

# NATIONAL LEGISLATIVE AND REGULATORY ACTIVITIES

## Belgium

### *General Legislation*

*Act on the Phase-out of Nuclear Energy for the Purposes of the Industrial Production of Electricity (2003)*

This Act, adopted on 31 January 2003 and published in the Official Journal (*Moniteur belge*) of 28 February 2003, entered into force on 10 March 2003 (see *Nuclear Law Bulletin* No. 70 for a description of this legislation). The text of the Act is reproduced in the Chapter “Texts” of this edition of the *Bulletin*.

### *Organisation and Structure*

*Royal Decree Setting out the Composition and Powers of the Scientific Board for Ionising Radiation Established Alongside the Federal Agency for Nuclear Control (2002)*

This Royal Decree of 18 December 2002 provides that the Scientific Board for Ionising Radiation, established by Section 37 of the 1994 Act on Protection of the Public and the Environment against Radiation and Relating to the Federal Agency for Nuclear Control (see *Nuclear Law Bulletin* Nos. 53, 54, 59, 61, 65 and 69), is responsible for providing an opinion on any question, whether of a general or specific nature, submitted to it by the Director-General of the Agency, the Chairperson of the Governing Board of the Agency or the competent Minister, in relation to licences, control or policy in this respect.

The Board is made up of scientific members nominated by the competent Minister for a period of six years.

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

### *Royal Order on the Certificate of Training for Drivers of Vehicles Transporting Radioactive Materials by Road (2003)*

This Royal Order of 6 February 2003 completes the implementation of Council Directive 94/55/EC of 21 November 1994 on the approximation of the laws of the Member States with regard to the transport of dangerous goods by road and repeals the Royal Order of 15 December 1994 on the Certificate of Training for Drivers of Transport Units Transporting Radioactive Materials by Road.

The Order imposes an obligation on drivers transporting such materials by road to obtain a certificate of training. It further describes the content of the training course and the manner in which examinations are to be organised.

## **Brazil**

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

#### *Resolution of the CNEN on Radioactive Waste Repositories (2002)*

Resolution No. 12 of the National Nuclear Energy Commission (CNEN) was published in the Official Journal of 23 September 2003. It aims to establish the final denomination of radioactive waste repositories, classified as initial, intermediary and final, in order to ensure the protection of workers, the public and the environment against the dangers resulting from ionising radiation (see *Nuclear Law Bulletin* No. 69 on the 2001 Law on Radioactive Waste Repositories).

Pursuant to this Resolution, radioactive waste repositories are defined as follows:

- initial storage – storage of radioactive waste on the site of the installation where it was produced;
- intermediary repository – installation authorised by the competent authorities and designed to hold and, eventually, to treat or condition radioactive waste before its transfer to the final repository;
- provisional repository – installation designed to store radioactive waste from zones where a radiological or nuclear accident has taken place before its transfer to other repositories, in line with the safety conditions established by the CNEN;
- final repository – installation authorised by the competent authorities and designed for the disposal of radioactive waste, in line with the criteria established by the CNEN concerning radioactive waste coming from initial storage or intermediary or provisional repositories.

## **Bulgaria**

### ***General Legislation***

#### *Act on the Safe Use of Nuclear Energy (2002)*

This Act was adopted on 28 June 2002 and entered into force on 1 January 2003 (see *Nuclear Law Bulletin* No. 70). The text of this Act is reproduced in the Supplement to this *Bulletin*.

## **Canada**

### ***General Legislation***

#### *Amendment to the Nuclear Safety and Control Act (2003)*

An amendment to the Nuclear Safety and Control Act (NSCA – see *Nuclear Law Bulletin* Nos. 60, 65 and 66; the text of this Act is reproduced in the Supplement to *NLB* No. 60) came into effect on 13 February 2003 varying the classes of persons that the Canadian Nuclear Safety Commission (CNSC) may order to clean up contaminated places.

Under the heading “Exceptional Powers”, Section 46 of the NSCA provides the CNSC with the authority to hold a public hearing to determine whether contamination has occurred in any place and if so, to order certain persons to take measures to reduce the level of contamination [Subsection 46(3)]. Prior to the amendment, the classes of persons that could be so ordered were: the owner, occupant, or any other person with a right to or interest in, the affected land or place. A “person with a right to or interest in” land could have included a lender who had a mortgage interest in a nuclear site but who was not involved in the management of the facility. Lenders perceived the provision as creating potentially unlimited liability (a situation which does not exist in Canada’s environmental laws pertaining to other industries) resulting in a barrier to private sector investment in Canada’s nuclear industry.

