Nuclear Law Bulletin* No. 52).

Third Party Liability

Law on Civil Liability for Nuclear Damage (2001)

This Law was adopted on 3 December 2001 and was published in the Official Bulletin of 19 December 2001. It aims to regulate civil liability for the compensation of damage resulting from activities involving the utilisation of nuclear energy for peaceful purposes. Romania is a Party to the 1963 Vienna Convention on Civil Liability for Nuclear Damage and to the 1997 Protocol to Amend this Convention. This Law establishes the fundamental principles underlying the international nuclear liability regime – strict and exclusive liability of the nuclear operator for damage occurring in his nuclear installation or involving nuclear material being sent to or from that facility, limitation of liability in amount and time and compulsory financial security.

The minimum amount of liability of the nuclear operator is the equivalent in Romanian currency of 300 million Special Drawing Rights (SDR). Such liability can be reduced to SDR 150 million where the difference is provided by the State from public funds. There is also a phasing-in provision providing for the possibility of limiting the operator's liability to SDR 75 million for a ten-year period. The liability for low-risk installations and transport activities can be reduced to SDR 30 million (in certain cases, SDR 20 million) and SDR 5 million respectively (however, there must be at least SDR 25 million cover for the transport of nuclear fuel). Rights to claim compensation are extinguished where an action is not brought within 30 years in respect of loss of life or personal injury, or 10 years for other nuclear damage. In all cases, an action must be brought within three years of the date upon which the person suffering damage had knowledge of the damage and the liable operator.

This Law shall enter into force on 19 December 2002. The text of the Law is reproduced in the Supplement to this *Bulletin*.

Slovenia

Third Party Liability

Decree on Establishment of the Amount of Operator's Limited Liability and the Corresponding Amount of Insurance for Nuclear Damage (2001)

This Governmental Decree No. 443-02/2001-1, which repeals and replaces a 1998 Decree on the same subject (see *Nuclear Law Bulletin* No. 63), was adopted on 19 December 2001 (Official Gazette No. 110 of 29 December 2001) and entered into force on 1 January 2002. This Decree aims to harmonise the domestic legislation with the Paris Convention on Third Party Liability in the Field of Nuclear Energy, which was ratified by Slovenia on 16 October 2001 (see *Nuclear Law Bulletin* No. 68).

Pursuant to this Decree, the operator of a nuclear installation is liable for nuclear damage up to the equivalent in Slovenian Tolars of 150 million Special Drawing Rights (SDR) and must subscribe insurance to cover his liability up to this amount. However, insurance for a nuclear research reactor whose thermal power is less than 10 kW is set at the equivalent in Tolars of SDR 5 million and insurance for transport of nuclear materials is set at the equivalent in Tolars of SDR 20 million.

Furthermore, should nuclear damage exceed the amount insured by the operator, the Republic of Slovenia will cover the difference up to the equivalent in Tolars of 150 million SDRs.

Spain

Organisation and Structure

Reorganisation of the Nuclear Safety Council (2000)

Following the strengthening of the Nuclear Safety Council's functions in the field of radiation protection of the public and the environment (see *Nuclear Law Bulletin* No. 66), it was deemed necessary to introduce changes into the organisational structure of the Council in order to reflect the separation between nuclear safety and radiation protection issues. Accordingly, under Royal Decree No. 469/2000 of 7 April 2000 amending Article 41 of the Council's Statute (see *Nuclear Law Bulletin* Nos. 30, 44 and 57), the former Technical Directorate of the Council has been disbanded and two new Technical Directorates responsible for Nuclear Safety and Radiation Protection respectively have been created.

The former structure of the sub-directorates has also been modified: three Sub-Directorates responsible for Nuclear Installations, Engineering and Nuclear Technology respectively now report to the Technical Directorate for Nuclear Safety. The Technical Directorate for Radiation Protection is also composed of three Sub-Directorates responsible respectively for Radiation Protection of the Environment, Occupational Radiation Protection and Emergencies.

