

# NATIONAL LEGISLATIVE AND REGULATORY ACTIVITIES

## **Armenia**

### ***General Legislation***

#### *Law for the Safe Utilisation of Atomic Energy for Peaceful Purposes (1999)*

This Law was adopted on 1 February 1999 and entered into force on 1 March 1999 (see *Nuclear Law Bulletin* No. 63). The text of this legislation is reproduced in the Supplement to this *Bulletin*.

### ***Organisation and Structure***

#### *Decree on State Regulation of Nuclear and Radiation Safety in relation to the Use of Atomic Energy (2000)*

The above Decree (No. 70) was adopted by the Armenian Government on 19 February 2000 and entered into force at the same date.

It confirms that the Armenian Nuclear Regulatory (ANRA) is the competent authority for state regulation of nuclear and radiation safety in relation to the use of atomic energy, under the terms of Articles 7 and 8 of the 1994 Convention on Nuclear Safety.

### ***Radiation Protection***

#### *Law on Public Protection in Emergency Situations (1998)*

This Law was adopted on 2 December 1998 and entered into force on 29 December 1998. This legislation establishes the principles governing measures or activities carried out in emergency situations with a view to ensuring protection of the public. It determines jurisdiction of the state and local authorities, and other organisations, and identifies the rights and responsibilities of citizens in this field. This Law also contains provisions on the actions of the emergency forces, the financing of public protection measures and liability for breaches of this legislation.

## **Belarus**

### ***Radiation Protection***

#### *Decree establishing a Uniform State System of Accounting and Control of Radiation Sources (1999)*

On 4 October 1999, the Council of Ministers adopted Decree No. 1537 establishing a Uniform State System of Accounting and Control of Radiation Sources. This Decree provides that the Committee for Supervision of Industrial and Nuclear Safety (*Promatomnadzor*) is responsible for establishing and implementing this system of accounting and control. It furthermore requires all users of radiation sources to submit technical information on sources in their possession to the Committee. The Decree defines the criteria governing the registration of radiation sources, the volume of information to be submitted and the responsibilities of the Committee in relation to the implementation of this system.

## **Brazil**

### ***Organisation and Structure***

#### *Decree on Bodies within the Federal Public Administration (1999)*

Decree No. 3.280, which was adopted on 8 December 1999 and entered into force upon its publication in the Official Journal of 9 December 1999, repeals Decree No. 3.131 of 9 August 1999 (see *Nuclear Law Bulletin* No. 64). Pursuant to the terms of the Annex to this Decree, the National Nuclear Energy Commission (CNEN) remains attached to the Ministry of Science and Technology, as was stated in Decree No. 3.131, and it continues to carry out its statutory duties.

### ***Regime of Nuclear Installations***

#### *Resolution of the CNEN on Protection against Fire in Nuclear Power Plants (1999)*

Resolution No.13 of the National Nuclear Energy Commission (CNEN), adopted on 16 September 1999, officially approves the Standard CNEN-NN-2.03 on protection against fires in nuclear power plants (Official Journal of 21 September 1999) and replaces the Provisional Standard CNEN-NE-2.03 on the same subject.

This Resolution establishes the applicable criteria and requirements for the protection against fires which may occur during construction or operation of nuclear power plants, and aims to prevent or to limit the consequences of such fires.

*Resolution of the CNEN on Quality Assurance for Nuclear Power Plants (1999)*

Resolution No.15 of the National Nuclear Energy Commission (CNEN), adopted on 16 September 1999 (Official Journal of 21 September 1999) provides for the following:

- repeal of the Provisional Standard CNEN NE-1.16 – Quality assurance for nuclear power plants;
- repeal of the Standard CNEN-NN-1.12 – Classification of independent technical control bodies and the Nuclear Standard CNEN-NN-1.15 – Independent technical control during quality assurance activities in nuclear power plants;
- approval of the amendments to the Standard CNEN-NN-1.27 – Quality assurance in relation to the acquisition, design and manufacture of fuel elements;
- approval of the Standard CNEN-NN-1.16 – Quality assurance in relation to the safety of nuclear power plants and other installations;
- approval of the Standard CNEN-NN-1.28 – Classification and role of independent technical control bodies for nuclear power plants and other installations.

The Standard CNEN-NN-1.16 – Quality assurance in relation to the safety of nuclear power plants and other installations – establishes those requirements which must be carried out in the installation and during the implementation of a system of quality assurance for nuclear installations and power plants and for radioactive installations. Pursuant to Section 1(2), this Standard applies to activities which may affect the safety of nuclear installations during their siting, design, construction, operation or decommissioning. At the construction and operation stage, the requirements set out in this Standard are complementary to those established in Standard CNEN-NE-1.26 – Safe operation of nuclear power plants.

Standard CNEN-NN-1.28 – Classification and role of independent technical control bodies for nuclear power plants and other installations – aims to set out conditions required by the CNEN in respect of the classification of an entity as an independent technical control body in the specific context of nuclear or radioactive activities.

***Regime of Radioactive Materials***

*Resolution of the CNEN on the Control of Nuclear Materials (1999)*

Resolution No.11 of the National Nuclear Energy Commission (CNEN), adopted on 16 September 1999, on the control of nuclear materials (Official Journal of 21 September 1999), which repeals the Provisional Standard CNEN-NE-2.02 – Control of nuclear materials, certain specified equipment and materials (see *Nuclear Law Bulletin* No. 30), approves the Nuclear Standard CNEN-NN-2.02 – Control of nuclear materials.

This Standard sets out the general principles and basic requirements applied by the CNEN in relation to the control of nuclear materials. It applies to all activities involving the use of nuclear materials on the national territory.

## **Canada**

### ***General Legislation***

#### *Nuclear Safety and Control Act (1997)*

The Nuclear Safety and Control Act entered into force on 31 May 2000, upon the adoption of a series of regulations establishing detailed requirements that are to apply to various nuclear activities (see *Nuclear Law Bulletin* No. 60 for a description of this legislation, and the Supplement to *Nuclear Law Bulletin* No. 60 which reproduces the text of the Act). In particular, the Nuclear Safety and Control Act dissolves the Atomic Energy Control Board and replaces it with a new Canadian Nuclear Safety Commission. Further details will be provided on this legislation and its implementing regulations in *Nuclear Law Bulletin* No. 66 (December 2000).

## **People's Republic of China**

### ***Organisation and Structure***

#### *Restructuring of the Public Nuclear Sector in China (1999)*

The China National Nuclear Corporation (hereinafter referred to as “the former CNNC”), responsible for the promotion and development of nuclear energy (see *Nuclear Law Bulletin* No. 61), has been divided into two separate enterprise groups, namely the China Nuclear Industry Group Corporation (which retains however the acronym CNNC) and the China Nuclear Engineering & Construction Corporation (CNEC). The establishment of both Corporations was approved by the State Council on 1 July 1999.

The larger of the two groups, the newly-established CNNC, a state-owned conglomerate which now controls all nuclear matters outside the construction sector and comprises 246 enterprises and institutions.

The CNEC is a state-owned enterprise group under the direct supervision of the State Council which replaces the former CNNC's construction and installation Bureau and consists of 13 separate business units.

The former CNNC's administrative functions have been transferred to the State Commission of Science, Technology and Industry of National Defence. The China Atomic Energy Authority, which is an integral part of this Commission, is responsible for the management of the peaceful uses of nuclear energy and the promotion of international co-operation.

## ***Regulations on Nuclear Trade***

### *Regulations on the Export Control of Nuclear Dual-Use Items and Related Technologies (1998)*

These Regulations were adopted at the Fourth Executive Meeting of the State Council on 1 June 1998 and promulgated by Decree No. 245 of the State Council of the People's Republic of China.