The amendment to subsection 46(3) of the NSCA removed the words “with a right to or interest in” and inserted “who has the management and control of” so that the provision now reads as follows:

“Where, after conducting a hearing, the Commission is satisfied that there is contamination referred to in subsection (1), the Commission may, in addition to filing a notice under subsection (2), order that the owner or occupant of, or any other person who has the management and control of, the affected land or place take the prescribed measures to reduce the level of contamination.”

As a result of the amendment, lenders would not face potential liability unless they become the owners or occupants of the land or place or exercise management and control over it.

The text of this amendment is available in English at the following URL:  
[www.parl.gc.ca/37/2/parlbus/chambus/house/bills/government/C-4/C-4\\_4/C-4\\_4\\_cover-E.html](http://www.parl.gc.ca/37/2/parlbus/chambus/house/bills/government/C-4/C-4_4/C-4_4_cover-E.html)

## Chinese Taipei

### *Radiation Protection*

#### *Ionising Radiation Protection Act (2002)*

This Act was promulgated on 20 January 2002 by Presidential Decree and entered into force on 1 February 2003. Nineteen detailed rules and regulations, including safety standards, for the implementation of this Act, were also promulgated before its entry into force.

The purpose of this Act is to regulate the proper management of radioactive material, equipment capable of emitting ionising radiation and radiation practices, in order to prevent the detrimental effects of ionising radiation.

The Act is divided into five chapters, governing respectively General Provisions, Radiation Safety and Protection, Management of Radioactive Material, Equipment or Practices, Penal Provisions and Supplementary Provisions.

The competent authority under this Act, the Atomic Energy Council (AEC) shall refer to the most recent standards of the International Commission on Radiological Protection (ICRP) in order to establish the Safety Standards on Protection against Ionising Radiation, to develop relevant guides and to define operational criteria governing radiation protection, including dose limits etc. (Section 5). The personal dose limits of the new Safety Standards are based on ICRP-60 recommendations.

The operator shall establish a radiation protection plan and submit it to the AEC for approval (Section 7). Personnel who handle radioactive material or who operate radiation-emitting equipment shall be trained according to standards established by the AEC and shall obtain a radiation safety certificate or licence.

The operator shall, in accordance with the provisions established by the AEC, designate controlled or supervised areas within the radiation workplace, based on the type of facility, the characteristics of the practices and the level of the radiation exposure (Section 10). The AEC is entitled to inspect the workplace at any time (Section 11). Sections 12 and 13 set out the requirements for the operator in the event of a nuclear accident. Sections 14 to 18 describe the medical surveillance and dose limits etc. applicable to radiation workers.

In order to guarantee the health and safety of the public, the AEC shall:

- select appropriate locations to install radiation monitoring detectors to conduct environmental radiation monitoring;
- dispatch officers with a warrant to examine ionising radiation conditions in public or private places where radiation exposure is suspected;
- forbid the addition of radioactive material to all commodities without its approval;
- conduct radiation tests or inspections where a commodity is suspected of exposing the public to ionising radiation;

- Inspect and monitor raw materials used for construction to ensure there is no radioactive contamination (Sections 19-25).

Use of radioactive material, operation of equipment capable of producing ionising radiation and radiation practices are all subject to delivery of a permit by the AEC (Section 29). Such permit may be delivered for a maximum period of five years, subject to renewal.

Chapter IV sets out penalties for the first time in relation to unauthorised radiation practices. It provides for imprisonment for periods up to three years, and/or an administrative fine of up to 3 M New Taiwan Dollars (TWD).

The AEC is entitled to delegate tasks relating to accreditation, training, inspection, training or monitoring to relevant qualified organisations, schools or institutions.

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

#### *Nuclear Reactor Facilities Regulation Act (2003)*

The Act regulating Nuclear Reactor Facilities was promulgated by Presidential Decree on 15 January 2003. The purpose of this Act is stated to be the regulation of nuclear installations in order to secure public safety. This legislative text has evolved from certain sections of the Atomic Energy Law of 1968, as amended, and also from various regulatory guides which required reclassification to legislative status.