Tanzania

Radioactive Waste Management

Radioactive Waste Management for the Protection of Human Health and Environment Regulations (1999)

These Regulations were adopted on 1 September 1999 (Government Notice No. 276 published on 17 September 1999) pursuant to Section 40 of the Protection from Radiation Act No. 5 of 1983 (see *Nuclear Law Bulletin* No. 37). They set out the basic technical and organisational requirements to be met by waste generators and operators of waste management facilities in order to ensure the protection of human health and the environment from the hazards associated with radioactive waste.

The Regulations apply to all types of waste – solid, liquid and gaseous – whose activity leads to the intake of a dose higher than 10 microsieverts, all users of ionising radiation sources whose activity is subject to licensing, and operators of radioactive waste management facilities.

Under the Regulations, the radioactive waste generator is primarily responsible for ensuring its safe management. Accordingly, he is required in particular to segregate, collect and classify waste and, for safety purposes, ensure that any releases of radioactive waste are within the specified limits, minimise the volume of radioactive waste produced, and appoint a Radioactive Materials Co-ordinator

or Radioactive Waste Co-ordinator. The Co-ordinator shall be responsible *inter alia* for establishing and keeping up-to-date an inventory of radioactive materials and waste; setting up and maintaining a record keeping system in order to facilitate identification, classification, collection and storage of radioactive materials; ensuring appropriate labelling and physical security of waste packages; and reporting any accident to the facility management.

However, where the waste generator is incapable of managing the radioactive waste appropriately or where such an entity no longer exists, the Regulatory Body, i.e. the National Radiation Commission, shall take responsibility for managing the radioactive waste.

Radioactive waste generation and management is subject to licensing. The power to issue, suspend or revoke such licences lies with the National Radiation Commission.

The Regulations also provide for the establishment of a Central Radioactive Waste Management Facility as a centre for collection and transportation of all radioactive waste from the waste generators' establishments and for treatment, conditioning and storage of radioactive waste requiring more than a one-year decay period to bring down the activity level to below clearance levels. This Facility is operated by the Commission.

Ukraine

Third Party Liability

Law on Civil Liability for Nuclear Damage and its Financial Security (2001)

This Law was adopted on 13 December 2001 and entered into force on 16 January 2002. It establishes rules and procedures governing liability for and indemnification of damage caused by a nuclear incident, including measures to ensure financial cover of such liability. This Law incorporates the principles established in the 1963 Vienna Convention on Civil Liability for Nuclear Damage, to which Ukraine acceded on 20 September 1996 (see *Nuclear Law Bulletin* No. 61), into domestic legislation. It provides for the strict and exclusive liability of the nuclear operator, limited to the equivalent of 150 million Special Drawing Rights per nuclear incident. It further provides that liability for loss of life is limited to the equivalent of 2 000 times the official untaxed minimum income³ and liability for personal injury or damage to property is limited to 5 000 times that sum.

Pursuant to this Law, the operator is required to secure a financial guarantee to cover his liability, through insurance or other authorised types of financial security. The Cabinet of Ministers of Ukraine may grant the operator a state guarantee for this purpose. Insurers who provide such civil liability insurance must be licensed to provide this type of insurance and also be members of a nuclear insurance pool. Insurers may enter into re-insurance contracts with foreign insurers as long as the foreign insurers are members of the relevant foreign nuclear insurance pool. The Law further provides that if the operator is bankrupt, the state will grant funds to compensate nuclear damage.

The Cabinet of Ministers is required, within six months of the entry into force of this Law, to draw up and approve specific licensing terms for activities with civil liability insurance for nuclear

3. This is estimated at 17 Hryvias (UAH), i.e. approx. 3 US Dollars (USD), in April 2002.

damage, a Statute on a national nuclear insurance pool, a standard form of agreement for mandatory civil liability insurance for nuclear damage and a procedure for calculating premiums for such insurance.

The text of this Law is reproduced in the Supplement to this *Bulletin*.

United Kingdom

General Legislation

Anti-Terrorism, Crime and Security Act (2001)

This Act, a response to the events of 11 September 2001, received Royal Assent on 14 December 2001, and the majority of its provisions came into force on the same date. Part 8 of the Act made some changes to the law relating to the security of the nuclear industry. The most important changes are as follows:

- an expansion of the jurisdiction of the United Kingdom Atomic Energy Authority's constabulary (see *Nuclear Law Bulletin* No. 18), most importantly to enable it to exercise its powers on all licensed nuclear sites (Section 76);
- the creation of a new power to make regulations for the purposes of ensuring the security of nuclear sites and nuclear material, which will form the basis of a comprehensive nuclear security regime. No such regulations have yet been made;
- the creation of a new criminal offence of disclosing information, the disclosure of which might prejudice the security of nuclear sites or nuclear material (Section 79); and
- the creation of a new power to make regulations prohibiting the disclosure of information about the enrichment of uranium. Again, no such regulations have yet been made (Section 80).