The Regulations aim to strengthen export control over nuclear dual-use items and related technologies, to prevent the proliferation of nuclear weapons, to promote international co-operation in relation to the peaceful utilisation of nuclear energy and to safeguard state security and social and public interests. In order to fulfil these objectives, the state is empowered to establish a licensing regime governing the export of nuclear dual-use items and related technologies which shall incorporate the following principles:

- receiving parties shall not use nuclear dual-use items and related technologies which have been supplied by China for the purpose of carrying out a nuclear explosion;
- receiving parties shall not use nuclear dual-use items and related technologies which have been supplied by China in any nuclear facilities which are not subject to International Atomic Energy Agency safeguards; and
- receiving parties shall not transfer to a third party nuclear dual-use items and related technologies which have been supplied by China without a permit from the Chinese Government.

The Regulations establish a system of state registration and examination for those involved in the export of nuclear dual-use items and related technologies. They further set out those liabilities and penalties which shall be incurred in the event of breach of its provisions.

## **Hong Kong, China**

### ***Third Party Liability***

#### *Adaptation of the Ordinance on Nuclear Materials (1999)*

An Ordinance to bring various laws into conformity with the Basic Law and with the status of Hong Kong as a Special Administrative Region of the People's Republic of China (No. 64 of 1999), hereinafter referred to as the "Adaptation of Laws (No. 27) Ordinance 1999", was enacted by the Legislative Council on 4 November 1999.

Schedule 12 of this Ordinance modifies a number of terms in the Nuclear Material (Liability for Carriage) Ordinance No. 44 of 16 June 1995 as a consequence of the retrocession of Hong Kong to China. This Ordinance is the legislative instrument which applies specifically to third party liability in respect of nuclear damage caused in the Hong Kong Special Administrative Region (HKSAR). It incorporates into HKSAR legislation the pertinent provisions of the Paris Convention to the extent appropriate for the special situation of Hong Kong. The main practical effect of this legislation is that,

in the absence of nuclear installations on that territory, liability for damages arising from a nuclear incident occurring in the course of transport of nuclear substances governed by the Paris Convention would be imposed upon either the sending or receiving operator, depending on the circumstances. Essentially, the changes introduced by Ordinance No. 27 involve the replacement of the term “country or territory” by “country, territory or place” and the term “Governor” by “Chief Executive”.

## **Croatia**

### ***Radiation Protection***

#### *Act on Protection against Ionising Radiation (1999)\**

The Act on Protection against Ionising Radiation was adopted by the Croatian Parliament on 5 March 1999 and entered into force on 28 March 1999. The text of this Act is reproduced in the Supplement to this Bulletin. The new legislation replaced the provisions governing ionising radiation in the Act on Radiation Protection and the Safe Use of Nuclear Energy of 1984. The Act is comprised of 10 Chapters divided into 54 Articles.

Chapter I is devoted to the scope of application and definitions of the terms used in the Act. Its Article 1 establishes the principles governing ionising radiation protection, the course of conduct to be taken in emergency situations, the treatment of radioactive waste and supervision of the implementation of ionising radiation protection measures, with a view to reducing the risk to the life and health of the public as well as to the environment.

Chapter II establishes the three basic principles applicable in this field: justification, optimisation and limitation of exposure to radiation [Articles 5 to 8].

Article 9, under Chapter III of the Act, provides that the safety measures which should be taken in order to ensure radiation protection include, *inter alia*:

- systematic examination and detection of the presence, type and extent of ionising radiation and radioactive sources in the environment;
- establishment of external and internal limits of the exposure of the public to ionising radiation; provision of equipment and devices for radiation protection;
- establishment of conditions governing siting, construction and operation of facilities where ionising radiation sources are used, activities involving such ionising radiation, and implementation of emergency response;
- storage, treatment, management and final disposal of radioactive waste;
- education and advanced training of personnel in the field of radiation protection, and examination and permanent control of the health of radiation workers;

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\* This note has been kindly prepared by Mr. V. Šoljan, Chair of Trade and Economic Law, Faculty of Economics, University of Zagreb.

- record-keeping in relation to accounting for ionising radiation sources and exposure of radiation workers, patients and other members of the public.

The Act sets out an effective dose limit for occupational exposure, which is set at 100 mSv during a five year period, or approximately 20 mSv per year, on condition that radiation exposure does not exceed 50 mSv during any one given year [Article 11]. The dose limit for persons not engaged in activities involving ionising radiation sources is set at 1 mSv annually [Article 14]. The limitation of exposure to the ionising radiation does not apply to radiation exposure of patients for medical purposes [Article 13].

Persons working with ionising radiation sources are required to have special education in the field, either through their regular course of training or by attending a supplementary educational programme organised by the Croatian Agency for Radiation Protection [Article 15]. The Act also lays down requirements with regard to the health conditions of radiation workers [Articles 16 and 17]. Facilities, equipment and installations which contain ionising radiation sources, or which are used for radiation activities, as well as protection devices, must comply with the requirements for the protection of persons and the environment, as established by the Minister of Health [Article 26].

Activities involving radiation sources are subject to the delivery of a licence from the Minister of Health. The Act sets out the applicable requirements to obtain such a licence [Articles 23 to 25]. The licensee must designate a person responsible for ionising radiation protection, and the qualifications required for this person are established in this legislation [Article 26].

Article 31 sets out those “expert activities” which may be performed by legal entities, licensed by the Minister of Health. Such activities include measuring radioactivity in the atmosphere, soil, sea and inland waterways, monitoring the exposure of radiation workers or exposed patients and verifying measurement or protection equipment, providing expert opinion within the licensing regime, and carrying out periodical examinations of ionising radiation sources or activities related to radioactive waste management.

Chapter IV governs emergency situations, and the establishment of a national plan and programme of measures for ionising radiation protection in the event of a radiological emergency.

Chapter V concerns radioactive waste. The Minister of Health is entrusted with the regulation of the treatment and disposal of radioactive waste produced by the activities of licensees [Article 35]. The Act explicitly prohibits any import, treatment, storage or final disposal of radioactive waste originating from outside the Republic of Croatia [Article 36].

Chapter VI establishes the Croatian Agency for Radiation Protection as the competent body to perform expert activities with regard to radiation protection. The Agency reports to the Minister of Health annually on the implementation of radiation protection measures, and is competent to formulate standards and methods of monitoring ionising radiation protection, to support the scientific, statistic and other research activities in the field of radiation protection, to define the basic framework for educational programmes and to provide expert opinion in relation to the licensing of radiation sources [Article 37].

Chapter VII establishes the Commission for Radiation Protection, which consists of nine members nominated by the government, who shall be responsible for providing the government with proposals and opinions concerning radiation protection, both under normal circumstances and in the event of an emergency situation [Articles 40 to 42].

Chapter VIII provides that the Minister of Health is responsible for the administrative surveillance of the implementation of the provisions of this Act and of its implementing legislation. The Health Inspectorate of that Ministry is entrusted with inspections under this legislation. Penalties for breach of this Act's provisions are set out in Chapter IX [Articles 45 to 49]. The final Articles [Chapter X] provide that the Minister of Health shall adopt implementing regulations within a period of six months from the entry into force of this Act. The government shall enact the national plan and programme of measures for ionising radiation protection in the event of a radiological emergency within a period of one year from the entry into force of the Act [Article 50]. The Act is proclaimed as applicable six months after its entry into force [Article 54].

*Ordinance on the Conditions governing the Licensing of Expert Activities on Ionising Radiation Protection (1999)*

Pursuant to Article 31 of the Act on Protection against Ionising Radiation, the Minister of Health enacted the above Ordinance, which entered into force on 29 October 1999. The Ordinance sets out requirements concerning the qualifications of at least two employees of the licence applicant and the working conditions of facilities and equipment used for expert activities. The licence for expert activities is valid for five years from its date of issue. The Croatian Agency for Radiation Protection is responsible for keeping the register of all legal entities licensed to perform ionising radiation protection activities.