The five chapters of this Act govern respectively General Provisions, Construction and Operation Regulations, Shutdown and Decommissioning Regulations, Penal Provisions and Supplementary Provisions. Some of the most important features are described below.

Chapter II provides that an operating licence may be issued by the Atomic Energy Council (AEC) for a maximum period of 40 years, subject to renewal (Section 6). The operator is required to conduct a comprehensive safety assessment and submit the report to the AEC for review at least once every ten years (Section 9).

The operator must also establish an emergency planning system, governing in particular activities carried out in the “restriction zone” and the “low population zone” in the vicinity of the installation, and submit it to the competent authorities (Section 4). Sections 11 and 12 set out requirements in relation to the qualifications, training, licensing and medical surveillance of personnel, and provide that rules on issue, renewal, suspension and revocation of personnel licences shall be established by Regulations.

The operator of a nuclear reactor facility is required to retain an independent body to oversee the design, construction, inspection and testing of the facility to ensure compliance with the nuclear safety requirements (Section 15).

Chapter III provides that the operator shall submit a decommissioning plan and an environmental impact assessment to the competent authorities three years prior to the permanent termination of operations (Section 23). The operator is also required to submit a plan to the AEC for approval in relation to “off-commissioning”, defined as the planned shut-down of a facility for a period of over one year.

Detailed provisions are set out in Sections 29 to 40 on the administrative fines (ranging between 100 000 New Taiwan Dollars (TWD) and TWD 15 M and possible imprisonment (of up to three years) in respect of various offences under this legislation.

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

#### *Nuclear Materials and Radioactive Waste Management Act (2002)*

This Act was promulgated by Presidential Decree and entered into force on 25 December 2002. It aims to regulate the proper management of radioactive material and radioactive waste in order to prevent radioactive hazards and ensure public safety.

The Act is divided into five chapters, governing respectively General Principles, Administration of Nuclear Source Material and Nuclear Fuel, Administration of Radioactive Waste and Supplementary Provisions.

Chapter II establishes requirements in relation to licences delivered by the Atomic Energy Council (AEC) to construct production and/or storage facilities for nuclear source material and/or nuclear fuel. In particular, the operator is required to submit an application demonstrating his capacity to manage, store and finally dispose of the radioactive waste generated by such facilities. The AEC shall publish and display such applications, establishing a period of time within which individuals, government agencies or organisations may submit opinions (Section 8).

Before an operating licence for such a facility is issued, the AEC shall verify that an approval from a domestic or foreign facility for the final disposal of radioactive waste has been approved in respect of the waste generated by that facility (Section 9). Licences are granted for a maximum period of 40 years, subject to renewal.

The operator of such facilities are required to submit to the AEC on a regular basis reports on operation, radiation protection, environmental radiation monitoring, irregularities or emergencies; production, inventory and sales records in respect of nuclear source material and nuclear fuel; and records on generation, treatment, storage and/or final disposal of radioactive waste (Section 10). The AEC in turn is entitled to carry out inspections or to request documents or materials at any time (Section 13).

Chapter III describes the procedure applicable for the construction of treatment, storage, or final disposal facilities for radioactive waste. Similar requirements exist in relation to publication of applications by the AEC and the possible submission of opinions (Section 17). Operators of such facilities are also subject to the general requirements concerning provision of reports and records to the AEC.

Section 25 provides that radioactive waste shall not be imported, exported, transited, held, discarded or transferred without approval by the competent authorities. Section 28 provides that the producer of radioactive waste shall bear the necessary expenses for its treatment, carriage, storage and final disposal. Section 30 further states that the final disposal facilities shall hold the radioactive waste generated by the whole country, and the necessary expenses for such disposal shall be supported by the budget drawn up by the government.

Chapter IV sets out penalties in relation to offences under this Act. It provides for imprisonment for periods up to five years, and/or an administrative fine of up to 100 M New Taiwan Dollars (TWD).

Chapter V provides (Section 46) that operators of nuclear-power-generating facilities shall set aside at least 2% of funds generated from the back end of the nuclear cycle to assign to research and development activities concerning the operating technology of radioactive materials and/or final disposal.