Radiation Protection

Radiation (Emergency Preparedness and Public Information) Regulations (2001)

These Regulations came into force on 20 September 2001 and implement Title IX, Section 1 (intervention in cases of radiological emergency) of Council Directive 96/29/Euratom of 13 May 1996 laying down basic 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 Regulations apply to work which involves having on premises, or transporting, radioactive substances in quantities exceeding specified thresholds. They impose obligations on operators and carriers to make an assessment as to hazard identification and risk evaluation and to take all reasonably practical steps to prevent a radiation accident, and to limit the consequences of such an accident. Operators, carriers and local authorities are also required to prepare, review, revise and test emergency plans at regular intervals, and to provide information to the public in specified circumstances.

United States

Radioactive Waste Management

Disposal of High-level Radioactive Wastes in a Proposed Geologic Repository at Yucca Mountain (2001)

On 2 November 2001, the Nuclear Regulatory Commission (NRC) published its new licensing criteria entitled “Disposal of High-Level Radioactive Wastes in a Proposed Geologic Repository at Yucca Mountain, NV”.⁴ Consistent with requirements of Section 801(2) of the Energy Policy Act of 1992 (see *Nuclear Law Bulletin* No. 51), the NRC modified its technical requirements and criteria to conform with the Public Health and Environmental Radiation Protection Standards for Yucca Mountain adopted by the Environmental Protection Agency (EPA) (see *Nuclear Law Bulletin* No. 68) and most notably imposed the 15 mrem per year dose limit. The regulations also include criteria for long-term repository performance, licensing procedures, records and reporting, monitoring and testing programmes, performance confirmation, quality assurance, personnel training and certification and emergency planning. To import the EPA Standards as “transparently” as possible, the NRC added EPA Subpart A for storage and Subpart B for disposal to its new licensing criteria at 10 C.F.R. Part 63 as Subparts K (“Preclosure Public Health and Environmental Standards”) and L (“Postclosure Public Health and Environmental Standards”) respectively. Subpart L includes Postclosure Individual Protection, Human Intrusion and Ground-Water Protection Standards that reflect those set by the EPA.

Thus, the Department of Energy must ensure that no member of the public in the general environment (i.e. outside the Yucca Mountain site, Nellis Air Force Range and Nevada Test Site) receives more than an annual dose of 15 mrem from a combination of factors during the preclosure period (management and storage).⁵ During the post-closure period (disposal), the Department must demonstrate a reasonable expectation that the RMEI⁶ receives no more than an annual dose of 15 mrem as a result of human intrusion for 10 000 years after disposal – from all potential environmental pathways.⁷ The NRC also adopts the EPA’s separate 4 mrem per year standard for groundwater.⁸

The key aspects of the criteria are the following:

- Postclosure Individual Protection Standard (63.311) with adoption of a 15 mrem per year dose limit for the RMEI for 10 000 years after disposal from releases from the Yucca Mountain disposal system. The Department must demonstrate a reasonable expectation with analysis including all potential pathways of radionuclide transport and exposure.

4. 10 C.F.R. Part 63.

5. 10 C.F.R. Subpart K 63.204.

6. “reasonably maximally exposed individual”.

7. 10 C.F.R. Subpart L 63.321.

8. 10 C.F.R. Subpart L 63.331. The average individual exposure from natural background radiation in the United States is approximately 300 mrem per year total effective dose equivalent.

- Radiation Standards for Human Intrusion (63.321-322) with adoption of the 15 mrem per year dose limit for the RMEI as a result of human intrusion. The Department must demonstrate a reasonable expectation that if complete waste package penetration is projected to occur within 10 000 years after disposal, that the RMEI will receive no more than 15 mrem per year.
- Ground-Water Protection Standards (63.331-332) with adoption of separate standards for protection of ground-water whereby the Department must demonstrate a reasonable expectation that for 10 000 years after disposal, releases of radionuclides from the Yucca Mountain disposal system will not cause radioactivity in the representative volume of ground water in the accessible environment to exceed 4 mrem per year to the whole body or any organ based on drinking two litres per day from the representative volume.