## **Estonia**

### ***Radiation Protection***

*Decree establishing a National Dose Register of Radiation Workers and the Procedure for Certifying Radiation Workers and for Issuing Certificates (1999)*

This Government Decree, adopted on 4 February 1999, determines the data necessary for the assessment of radiation doses resulting from occupational exposure. The procedure for certifying radiation workers and for issuing certificates governs the control of knowledge and professional qualifications of radiation workers with regard to the conditions and nature of the radiation activities concerned.

### ***Radioactive Waste Management***

*Decree establishing the Procedure for Management, Registration and Transfer of Radioactive Waste (1998)*

This Decree, adopted by the Minister of the Environment on 8 September 1998, imposes detailed requirements for radioactive waste management, governing, *inter alia*, storage and disposal of radioactive waste and radioactive waste management facilities. The Decree incorporates the requirements of the IAEA RADWASS Safety Standards to the extent appropriate for activities involving radioactive waste. The Decree sets out safety criteria for the siting, design and operation of waste management facilities.

## ***Regulations on Nuclear Trade***

### *Act on Export, Import and Transit of Strategic Goods (1999)*

This Act, adopted on 16 June 1999, states that export, import or transit of strategic goods is subject to a licence. Strategic goods include, *inter alia*, nuclear technology, related materials and facilities, nuclear waste and uranium ores. Licences for carrying out these activities are issued by an Interdepartmental Commission set up for this purpose.

## **France**

### ***Regime of Nuclear Installations***

#### *Amendment to the Tax Regime Applicable to Major Nuclear Installations (1999)*

Section 43 of the Finance Act for 2000 (No. 99-1172), which repeals Section 17 of the Finance Act for 1975 (revised) (No. 75-1242 of 27 December 1975) and Section 121 of the Finance Act for 1985 (No. 84-1208 of 29 December 1984), amends the existing tax regime applicable to major nuclear installations.

The Act provides that major nuclear installations subject to licensing and control pursuant to Section 8 of Act No. 61-842 of 2 August 1961 on measures against atmospheric pollution and odours, are subject to an annual tax as of 1 January 2000.

This tax is due by the operator from the time the construction licence for the installation is granted until the decision to remove that installation from the list of major nuclear installations is made. The amount per installation is calculated by multiplying a fixed amount of tax by a coefficient. The coefficients are established by decree of the Council of State depending on the type and importance of the installations. Within the category of nuclear reactors for the production of energy, the tax is due for each unit of the installation.

A table included in Section 43 of the Finance Act sets out the categories of installation, the amounts of the fixed tax, and the coefficients by which they should be multiplied.

#### *Decree on Major Nuclear Installations Classified as Secret (1999)*

Decree No. 99-873 on major nuclear installations classified as secret, adopted on 11 October 1999 in the Council of Ministers, provides for regulatory supervision of major nuclear installations involved in national defence, classified as secret by the Prime Minister (referred to in French as *installations nucléaires de base secrètes* – INBS)

Adopted pursuant to the Ordinance of 7 January 1959 on the general organisation of defence bodies, and Section 8 of the Act of 2 August 1961 on measures against atmospheric pollution and odours (which remains applicable to major nuclear installations), the Decree affects those installations which are under the aegis of the Ministry of Industry and the Ministry of Defence.

Until now, these installations, although subject in principle to the same technical rules and standards as major civil nuclear installations, were only subject to measures of control in the context of internal administrative procedures, involving the High Commissioner for Atomic Energy (*Haut-commissaire à l'énergie atomique* – HCEA) for installations under the aegis of the Ministry of Industry and, for the others, the services of the Ministry of Defence.

The technical criteria for classification are those of non-secret major nuclear installations [Section 2 of the Decree of 11 December 1963, as amended (see the Supplement to *Nuclear Law Bulletin* No. 12)]. The classification of a major nuclear installation as secret takes place when specific protection against the proliferation of nuclear weapons, malicious action or the disclosure of classified information is justified.

The Decree confirms and strengthens the central role of the HCEA, both in terms of his specific powers and those delegated from the ministers concerned. The HCEA therefore appears as the nuclear safety authority for all INBS.

The INBS are subject to a licensing, control and inspection regime, essentially inspired from the Decree of 11 December 1963 (with the exception of measures of publicity of course). The mechanism is basically implemented by the HCEA and under his authority. It should be pointed out in this respect that the control over releases of effluent and the management of waste are carried out without prejudice to the control exercised by the competent body for radiation protection, *i.e.* the Board for Protection against Ionising Radiation.

The INBS existing prior to the publication of this Decree are subject to its provisions, with the exception of those relating to the construction licence.

*Order setting out General Technical Rules to Prevent and Limit Pollution and External Risks resulting from the Operation of Major Nuclear Installations (1999)*

This Order was adopted on 31 December 1999 in implementation of Section 10 bis of the Decree of 11 December 1963 on nuclear installations, as amended, (see Supplement to *Nuclear Law Bulletin* No. 12). This provision stated that “general technical rules concerning the safety of major nuclear installations shall be issued in the form of an Order by the Minister for Industrial and Scientific Development”. It establishes general technical rules aiming to prevent and limit pollution and risks for the well-being of the neighbourhood, health, safety, public hygiene, agriculture, protection of nature and the environment and conservation of sites and monuments, resulting from the operation of major nuclear installations and major nuclear installations classified as secret.

This Order does not apply to installation classified for environmental protection within the perimeter of major nuclear installations, which are subject to the requirements set out pursuant to Sections 7, 10 and 10-1 of the Act of 19 July 1976 (see *Nuclear Law Bulletin* No. 18).

The principal requirements of this Order concern the following:

- control of noise and vibrations;
- prevention of atmospheric pollution;
- prevention of water pollution;

- management of waste;
- prevention of other risks, in particular fire and nuclear risks.

The Order sets out transitional provisions for existing installations, to which the provisions of this text will apply two years after its publication.

### ***Management of Radioactive Waste***

*Order setting out General Technical Rules on the Limits and Conditions governing Samples and Waste subject to Licensing, carried out by Major Nuclear Installations (1999)*

This Order, adopted on 26 November 1999, completes the regime established by Decree No. 95-540 of 4 May 1995 on releases of liquid and gaseous effluent, and on water samples, from major nuclear installations.

The Order sets out general technical rules which apply to samples and releases subject to authorisation in major nuclear installations. It also applies to samples and to releases from installations classified for environmental protection within their perimeter.

These requirements concern:

- limits and technical requirements applicable to water samples and liquid and gaseous releases;
- the means of analysis, measurement and control of authorised activities, as well as the supervision of their effects on the environment;
- provision of information to the public authorities on the samples and releases carried out, and on their effects on the environment;
- controls carried out by the Board for Protection against Ionising Radiation and State services;
- provision of information to the public.

The individual authorising orders should respect these general requirements as a minimum. They may contain more stringent provisions. These new requirements are applicable to sample and release authorisations and their amendments carried out after 5 January 2000.

The Order of 26 November 1999 provides for the repeal of seven Orders of 10 August 1976 which govern liquid and gaseous radioactive effluent from nuclear installations.

## ***Transport of radioactive substances***

*Order modifying the Order of 11 February 1999 establishing the Technical Conditions for Certain Controls carried out by “Well-known Senders” or by Air Carriers in order to Ensure the Safety of Air Freight (1999)*

This Order of 30 December 1999 provides that correctly authenticated radioactive material are included among those deliveries which are exempted from special verification and safety inspection. The conditions for exemption are established by the Minister of Transport and notified to the undertakings concerned.