An English translation of this Act is available from the Web site of the Fuel Cycle and Materials Administration of the Atomic Energy Council at [www.fcma.aec.gov.tw/english/engfrm.htm#03](http://www.fcma.aec.gov.tw/english/engfrm.htm#03)

## **Czech Republic**

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

#### *Decree on Performance and Management of the National Radiation Monitoring Network (2002)*

Decree No. 319/2002, which entered into force on 18 July 2002, aims to implement certain provisions of Council Directive 89/618/Euratom on Informing the General Public about Health Protection Measures to be Applied and Steps to be Taken in the Event of a Radiological Emergency (see *Nuclear Law Bulletin* No. 45) and also provides for the application of Council Decision 87/600/Euratom on Community Arrangements for the Early Exchange of Information in the Event of a Radiological Emergency (see *Nuclear Law Bulletin* Nos. 39 and 41) and relevant provisions of the Euratom Treaty (Chapter 3, Articles 35 and 36).

The Decree establishes the details of the functioning and the organisation of the National Radiation Monitoring Network established under the supervision of the State Office for Nuclear Safety.

### ***Radiation Protection***

#### *Decree on Radiation Protection (2002)*

This Decree No. 307/2002 entered into force on 12 July 2002. It aims to implement 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 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).

#### *Decree on the Professional Qualifications and Training of Personnel in Relation to Nuclear Safety and Radiation Protection (2002)*

This Decree No. 315/2002 entered into force on 16 July 2002. It amends Decree No. 146/1997 (see *Nuclear Law Bulletin* No. 60) in relation to requirements on qualifications and professional

training of personnel in the nuclear field, on methods to be used for the verification of their special professional qualifications and on the issue of authorisations to selected members of personnel.

This Decree aims to harmonise definitions with European legislation and in particular to implement 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 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).

#### *Decree on Personal Radiation Passports (2002)*

Decree No. 419/2002 establishes details on the issue, registration, verification and use of personal radiation passports. This radiological monitoring document is to be used until a uniform Community system is established governing the operational protection of transboundary outside workers performing activities in controlled areas. The Decree aims to implement Council Directive 90/641/Euratom on the Operational Protection of Outside Workers Exposed to the Risk of Ionising Radiation during their Activities in Controlled Areas (see *Nuclear Law Bulletin* No. 47).

#### *Decree on Emergency Preparedness of Nuclear Facilities and Workplaces with Ionising Radiation Sources (2002)*

This Decree No. 318/2002 entered into force on 18 July 2002. It aims to implement certain provisions of Council Directive 89/618/Euratom on Informing the General Public about Health Protection Measures to be Applied and Steps to be Taken in the Event of a Radiological Emergency (see *Nuclear Law Bulletin* No. 45) and also provides for the application of Council Decision 87/600/Euratom on Community Arrangements for the Early Exchange of Information in the Event of a Radiological Emergency (see *Nuclear Law Bulletin* Nos. 39 and 41).

The Decree specifies the scope and requirements of compulsory documentation relating to emergency preparedness in nuclear facilities and workplaces where ionising radiation sources are used, including on-site emergency plans and emergency rules.

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

#### *Decree Concerning Financial Reserves for the Decommissioning of Nuclear Installations or Category III or IV Workplaces (2002)*

This Decree No. 360/2002 of the Ministry of Industry and Trade was adopted on 19 July 2002. It defines the manner in which licensees of nuclear installations and category III or IV workplaces may constitute reserves for the decommissioning of their installations, through deposits on a blocked special account in a bank in the Czech Republic. The resources will be available for preparation and performance of decommissioning activities at the required time and in the required amount in line with the programme of decommissioning approved by the State Office for Nuclear Safety. Interest from capital deposited shall accrue the financial reserve. These resources may be used solely for the preparation and implementation of decommissioning and the Radioactive Waste Repositories Authority (see *Nuclear Law Bulletin* Nos. 59 and 61) shall approve any spending.

## ***Radioactive Waste Management***

### *Order on Payments to the Nuclear Account by Generators of Radioactive Waste (2002)*

This Governmental Order No. 416/2002, adopted on 28 August 2002, establishes the amounts and methods of payment to the Nuclear Account by generators of radioactive waste and provides for the administration of these resources. The Nuclear Account is a special fund provided by the State to finance all activities regarding radioactive waste disposal including those of the Radioactive Waste Repositories Authority established by the 1997 Act on the Peaceful Uses of Nuclear Energy and Ionising Radiation (see *Nuclear Law Bulletin* Nos. 59 and 61). This Order also provides for an annual contribution to be made to municipalities having a radioactive waste repository on their cadastral area.