Yucca Mountain Site Suitability Guidelines (2001)

In 1984, the General Guidelines for the Recommendation of Sites for the Nuclear Waste Repositories were promulgated by the Department of Energy (DOE) for use in considering and recommending sites for characterisation under Section 112(a) of the Nuclear Waste Policy Act (see *Nuclear Law Bulletin* Nos. 26, 28, 30, 31 and 41).⁹ In order to clarify and focus those Guidelines by adding a new site specific Subpart E that would apply only to Yucca Mountain and contain preclosure and postclosure system guidelines,¹⁰ the DOE issued on 14 November 2001 its Yucca Mountain Site Suitability Guidelines, codified at 10 C.F.R. Part 963, with criteria based on the Regulations for Licensing a Repository at Yucca Mountain of the Nuclear Regulatory Commission (NRC) (see above).¹¹

Subpart A states the purpose which is to establish criteria to guide the Department's determination regarding suitability of Yucca Mountain and contains definitions consistent with those in the NRC rule. Thus, when using the term "applicable radiation protection standard" at Subpart A of Part 963.2, the Department means the numerical radiation dose or concentration limits contained in the NRC's 10 C.F.R. Part 63 which in turn incorporates the public health and environmental standards promulgated by the EPA in 40 C.F.R. Part 197.¹² The numeric radiation dose limits applicable in the preclosure period refer to the numerical dose limits in 10 C.F.R. Part 63.111(a) and (b) and 63.204. Subpart K of Part 63 contains the preclosure public health and environmental standards adopted from 40 C.F.R. Part 197. The preclosure standard will *inter alia* require that the Department demonstrate at licensing a reasonable assurance that no member of the public in the general environment (i.e., outside the Yucca Mountain site, Nellis Air Force Range and Nevada Test Site) will receive more than an annual dose of 15 mrem from the management and storage of radioactive material both inside and outside the Yucca Mountain repository (Part 63.204). The Department will also be required to demonstrate a reasonable assurance that during normal operations any radiation exposures and releases

9. 10 C.F.R. Part 960 (49 Fed. Reg. 47714) (6 December 1984).

10. 61 Fed. Reg. 66158 (1996).

11. The "Yucca Mountain Site Suitability Guidelines", published in the Federal Register at 66 Fed. Reg. 57298, summarize the history of the programme and describe the structure and interplay of the EPA, NRC and Department rules for Yucca Mountain. The rule, as well as updated information on all aspects of the programme, are available at Office of Civilian Radioactive Waste Management's web site at: www.rw.doe.gov

12. 66 Fed. Reg. 57324 (2001).

of radioactive materials to a member of the public – outside the Yucca Mountain site – are within numerical radiation dose limits contained at Part 63.204 and a related NRC regulation at Part 20 specifying radiation protection standards for workers and the public involving licensees. In the postclosure period, radiation limits refer to the numerical dose limits in Parts 63.311 and 63.321, and numeric radionuclide concentration limits in Part 63.331. The postclosure public health and environment standards are contained in L of 10 C.F.R.¹³

Subpart B describes various facets of the Department's suitability determination for Yucca Mountain during both the preclosure and postclosure periods. Within each period there are three subsections addressing the: 1) site suitability determination; 2) evaluation method; and 3) criteria for evaluation. The preclosure and postclosure periods are addressed separately because of different issues relevant to suitability during these two periods. This is also consistent with the original and revised NRC Regulations which also have separate performance objectives for the preclosure and postclosure periods. Preclosure criteria (Parts 963.12 through 963.14) will guide the Department's suitability considerations on operation of the repository before it is closed, as waste is received, stored and emplaced. Postclosure criteria (Parts 963.15 through 963.17) will guide evaluation of the long-term repository behaviour.¹⁴

13. 66 Fed. Reg. 57324 (2001).

14. 66 Fed. Reg. 57326-57327 (2001).