## **Germany**

### ***General Legislation***

*Reliability Assessment Ordinance for Licence Applications (1999)*

With a view to implementing the licensing regime prescribed pursuant to Sections 12(1) and 12b of the 1959 Atomic Energy Act, as amended, the Federal Government issued an Ordinance on the Assessment of Reliability Regarding Theft or Significant Release of Radioactive Substances (Reliability Assessment Ordinance) on 1 July 1999 (*Bundesgesetzblatt* 1999 I, p. 1525).

Personal reliability is one of the prerequisites which are to be met by applicants for a licence under the Atomic Energy Act or its implementing ordinances. The assessment of such reliability therefore has always been part of the atomic licensing procedure. With regard to the reliability criteria required to prevent theft or significant release of radioactive substances, Section 12b of the Atomic Energy Act requires that the licensing and control authorities conduct a special reliability assessment (see *Nuclear Law Bulletin* No. 44). This provision expressly authorises the authorities to request and obtain relevant information from the police and from the state security authorities. It defines at the same time the rights of those undergoing such a reliability assessment and restricts the use of information obtained during this procedure. Section 12b(2) of the Act provided that the details of this procedure would be determined by a special ordinance to be issued by the Federal Government. The 1999 Reliability Assessment Ordinance was adopted for this purpose.

Section 1 of the Ordinance defines its scope of application and terms. According to Section 2, there are three categories of reliability assessments: simple, enlarged and comprehensive. The activities which require assessments in accordance with these three categories are listed in Section 3. Sections 2, 4 and 9 contain details of the applicable procedure, *inter alia* the obligation to conduct reliability assessments, necessary means and measures for such assessments, administrative procedures, results of the assessments, periods of validity of the assessment and finally assessments in special cases.

The Ordinance entered into force on 1 August 1999. Sections 5(1)(6) and 7(3)(3) will expire on 29 December 2006.

## ***Organisation and Structure***

### *Re-organisation of Advisory Bodies in the Nuclear Sector (1998)*

By notification of 22 December 1998 (*Bundesanzeiger* 1999 No. 5), the Federal Minister for the Environment, Nature Conservation and Nuclear Safety issued new Statutes for its two main advisory bodies, namely the Reactor Safety Commission (*Reaktor Sicherheitskommission* – RSK) (see *Nuclear Law Bulletin* Nos. 9 and 27) and the Radiation Protection Commission (*Strahlenschutz-kommission* – SSK).

The new Statutes do not change the task of the Commissions, which advise the Federal Ministry in matters of safety of nuclear installations and related issues as well as in the fields of radioactive waste management and protection against the hazards of ionising and non-ionising radiation. They do, however, change the composition of the Commissions. The RSK now has some 12 members who aim to represent the entire spectrum of the current state of science and technology, with a view to ensuring well-balanced expertise. The SSK consists of 14 members who also shall represent the entire spectrum of scientific views.

The new Statutes entered into force on 22 December 1998 and replace the 1990 Statutes of both Commissions.

## ***Radiation Protection***

### *Recommendations on Protection against Catastrophes in the Surroundings of Nuclear Installations (1999)*

The Conference of Ministers for the Interior of the *Bundesländer* (on 11 June 1999) and the *Länderausschuss für Atomkernenergie* (Nuclear Energy Committee of the *Bundesländer*) (on 6 April 1999) issued Framework Recommendations on Protection against Catastrophes in the Surroundings of Nuclear Installations. These Recommendations, which replace the Framework Recommendations of 6 October-1 December 1988 (*Gemeinsames Ministerialblatt* 1989, p. 71), were approved by the Radiation Protection Commission (*Strahlenschutzkommission* – SSK) on 17/18 December 1998, and were published in *Gemeinsames Ministerialblatt* 1999, p. 538.

The Recommendations cover, *inter alia*, co-operation of authorities and the operators of nuclear installations, principles for the establishment of emergency preparedness plans in the surroundings of nuclear installations, suggestions concerning the implementation of measures, special catastrophe measures and additional preparatory measures. Annexes contain definitions of radiation levels and other relevant matters.

## ***Transport of Radioactive Material***

### *Ordinance on Exceptions from the Provisions of the RID (1999)*

The Federal Minister of Transport issued a second Ordinance of 15 December 1999 on exceptions from the provisions of the International Regulations concerning the Carriage of Dangerous

Goods by Rail (RID) – Attachment I to Annex B of the COTIF Agreement (*Bundesgesetzblatt* 1999 II, p. 1085) (see *Nuclear Law Bulletin* No. 63). This Ordinance adapts certain parts of the RID Regulations to Council Directive 96/49/EC of 23 July 1996 on the approximation of the laws of the Member States with regard to the transport of dangerous goods by rail (EC OJ 1996 No. L 235). The Ordinance, and consequently the amended RID Regulations, entered into force on 30 December 1999.

#### *Air Transport Act (1999)*

A new consolidated version of the Air Transport Act 1968 (see *Nuclear Law Bulletin* Nos. 3 and 23), as last amended on 1 March 1999, was published in *Bundesgesetzblatt* 1999 I, p. 550.

Pursuant to Section 27 of this Act, the transport by air of material and substances which are defined by ordinance as dangerous goods, including in particular nuclear fuels and other radioactive substances, is subject to licensing. The licence may be granted as a general licence or in the form of an individual licence. Special regulations governing the transport of nuclear fuels and other radioactive substances are not affected by this provision. The transport of nuclear fuel on one's person or in hand luggage is prohibited.

The new version of the Act entered into force on 1 March 1999.

#### *Amendments to the Dangerous Goods Ordinances (1999)*

The Dangerous Goods Exception Ordinance of 23 June 1993, as last amended by Ordinance of 22 June 1997 (see *Nuclear Law Bulletin* No. 60), was amended by an Ordinance of 23 June 1999 to amend dangerous goods provisions and other provisions (*Bundesgesetzblatt* 1999 I, p. 1435). This Ordinance also amends the Ordinance on the Carriage of Dangerous Goods by Sea of 4 March 1998 (*Bundesgesetzblatt* 1998 I, p. 419) and the Ordinance on the Carriage of Dangerous Goods by Road of 22 December 1998 (see *Nuclear Law Bulletin* No. 63); the new consolidated version of this Ordinance has been corrected by a corrigendum published in *Bundesgesetzblatt* 1999 I, p. 649. These amendments entered into force on 1 January 1999.

#### ***Regulations on Nuclear Trade (including Non-Proliferation)***

##### *Amendments to the Foreign Trade Ordinance (1999, 2000)*

The Foreign Trade Ordinance of 22 November 1993, as last amended by the 45<sup>th</sup> Ordinance of 1998 (see *Nuclear Law Bulletin* No. 63) was further amended by a series of Ordinances on foreign trade (*Bundesanzeiger* 1999 Nos. 88, 101, 142, 244; 2000 No. 15). The 46<sup>th</sup>, 47<sup>th</sup>, 48<sup>th</sup>, 49<sup>th</sup> and 50<sup>th</sup> Ordinances deal with the repeal or amendment of embargoes vis-à-vis certain countries in respect of particular goods.

The 95<sup>th</sup> and 96<sup>th</sup> Ordinances to amend the Export List – Annex AL to the Foreign Trade Ordinance – of 2 December 1998 and 10 June 1999 (*Bundesanzeiger* 1998 No. 231; 1999 No. 125) adapted the Export List to amendments of the Joint List of the European Union for goods with dual use. The amendments ensue from the decisions of the international export control regime *i.e.* the Wassenaar Arrangement, Nuclear Suppliers Group and Australian Group.