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

### *Decree on Packaging and Transport of Nuclear Materials, Radioactive Substances and Ionising Radiation Sources (2002)*

This Decree No. 317/2002 on Type Approval of Packaging Assemblies for Transport, Storage and Disposal of Nuclear Materials and Radioactive Substances, on Type Approval of Ionising Radiation Sources and on Transport of Nuclear Materials and Specified Radioactive Substances entered into force on 18 July 2002. It aims to implement certain provisions of Council Directive 92/3/Euratom of 3 February 1992 on the Supervision and Control of Shipments of Radioactive Waste between Member States and Into and Out of the Community (see *Nuclear Law Bulletin* No. 49). It further provides for application of Regulation (Euratom) No. 1493/93 of 8 June 1993 on Shipments of Radioactive Substances between Member States (see *Nuclear Law Bulletin* Nos. 52 and 53).

The Decree establishes a list of nuclear materials and radioactive substances which must be transported, stored or disposed in type-approved packaging assemblies only, sets out prerequisites for such type approvals and lays down details on the transport of nuclear materials and specified radioactive substances.

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

### *Decree on Accounting and Control of Nuclear Materials (2002)*

Decree No. 316/2002 entered into force on 16 July 2002 and amends Decree No. 145/1997 on Accounting and Control of Nuclear Materials (see *Nuclear Law Bulletin* No. 60). This Decree establishes further requirements relating to Euratom safeguards.

### *Decree Laying Down a List of Selected Items and Dual-Use Items in the Nuclear Sector (2002)*

Decree No. 179/2002, which entered into force on 1 June 2002 establishes a list of selected items and dual-use items based on the relevant international legislation (IAEA Recommendations and

Regulation (EC) No. 1334/2000 of 22 June 2000 setting up a Community Regime for the Control of Exports of Dual-use Items and Technologies (see *Nuclear Law Bulletin* No. 70).

## **France**

### ***Radiation Protection***

#### *Decree on the Protection of Workers Against the Dangers Arising from Ionising Radiation (2003)*

This Decree No. 2003-296, adopted on 31 March 2003, aims to complete the implementation of Council Directive 96/29/Euratom of 13 May 1996 laying down the 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* Nos. 58 and 61). The new provisions have been inserted into the Labour Code (Book II, Title III, Chapter I, Section VIII).

The Decree provides that the head of an establishment is required to take the necessary general, administrative and technical measures (in particular in relation to the organisation of work and working conditions) to prevent work-related accidents and occupational illnesses that can be caused by exposure to ionising radiation.

It confirms the principle whereby individual and collective professional exposure to ionising radiation must be maintained at the lowest level reasonably achievable, and it reduces the annual effective dose for exposed workers from 50 mSv to 20 mSv. During a period of two years from the entry into force of the Decree, the maximum sum of the effective doses received from external and internal exposure is set at 35 mSv per year, with a further maximum of 100 mSv over a period of five consecutive years, again from entry into force of the Decree.

The Decree also contains a collection of technical rules in relation to the manner in which work premises should be laid out (marking of zones and signalling of monitored zones and controlled zones, technical control of sources and equipment emitting ionising radiation, protection and alarm systems, measuring instruments used etc.).

Workers exposed to ionising radiation are divided into two categories according to the dose which they are liable to receive (annual effective dose higher or lower than 6 mSv). Radiation protection training is provided. They are also subject to dosimetric control through individual measurement of their external and internal exposure. Furthermore, workers who carry out activities in controlled zones (who may receive an annual dose which is higher than 6 mSv) are subject to occupational dosimetric control. The personal results of occupational dosimetric readings are transferred to the head of the establishment.

Furthermore, the Decree sets out in detail medical surveillance procedures for exposed workers, rules concerning abnormal working situations, practical organisation of radiation protection (designation and responsibilities of a person responsible for radiation protection, role of the different bodies such as the in-house doctor and the Institute for Radiation Protection and Nuclear Safety) as well as the rules which apply in relation to occupational exposure linked to natural radioactivity.