The Import List was amended by the 139<sup>th</sup> and 140<sup>th</sup> Ordinances to amend the Import List – Annex to the Foreign Trade Act – of 22 July 1999 and of 15 December 1999 (*Bundesanzeiger* 1999 Nos. 150, 248). The changes to the list do not have any major relevance for the import of nuclear material, equipment etc.

*Act implementing the Verification Agreement as Revised by the 1998 Protocol (2000)*

In conjunction with its ratification of the Protocol of 22 September 1998 Additional to the Agreement of 5 April 1973 between Austria, Belgium, Denmark, Finland, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, EURATOM and the IAEA in implementation of Article III(1) and (4) of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) (*Bundesgesetzblatt* 2000 II, p. 70), the Parliament adopted, on 29 January 2000, an Act to implement the Verification Agreement as revised (*Bundesgesetzblatt* 2000 I, p. 74).

This Protocol to the said 1973 Verification Agreement, which implements IAEA safeguards, aims in particular to avoid hampering the economic and technological development in the European Community or international co-operation in the field of peaceful nuclear activities, and to strengthen and improve the efficiency of IAEA guarantees. The provisions of the Verification Agreement shall apply to the Protocol to the extent that they are relevant to and compatible with the provisions of this Protocol. In the case of conflict between the provisions of the Safeguards Agreement and those of the Protocol, the Protocol shall apply. The 1973 Verification Agreement and the Protocol form the legal basis for safeguards under the NPT, which are implemented by EURATOM and monitored by the IAEA.

The Act to implement the Verification Agreement, as amended, describes the objectives and the limits of safeguards measures (Section 2); their sole purpose is to verify that nuclear material is not used for the manufacture of nuclear weapons or other explosive devices. The Act provides details on the rights and duties of persons obliged to accept safeguards measures, and of IAEA inspectors.

Persons who produce, store, process, use or transport source material or special nuclear material, called “obliged persons” must accept and support IAEA safeguards measures, pursuant to the Verification Agreement [Section 6(1)].

“Additionally obliged persons” are required to support control of activities in accordance with Articles 2, 5, 8 and 9 of the Additional Protocol to the Verification Agreement (Section 14). Such persons are obliged to provide relevant information (Sections 15 and 16) and must allow access to sites (Sections 17 to 19).

With regard to the rights and duties of inspectors, the Act deals only with IAEA inspectors, and not with those from EURATOM, in light of their different legal positions. EURATOM is a supranational international organisation and, consequently, EURATOM inspectors’ powers are based on European law; whereas IAEA is a traditional international organisation and the obligations established under the NPT require implementation into domestic law. Regarding EURATOM inspectors, the Regulation (EURATOM) No. 3227/76 of 19 October 1976, as last amended by Regulation (EURATOM) No. 2130/93 of 27 July 1993 (EC OJ 1976 No. L 363, 1993 No. L 191) establishes the necessary legal framework for their activities.

IAEA safeguards measures shall be carried out in parallel with its European Community counterparts, unless the Community informs obliged persons that there will be no parallel safeguards inspections [Section 6(2)].

The Act will enter into force on the date of entry into force of the Additional Protocol in Germany. On that same date, the Implementing Act of 7 January 1980 (*Bundesgesetzblatt* 1980 1, p. 17 will expire).

## **Japan**

### ***General legislation***

#### *Amendment to the Regulation Law (1999)*

Law No. 166 for the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors (hereinafter referred to as “the Regulation Law”: see *Nuclear Law Bulletin* Nos. 22, 24, 25, 38, 43, 56 and 64) was amended by Law No. 157 of 13 December 1999. This amendment was adopted in the wake of the criticality accident which took place at Tokai-mura on 30 September 1999, in order to strengthen the nuclear safety requirements in force at nuclear facilities. It will enter into force on 1 July 2000.

The amendment reinforces the safety regulations governing the management and operational procedures of nuclear processing plants and nuclear energy facilities. The main changes provide for periodic inspection of processing facilities, and compulsory notification of their dismantling, and regular checks on the management and operational procedures of nuclear energy facilities to ensure compliance with safety regulations. They provide for the appointment of nuclear energy safety inspectors under the authority of the Science and Technology Agency and the Ministry of International Trade and Industry for this purpose. Other provisions establish the duty of nuclear operators to provide safety education to their employees and enable employees to report violations of requirements without being subject to discriminatory treatment.

### ***Organisation and Structure***

#### *Transfer of the Nuclear Safety Commission to the Prime Minister’s Office (1999)*

The Nuclear Safety Commission, an advisory body to the Prime Minister which is responsible for policy and regulations concerning nuclear energy safety, was transferred from the Science and Technology Agency to the newly established Office of Nuclear Safety within the Prime Minister’s Office on 1 April 2000. The transfer was originally planned to take place in January 2001, at the same time as the reorganisation of the whole government, but in the wake of the criticality accident at Tokai-mura in September 1999, it was deemed urgent to strengthen the Commission’s powers and its independent status. The number of members of staff was also increased from 20 to 92.

## ***Radiation Protection***

### *Special Law on Emergency Preparedness for Nuclear Disaster (1999)*

In order to strengthen the applicable legislation following the Tokai-mura accident, Special Law No. 156 on Emergency Preparedness for Nuclear Disaster (hereinafter referred to as “the Special Law”) was adopted on 17 December 1999. This legislation modifies and complements the countermeasures against natural disasters which are established in the Basic Law for Countermeasures against Disaster (Law No. 223 of 15 November 1961). The main provisions of the Special Law are as follows:

- *Nuclear operators’ obligation to prevent the consequences of nuclear disaster:* operators are responsible for preparing an Emergency Plan in consultation with mayors and municipal authorities, both in their own area and neighbouring areas. Nuclear operators are furthermore obliged to install and maintain radiation-measuring equipment, to provide special clothes for radiation protection and communication equipment.
- *Establishment of a Nuclear Disaster Consequences Prevention Organisation:* operators are to establish this body, which will be responsible for taking the necessary measures to prevent or mitigate nuclear damage in the event of an emergency situation. A Nuclear Disaster Prevention Manager, who is responsible for supervising the activities of this Organisation, is also to be nominated by each operator.
- *Designation of an “Off-site Centre”* in each Prefecture where nuclear installations are located.
- *Performance of drills for the prevention of nuclear disaster consequences:* the government, local authorities and operators are obliged to perform drills for the prevention of the consequences of a nuclear disaster, including the simulation of nuclear emergency situations.
- *Declaration of a Nuclear Emergency Situation and establishment of the Government Countermeasures Headquarters:* the Prime Minister is responsible for issuing a Declaration of a Nuclear Emergency Situation, notifying the nuclear emergency situation to the public and giving evacuation instructions to the mayors of relevant municipalities. He furthermore establishes a Government Countermeasures Headquarters within his Cabinet. The Local Countermeasures Headquarters is to be established in the Off-site Centre.
- *Measures to mitigate the effects of a nuclear disaster:* the government, local authorities, operators and designated public organisations shall take measures to mitigate the effects of a nuclear disaster including public medical examinations for residents and investigations into radioactivity levels, and public information in relation to rumours of contamination of local produce.
- *Appointment of Experts for Nuclear Damage Prevention:* in order to instruct nuclear operators on disaster prevention measures and to collect information in the event of emergency, the Science and Technology Agency and the Ministry of International Trade and Industry are to appoint Experts for Nuclear Disaster Prevention at the nuclear installations.

### ***Third Party Liability***

*Ordinance implementing the Law on Compensation for Nuclear Damage (1999)*

*Ordinance implementing the Law on the Indemnity Agreement for Compensation of Nuclear Damage (1999)*

Following the latest amendment to the Law on Compensation for Nuclear Damage (see *Nuclear Law Bulletin* No. 64) and the Tokai-mura accident, Cabinet Orders Nos. 44 and 45 establishing the implementing ordinances for the Compensation Law and the Law on the Indemnity Agreement for Compensation of Nuclear Damage respectively, were both amended by Cabinet Order No. 406 of 1999. These amendments entered into force on 1 January 2000.

Both Ordinances were amended to include nuclear damage resulting from transport, storage or disposal incidental to the storage of nuclear spent fuel within their scope.

The Ordinance implementing the Compensation Law establishes maximum liability amounts in respect of the activities set out in the following table, for which nuclear operators are obliged to take out insurance or other financial security:

Category	New amount Bill. JPY	Old amount Bill. JPY
1. reactor operation (max. thermal power 10 000 kW+)	60	30
2. reactor operation (max. thermal power more than 100 kW but less than 10 000 kW)	12	6
3. reactor operation (max. thermal power less than 100 kW)	2	1
4. fabrication or use of nuclear materials except those under (5)	2	1
5. fabrication or use of 5%+ enriched uranium and plutonium	12	6
6. reprocessing of spent fuel	60	30
7. storage of spent fuel	12	
8. underground disposal of waste except waste under (9)	2	1
9. underground disposal of high-level radioactive waste	12	6
10. transport of nuclear materials incidental to the operation of a nuclear reactor, fabrication, reprocessing or use of nuclear materials, storage of spent fuel and underground waste disposal, except as listed under other categories	2	1
11. transport of (a) 5%+ enriched uranium and plutonium incidental to the activities listed under (10); (b) spent fuel and (c) high-level radioactive waste	12	6

12. storage of nuclear materials incidental to the activities listed under (10) except those materials listed under (13)	2	
13. storage of (a) 5%+ enriched uranium and plutonium incidental to the activities listed under (10); (b) spent fuel and (c) high-level radioactive waste	12	
14. disposal of nuclear materials resulting from the activities listed under (10)	2	1

## Republic of Korea

### *General legislation*

#### *Amendment to the Atomic Energy Act (1999)*

The 15<sup>th</sup> Amendment (No. 483 of 11 March 1958; see *Nuclear Law Bulletin* Nos. 6, 7, 55 and 59) was promulgated on 8 February 1999 as Act No. 5820.

This Amendment demonstrates the Korean Government's policy in respect of the simplification of licensing procedures for construction and operation of nuclear facilities.

The principal changes introduced by this Amendment are as follows:

- The Prime Minister assumes the position of Chairman of the Atomic Energy Commission instead of the Minister of Science and Technology. Furthermore, the Chairman of the Planning and Budget Committee becomes a new member of the Commission [amendment to Article 4(2)].
- The technical standards governing location, structure and facilities of nuclear reactors, which, until now, were established in Presidential Decrees, are now to be regulated by Ordinances of the Ministry of Science and Technology. The standards for quality assurance in relation to the construction and operation of reactors and dosimetry of external radioactivity, which used to be regulated by Notices of the Ministry of Science and Technology are now to be regulated by Ordinances of that same Ministry [amendment to Articles 12, 22, 44, 58, 66, 77, 87 and 90(5)].
- The requirement to submit design data for nuclear reactors was abolished as such data can be verified in the course of the safety review for the construction permit and the operating licence [deletion of Article 14].
- The provisions governing suspension or discontinuance of a reactor project, and the requirement to obtain permission for the transfer and merger of projects were deleted as they were deemed to be duplicated by the terms of the Electricity Business Act [deletion of Article 19; amendment of Articles 20, 32, 36, 56, 63, 75, 83 and 90].

- Persons intending to operate a marine vessel containing a nuclear reactor were previously required to obtain a permit from the Minister of Science and Technology. However, given that such vessels have never been used in Korean territorial waters, apart from warships, and that there is no likelihood of their being used in the near future, this permit regime was abolished [deletion of Article 33(1)].
- The licensing regimes for manufacture of major parts and accessories for reactors and for performance tests were abolished in light of the verification procedures now in force in Korea [deletion of Articles 37 to 42].
- The following provisions were abolished: the approval of facility design/construction method for nuclear fuel cycle facilities; the approval of design/processing method for nuclear fuel; the submission of an operating plan; and the approval of safety control regulations. Instead, in the case of applications for a licence, related documents are to be submitted. Regulations in relation to the nuclear fuel cycle industry which provided that the Minister of Science and Technology should receive prior notice of the appointment of competent personnel to handle nuclear fuel material were also abolished [deletion of Article 44(2) and (3) and Articles 48 to 52].
- New regulations have been established, governing those establishments responsible for the safe management of radioisotopes and inspections of containers containing radioisotopes, and the surveillance of environmental contamination by radioactivity [new Articles 65, 66, 67, 72 and 73].
- A national task force for environmental radioactivity surveillance and evaluation, and a facility measuring radioactivity are to be established [new Articles 104(7)].

The registration regime for services provided to businesses was abolished in the following instances: the removal of radioactive contamination; the removal, processing and shipment of radiation waste; safety control of personnel entering radioactive areas; and the repair of radiation safety control equipment [deletion of Article 75(2) to (5)].

## **Republic of Moldova**

### ***Regime of Radioactive Materials***

#### *Law on Licensing of Certain Activities (1999)*

On 26 March 1999, the Parliament adopted Law No. 332-XIV on Licensing of Certain Activities, which repeals legislative instruments adopted by the former USSR.

The objective of this legislation is to establish a licensing regime and procedures. In this respect, it sets out in Annex 2 the list of activities which are subject to licensing. In particular, it states that the use, import, storage and transport of ionising radiation sources and radioactive materials require such a licence.

The Law also describes the characteristics of a licence, such as its form and content (Section 3), its scope (Section 4) and validity (Section 5), and determines the authorities competent to issue

licences (Section 9). The Ministry of the Environment is the licensing body for use, import and storage of ionising radiation sources and radioactive materials, following prior approval from the Ministry of Health. The Department of Civil Protection and Emergency Situations is responsible for issuing licences for the transport of nuclear materials. It sets out a standard licence application in Annex 1.

## **Myanmar**

### ***General Legislation***

#### *Atomic Energy Law (1998)*

The Atomic Energy Law of Myanmar (Burma) (No. 8/98) was adopted on 8 June 1998. The objectives of this legislation are stated to be the development of the safe uses of atomic energy, the protection of man and the environment from the effects of ionising radiation and the promotion of research and technology in the atomic energy field (Section 3). This Law furthermore establishes the Atomic Energy Council, comprised of representatives from relevant ministries, governmental organisations involved in the field of atomic energy and scientists, and chaired by the Minister of Science and Technology. The Council carries out the following tasks:

- definition of short- and long-term policy in relation to the use of atomic energy;
- provision of guidance and control in respect of the use, production, storage, distribution, sale, import, export or disposal of nuclear materials, radioactive material or irradiation apparatus, and in relation to licensing and registration procedures;
- establishment of the necessary controls in relation to nuclear or radioactive material or irradiation apparatus;
- promotion of research and development in the field of atomic energy, including co-operation with other competent national and international bodies;
- provision of advice to the government in respect of international conventions and other instruments relating to atomic energy, and in relation to the dissemination of information on the effects of atomic energy to the public; and
- co-ordination with the competent ministries on the teaching of subjects related to atomic energy.

Sections 7 to 10 of the Law define in detail the responsibilities of the Ministry of Science and Technology in relation to registration, licensing and inspection.

The Department of Atomic Energy carries out research relating to the applications of atomic energy and radiation protection, in collaboration with other national and international bodies. It is also responsible for issuing registration certificates (Chapter VII of this Law) and licences (Chapter VIII) for possession, use, production, storage, distribution or sale of nuclear or radioactive materials and irradiation apparatus. The Department furthermore grants prior permission (Chapter IX) for the import or export of such items.