*Decree on the Protection of Persons Exposed to Ionising Radiation for Medical and Forensic Purposes (2003)*

This Decree No. 2003-270, adopted on 24 March 2003, aims 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) and inserts new provisions into the Public Health Code (Book I, Title I, Chapter V-I, Section 6).

The health protection of persons against the dangers of ionising radiation during exposure for medical purposes is strengthened by this Decree which establishes general principles such as the principle of justification of exposure to ionising radiation and the principle of optimisation during exposure. These provisions apply to persons exposed to ionising radiation for medical purposes, whether for diagnostic or therapeutic benefit, or within a system of occupational medical surveillance or a programme of detection of a particular illness. Persons who voluntarily participate in biomedical research programmes or persons exposed during forensic procedures are also concerned.

The Decree provides for the establishment of accompanying measures of a practical nature (standards of reference, quality assurance). Guides relating to the prescription and the carrying out of acts and examinations involving exposure to ionising radiation, containing specific information for acts concerning children, pregnant women or nursing mothers, shall be established by the Minister responsible for Health.

Persons who are authorised to use ionising radiation shall receive radiation protection training from authorised bodies.

*Decree on Intervention in the Event of Emergency Radiological Situations and in the Case of Long-term Exposure (2003)*

Decree No. 2003-295, adopted on 31 March 2003, aims to set out conditions pursuant to which personnel and authorised persons can intervene in the event of an emergency linked to the failure of a nuclear installation. It aims to implement Council Directive 96/29/Euratom of 13 May 1996 laying down the 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* Nos. 58 and 61) and inserts new provisions into the Public Health Code (Book I, Title I, Chapter V-I, Section 7).

Radiological emergency situations are defined as incidents or accidents giving rise to a risk of release of radioactive materials or a level of radioactivity liable to damage public health. The Decree provides that in the event of a radiological emergency situation, the person responsible for the nuclear activity shall take the necessary nuclear and radiological safety measures, implement the on-site emergency plan where necessary and inform the competent authorities. The Prefect (*Préfet*) manages the emergency operations and informs the public.

The Decree classifies those who intervene into two groups, the first of which is composed of personnel making up the special technical, medical or health intervention teams which are set up in advance to act in the event of a radiological emergency. This group is subject to radiological control and a medical aptitude test, and the effective dose which these persons may receive is 100 mSv. The dose is increased to 300 mSv where intervention activities are designed to protect persons. The second group is made up of persons who are not within special teams but who intervene on the basis of tasks and responsibilities incumbent on them. The effective dose which persons within this group may receive is set at 10 mSv.

*Circular on the Organisation of Medical Care in the Event of a Nuclear or Radiological Accident (2002)*

This Circular of 2 May 2002 aims to revise the measures to be taken in the event of a nuclear or radiological event liable to cause victims, and to specify how urgent medical care should be organised and implemented. The former provisions which dated from September 1987 are now complemented by a national guide-book in the form of instruction sheets to the attention of those responsible.

*Order Establishing the National Reference Guide on Radiological Risks (2002)*

This Order of 20 December 2002 sets out the national reference guide in implementation of Section 52 of the Decree of 26 December 1997 on the organisation of fire and emergency services. It sets out rules of procedure and training in relation to radiological risks. It may be consulted at departmental offices of fire and emergency services.

## **Indonesia**

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

*Ordinance on the Management of Radioactive Waste (2002)*

Ordinance No. 27 of 2002 on the Management of Radioactive Waste was adopted on 13 May 2002 in implementation of the 1997 Atomic Energy Act (see *Nuclear Law Bulletin* No. 59) and published in the State Gazette No. 52/2002.

Article 3 of this Ordinance states that the management of radioactive waste shall be based on the radiation protection principles of justification, optimisation and limitation of dose. Article 4 outlines the objective of this Ordinance – to protect the safety and the health of workers, members of the public and the environment from contamination by ionising radiation emitted from radioactive waste. Radioactive waste is classified into low-, intermediate- and high-level waste, as shall be further regulated by Decree of the Chairperson of the Nuclear Energy Control Board (BAPETEN) to specify quantities and characteristics of such waste, including activity, half-life, type of radiation, chemical and physical form, toxicity and origin.

Article 7 provides that any person or entity wishing to utilise nuclear energy shall declare to BAPETEN that radioactive waste shall be returned to the country of origin or shall be submitted to the National Nuclear Energy Agency (BATAN). Article 18 prohibits storage of radioactive materials or waste of foreign origin on Indonesian territory.