The final provisions of this legislation establish penalties for breach of its provisions, and provide that appeals against decisions made pursuant to this Law shall be heard by the Ministry of Science and Technology, whose final decision shall be conclusive.

## **Romania**

### ***Organisation and Structure***

#### *Regulation on the Accreditation of Bodies in the Nuclear Field (1999)*

On 10 December 1999, the President of the National Commission for the Control of Nuclear Activities (CNCAN) issued Order No. 219 governing the Accreditation of Bodies in the Nuclear Field (*Monitorul Oficial*, No. 87/28 February 2000). This text was adopted pursuant to Government Ordinance No. 38 of 30 January 1998 on accreditation, which states in particular that the CNCAN is responsible for assessing and accrediting certification bodies and laboratories in the nuclear field.

Order No. 219 provides that the following types of bodies will be accredited (“notified bodies” under the Romanian legislation): testing laboratories, calibration laboratories, products certification bodies, quality assurance certification bodies and personnel certification bodies. These bodies provide the CNCAN with reports on specific issues related to the licensing of nuclear activities to help it in its task of determining whether or not a licence should be granted. It sets out the criteria which should be fulfilled by these bodies in order to be accredited.

The Order entered into force on 29 March 2000.

## **Slovenia**

### ***Transport of Radioactive Materials***

#### *Act on Transport of Dangerous Goods (1999)*

An Act on Transport of Dangerous Goods was adopted by the Parliament in September 1999 and it entered into force on 1 January 2000. This Act replaces the 1990 Act on the Transport of Dangerous Substances (Official Gazette No. 27/90). It applies to the transport of nuclear and radioactive materials and confirms the direct application of several international agreements, in particular the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) and the International Regulations concerning the Carriage of Dangerous Goods by Rail (RID).

## South Africa

### *General Legislation*

#### *Nuclear Energy Act (1999)*

#### *National Nuclear Regulator Act (1999)*

A new Nuclear Energy Act (No. 46) and a National Nuclear Regulator Act (No. 47), both of which were adopted on 20 December 1999 and entered into force on 24 February 2000, repeal and replace the 1993 Nuclear Energy Act (No. 131) (see *Nuclear Law Bulletin* No. 53). The purpose of the Nuclear Energy Act is to create the South African Nuclear Energy Corporation Limited (NECSA), to implement the Safeguards Agreement, to regulate the acquisition, possession, importation and exportation of nuclear fuel, nuclear material and related equipment and to prescribe measures regarding the disposal of radioactive waste and the storage of irradiated nuclear fuel. The National Nuclear Regulator Act aims to establish a National Nuclear Regulator and to provide for safety standards and regulatory practices for protection of persons, property and the environment against nuclear damage. Thus, this new legislation aims to draw a clearer dividing line between nuclear regulation and the development and use of nuclear material and equipment, and consequently to place each organisation responsible for these activities under the scope of separate laws.

These two Laws establish the new organisations competent in the nuclear field: the NECSA and the National Nuclear Regulator.

- The Nuclear Energy Act defines the **South African Nuclear Energy Corporation Limited** as a public company, wholly owned by the state, and subject to the Companies Act. The NECSA, which replaces the Atomic Energy Corporation (AEC), is mainly responsible for promoting research and development in the field of nuclear energy and radiation sciences and technology, processing source material, special nuclear material and restricted material and reprocessing and enriching source material and nuclear material. The Act sets out other ancillary powers and functions of the NECSA, such as the right to possess, manufacture, import, export and transport certain specified nuclear material. The NECSA is comprised of a board, committees and a chief executive officer.
- Act No. 47 provides that the **National Nuclear Regulator** replaces the Council for Nuclear Safety (CNS) and takes over all its assets and responsibilities. The Regulator is comprised of a board of directors, committees and a chief executive officer. The objectives of the Regulator are, *inter alia*, to ensure the protection of persons, property and the environment against nuclear damage through the enactment of safety standards and regulatory practices; to exercise regulatory safety control over the siting, design, construction, operation, decontamination, decommissioning and closure of nuclear installations through the granting of nuclear authorisations; and to ensure that provisions for nuclear emergency planning are in place. For this reason, the Regulator is primarily responsible for issuing or amending nuclear authorisations.

As regards the licensing of nuclear activities, the Nuclear Energy Act deals with nuclear material and waste and the National Nuclear Regulator Act governs nuclear installations and vessels:

- **Nuclear material and waste.** The Nuclear Energy Act devotes its Chapter III to non-proliferation and appoints the Minister of Minerals and Energy as the national authority responsible for the implementation and application of the Safeguards Agreement. It is in charge of detecting and identifying nuclear material intended to be used for peaceful purposes and deterring the diversion of such material to the manufacture of nuclear weapons or other nuclear explosive devices. The Act then lists the Minister's duties and powers to fulfil his responsibilities. It also establishes obligations for any person possessing, using, handling or processing nuclear material, *i.e.* undertaking the registration and inventory, ensuring the physical protection, etc., of this material. The Act also requires authorisation from the Minister, after consultation of the South African Council for the Non-Proliferation of Weapons of Mass Destruction, for acquisition and possession of restricted material and nuclear-related equipment and material. The Act furthermore provides that an inspector may enter premises and perform any inspection or investigation necessary for monitoring compliance with Act with regard to restricted matter and activities. The Minister may acquire source material and special nuclear material whenever the national interest so requires. Authority over the management and disposal of radioactive waste and storage of irradiated fuel is also vested in the Minister, who issues permission for carrying out these activities. Lastly, the Minister provides certain restricted matter for research, development and training purposes (Chapter IV).
- **Nuclear installations and vessels.** The National Nuclear Regulator Act states that the National Nuclear Regulator is responsible for issuing and revoking licences for the siting, construction, operation, decontamination or decommissioning of nuclear installations and vessels. The application procedure is then described (Chapter III). The Regulator may attach conditions to the licence. A certificate of exemption from licensing requirements may be issued in certain circumstances. The Act also lays down the responsibilities of licensees.

The National Nuclear Regulator Act also deals with other matters, in particular with **third party liability and financial security** (Chapter IV). Pursuant to the Act, the holder of a nuclear installation licence is strictly and absolutely liable for nuclear damage caused by or resulting from the relevant nuclear installation. The licensee's liability is furthermore limited to the amount which shall be set out by the Minister. The Act provides that the Minister of Minerals and Energy shall determine the level of financial security to be provided by holders of nuclear installation licences, taking into account the different categories of installations to be set out by the Minister. The licensee is exempt from its liability in two cases: if the damage is attributable to the presence of a person or the property of a person at or in the nuclear installation or on the site in respect of which the licence has been granted, without the permission of the licensee; or if a person intentionally caused, or intentionally contributed to, such damage. State funding is provided for where the total amount of claims for compensation against a licensee exceeds the amount for which the licensee has given security. An action may be instituted in a period of 30 years from the date of the occurrence which gave rise to the right to claim that compensation.

Chapter V of the Law prescribes safety and emergency measures. In particular, it sets out the duties of licensees and of the Regulator regarding nuclear accidents and incidents and emergency planning. Records of nuclear installations and of nuclear accidents and incidents are kept by the Regulator.

## Switzerland

### *Radiation Protection*

#### *Amendment to the Radiological Protection Ordinance (1999)*

An amendment to the Radiological Protection Ordinance of 22 June 1994 (see *Nuclear Law Bulletin* No. 55 and the Supplement to *Nuclear Law Bulletin* No. 57) was approved by the Federal Council and entered into force on 1 January 2000.

The amendment concerns certain technical details, namely the revision of Annexes 3 and 4 to conform to the new radiation protection dose factors adopted by the International Radiological Protection Commission. The Ordinance is therefore in line with current advances in science and technology. The modification also covers the supervisory powers of the Paul-Scherrer Institute (IPS). There are, in fact, several nuclear installations on the IPS site, along with other installations subject to licensing, such as accelerators and laboratories. Until now, the whole facility was subject to licensing by the Federal Energy Office and placed under the supervision of the Principal Division for the Safety of Nuclear Installations. The supervision of its medical installations constitutes an exception as this is one of the tasks of the Federal Office of Public Health. IPS's non-nuclear installations which are subject to the radiation protection legislation, such as the spallation neutrons source, the synchrotron light source, under construction, and the installations of proton therapy for cancer treatment, will be supervised as of 1 July 2000 by the Federal Office of Public Health.

#### *Ordinance on Individual Dosimetry (1999)*

On 7 October 1999, the Federal Department of the Interior and the Federal Department of the Environment, Transport, Energy and Communications adopted, pursuant to Section 52 of the Radiological Protection Ordinance of 22 June 1994 (see *Nuclear Law Bulletin* No. 55 and the Supplement to *Nuclear Law Bulletin* No. 57), an Ordinance on Individual Dosimetry. This Ordinance entered into force on 1 January 2000. It is comprised of 4 chapters, divided into 42 sections, plus 10 annexes.

The objective of this Ordinance is to lay down technical provisions governing individual dosimetry, and to establish requirements in respect of dosimetric systems.

The Federal Office of Public Health and the Principal Division for the Safety of Nuclear Installations which, pursuant to Section 47 of the Radiological Protection Ordinance, are the competent authorities for certifying individual dosimetry services, also exercise supervisory powers over such services.

The Ordinance sets out the obligations of individual dosimetry services in the event of termination of activities (obligation to provide the certifying authority, its principals and the supervisory authorities with six months notice of such termination, obligation to provide archival data to the new individual dosimetry services etc.), in the case of rescission of their contract, and the dosimetry of persons under obligation in the event of increased radioactivity.

The Ordinance also specifies the methods of dosimetry supervision (wear of the dosimeter, period of measurement etc.), the technical requirements which dosimetry systems must fulfil, technical

definitions and conditions, minimum requirements for measurement services and conditions governing their certification and standard models for calculations.

### ***Radioactive Waste Management***

#### *Ordinance on the Fund for the Management of Radioactive Waste from Nuclear Power Plants (2000)*

The Swiss Government approved, by Decision of 6 March 2000, the above Ordinance. This Fund aims to cover management costs for radioactive waste produced after the decommissioning of a nuclear power plant. It will form, with the Fund for the Decommissioning of Nuclear Installations (see *Nuclear Law Bulletin* No. 33), the second body whose objective is to guarantee the financing of activities resulting from the operation and the dismantling of a nuclear installation.

“Management cost” is understood to mean all expenses necessary for the disposal of radioactive waste and spent fuel assemblies resulting from the operation of the plant. These expenses also include costs for research related to the disposal of radioactive waste, preparatory actions, the design, construction and operation of management equipment, and to the closure of a final repository. The management costs are calculated every five years for each nuclear plant, based on a period of activity of 40 years.

The operators of nuclear power plants are obliged to pay an annual contribution which will be determined in order to cover the theoretical management costs, as well as the administrative and secretarial expenses of the Fund. In the event that contributions are not sufficient, the operator is obliged to pay the balance necessary, even after operations at the plant have ceased (including in the case of early closure of the installation).

The assets of the Fund are invested in such a way that their safety is ensured, while providing reasonable conditions of interest and sufficient liquid assets for each plant.

The Fund is comprised of two bodies, an Administrative Commission and a Secretariat. It is supervised by the Federal Department of the Environment, Transport, Energy and Communications, which is entrusted with the preparation of a regulation to implement this Ordinance. The Ordinance partly entered into force on 1 April 2000, while its implementing regulation and the remainder of the Ordinance will enter into force on 1 January 2001.

# Ukraine

## *Organisation and Structure*

### *Restructuring of the Nuclear Sector (1999)*

On 15 December 1999, the President of Ukraine issued a Decree introducing a number of changes into the structure of the government. This Decree reduces the number of Ukraine's ministries and other executive bodies. The Ministry of the Environment and Natural Resources replaces the following bodies:

- Ministry of Environmental Protection and Nuclear Safety;
- Committee on Geology and Land Utilisation;
- Hydrometeorology Committee;
- State Nuclear Regulatory Administration;
- Main Department for Geodesy, Mapping and Cadastre; and
- State Commission on Testing and Registration of Pesticides and Fertilizers.

The State Nuclear Regulatory Administration (SNRA) becomes a part of the Ministry of the Environment and Natural Resources as the Department for Nuclear Regulation. The main structure and functions of the Department will be similar to those of the former SNRA. It will be headed by the Deputy Minister for Industry and Agriculture and two deputy heads. One of the deputy heads will supervise the Office for Nuclear Installation Safety, the Office for the Safety of Radioactive Waste Management and the Department for the Safety of Radioactive Technologies and Devices, while the other will manage the Office of Normative and Legal Regulation of Nuclear and Radiation Safety and the Office of Physical Protection and Nuclear Weapons Non-proliferation and Safeguards.

The Ministry of Fuel and Energy, who is responsible for the regulation of nuclear energy and radiation safety, replaces the following bodies:

- Ministry for Coal;
- Ministry of Energy;
- State Department for Electrical Energy;
- State Department for Oil/Gas and the Oil-refining Industry;
- State Department for Nuclear Energy (former *Goskatom*).

The Department for Nuclear Energy will be established within the new Ministry of Fuel and Energy. The status and structure of this Department has not yet been defined.

## ***Regime of Nuclear Installations***

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

The President of Ukraine signed the above Law on 11 January 2000, and it entered into force on the same date. It defines the legal and organisational framework governing permitted activities in the field of nuclear energy and provides for certain exemptions from the general provisions established by the Law on Business Undertakings.

The Law aims to ensure that operators of nuclear facilities, users of radiation sources and managers of radioactive waste management installations comply with internationally-accepted safety levels. It lists those activities in the nuclear energy field which are subject to licensing: design, construction, commissioning, operation and decommissioning of nuclear facilities or radioactive waste storage or disposal facilities; processing of uranium ore; transport of radioactive material; processing, storage and disposal of radioactive waste; manufacture, storage, use and maintenance of radiation sources; activities related to the physical protection of nuclear material; and training of personnel operating nuclear facilities. The Law also provides for exemptions from licensing requirements for the use of certain radiation sources. Furthermore, it describes the licensing procedure and describes the content of a licence, including any conditions which may be attached thereto.

Supervision to ensure compliance with licence conditions is carried out through inspections and analysis of nuclear and radiation safety. The licensing authority may suspend or revoke a licence.

The Law also requires certification of *inter alia* radiation sources, packages for radioactive waste storage or disposal and packages for radioactive material transportation. Radioactive sources are also subject to state registration.

Lastly, this Law amends Section 33 of the 1995 Law on the Use of Nuclear Energy and Radiation Safety on the definition of “operating organisation” (see the Supplement to *Nuclear Law Bulletin* No. 56).

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Directory: N:\Jackson\NLB65\FINAL  
Template: \\aenea1\winsoft\Office97\Workgroup  
Templates\AUTHENV2.wiz  
Title: NATIONAL LEGISLATIVE AND REGULATORY  
ACTIVITIES  
Subject:  
Author: J. JACKSON  
Keywords:  
Comments:  
Creation Date: 30-05-00 12:02  
Change Number: 2  
Last Saved On: 30-05-00 12:02  
Last Saved By: J. JACKSON  
Total Editing Time: 1 Minute  
Last Printed On: 29-06-01 16:12  
As of Last Complete Printing  
Number of Pages: 28  
Number of Words: 10,694 (approx.)  
Number of Characters: 60,961 (approx.)