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

*Ordinance on the Transport of Radioactive Materials (2002)*

Ordinance No. 26 of 2002 on the Transport of Radioactive Materials was adopted on 13 May 2002 in implementation of the 1997 Atomic Energy Act (see *Nuclear Law Bulletin* No. 59) and

published in the State Gazette No. 52/2002. This Ordinance repeals and replaces a 1975 Ordinance on the same subject (see *Nuclear Law Bulletin* No. 21).

Ordinance No. 26 sets out provisions governing the safe transport of radioactive materials in general and furthermore stipulates requirements in relation to the testing of packaging by a body to be appointed and accredited by the Nuclear Energy Control Board (BAPETEN). Workers who are directly involved in the transport of radioactive materials on a routine basis are required to pursue training in this field, to be provided by the transporter.

## **Ireland**

### ***Radiation Protection***

#### *Radiological Protection (Amendment) Act (2002)*

An Amendment to the Radiological Protection Act of 1991 (see *Nuclear Law Bulletin* Nos. 45 and 48) was adopted on 20 March 2002 as Act No. 3 of 2002. This amendment strengthens and clarifies certain important aspects of the Radiological Protection Institute of Ireland's licensing powers. In particular, the Minister for Energy is entrusted with the power of making regulations, with the consent of the Minister for Finance, in relation to the procedure for granting a licence including renewal or amendment of a licence. Such regulations may cover provisions concerning requirements for applications to be made in writing, the period within which an application for renewal or amendment should be made, the period of validity of licences, the fixing of fees, the period of time within which such fees are to be paid and the circumstances in which the Institute may retain such fees or a proportion of them. Furthermore, the Institute may recover any sum of money due as a simple contract debt in any court of competent jurisdiction.

This Amendment further provides for an additional offence under Section 40 of the 1991 Act: that of making a false or misleading statement when making an application for a licence.

This Amending Act also provides the legislative basis for a scheme of grants to assist householders with the cost of remedying high radon levels in their homes. The Institute shall administer this grant scheme, establishing a system for the inspection of any house and remediation works that are the subject of an application under this Act. Payments shall be made in respect of any house with a radon gas measurement that is greater than 200 becquerels per cubic metre. The amount of a grant to be paid to an applicant shall be one half of the costs incurred by the applicant for the remediation works, subject to a maximum grant of EUR 1 000.

The text of this legislation is available in English at the following URL:  
[www.irlgov.ie/oireachtas/frame.htm](http://www.irlgov.ie/oireachtas/frame.htm)

## Italy

### *Regime of Nuclear Installations*

#### *Regime of Radioactive Materials (including Physical Protection)*

##### *Ordinance on Urgent Measures for the Disposal of Radioactive Materials and in Relation to the Decommissioning of Nuclear Facilities (2003)*

On 7 March 2003, the Prime Minister issued Ordinance No. 3267 on urgent and extraordinary measures for the disposal of radioactive materials and to speed up the decommissioning procedures for nuclear facilities. These measures aim to increase the safety and security of nuclear materials and installations, to respond in particular to the heightened international security risk following the events of 11 September 2001.

Pursuant to the Ordinance, the President of the Nuclear Installation Management Company (*Società per la Gestione degli Impianti Nucleari* – SOGIN), the company established in 1999 to pursue the decommissioning of nuclear power stations in Italy (see *Nuclear Law Bulletin* No. 66) is given all the necessary powers (as a “delegated Commissioner”) to ensure the security of irradiated nuclear fuel and highly radioactive waste, to plan the decommissioning not only of nuclear power stations but also of research installations, and to guarantee the security of the repositories operated by the National Agency for New Technologies, Energy and the Environment (ENEA). A technical-scientific Commission established by the Ordinance will assist the President in his tasks. To the extent necessary for the purpose of the Ordinance, licences and staff belonging to ENEA will be transferred to SOGIN.

## Japan

### *General Legislation*

##### *Amendment of the Electric Utilities Industry Law and the Regulation Law (2002)*

On 11 December 2002, in the wake of a series of cases of falsification related to self-imposed inspections<sup>1</sup> at nuclear power plants operated by the Tokyo Electric Power Company (TEPCO), the Electric Utilities Industry Law and the 1957 Law for the Regulation of Nuclear Source Material, Nuclear Fuel Material and Nuclear Reactors (hereinafter referred to as “the Regulation Law” – see *Nuclear Law Bulletin* Nos. 11, 22, 24, 25, 38, 43, 56, 64 and 65) were amended to prevent recurrence of such falsifications.

The nature of the licensee’s self-imposed inspections (see *supra*) has been made mandatory and they are now legally defined as “periodical licensee’s inspections”. The new Japan Nuclear Energy

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1. Licensees are primarily responsible for ensuring safety at their NPPs and are required to confirm the integrity of equipment. Licensees conduct self-imposed inspections in order to examine conformity. The regulatory body, NISA, then conducts periodical inspections as it deems appropriate.

Safety Organisation (JNES – see *infra*) examines the licensee’s implementation of the periodical licensee’s inspection and then the Nuclear and Industrial Safety Agency (NISA) reviews the results found by the JNES. The licensee is then informed of the review results. Furthermore, more stringent inspections are to be carried out. In addition to the current inspections (pre-service, periodical and safety inspections) carried out by the NISA, the JNES is now responsible for additional reviews. In addition, the quality assurance system of licensees now comes within the scope of inspections. These amendments will enter into force on 1 October 2003.

Licensees are required to carry out an “integrity evaluation” of their facilities in order to identify defects such as cracks or fissures, and they must record, maintain and report the results of this evaluation. Evaluation methods are to be prepared by the government. This amendment shall also enter into force on 1 October 2003.

More stringent penalties have been established for violation of the regulations contained in both the Electric Utilities Industry Law and the Regulation Law. Stricter sanctions have been introduced in respect of serious violations including refusal to comply with standards, evading governmental inspection and ignoring requirements to submit reports.

The table below provides examples of these revised penalties which entered into force on 17 March 2003:

<i>Offence</i>	<i>Before Amendment</i>	<i>After Amendment</i>
Violation of orders to comply with technical standards	Max. fine of JPY 3 million	Max. corporate fine of JPY 300 million Additional max. of 3 years imprisonment
Violation of orders to cease operations	Max. fine of JPY 3 million Max. of 3 years imprisonment	Max. corporate fine of JPY 300 million
Evasion or obstruction of periodical inspections	Max. fine of JPY 0.3 million	Max. fine of JPY 1 million Max. of 1 year imprisonment Additional max. corporate fine of JPY 100 million
Evasion or obstruction of safety inspections	Max. fine of JPY 0.3 million	Max. fine of JPY 1 million Max. of 1 year imprisonment Additional max. corporate fine of JPY 100 million

An “allegation committee” has also been established within the NISA to facilitate the reporting of and investigation into allegations of misconduct. This committee is composed of external independent experts. Furthermore, the Nuclear Safety Commission (NSC) is entrusted with the authority to investigate allegations and to advise the management of the administrative agencies involved on the measures to be taken. The scope of the NSC’s “double check” system has also been

enlarged to include matters other than the safety review of new nuclear power plants. The Minister of Economy, Trade and Industry (METI) and other competent ministries are required to submit quarterly reports to the NSC on the progress of the construction permit, pre-service inspections, periodic inspections, safety inspections etc. of nuclear power plants and other nuclear facilities. They are then required to take the NSC's opinion into account in taking the necessary measures for safety assurance. These amendments entered into force on 1 April 2003.

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

#### *Establishment of the Japan Nuclear Energy Safety Organisation (2002)*

On 11 December 2002, a Law establishing the Japan Nuclear Energy Safety Organisation (JNES) was adopted by the Japanese parliament. The decision to establish an independent administrative organisation was made by the cabinet council in March 2002 to ensure more efficient and proper nuclear safety regulatory activities.

The JNES will be responsible for strengthening in general the manner in which nuclear power safety regulations are applied. Its tasks will be as follows:

- pre-service and periodical inspection of NPPs pursuant to the Electric Utilities Industry Law and the 1957 Law for the Regulation of Nuclear Source Material, Nuclear Fuel Material and Nuclear Reactors as amended (see *Nuclear Law Bulletin* Nos. 11, 22, 24, 25, 38, 43, 56, 64 and 65);
- periodical inspection of safety management pursuant to the above-mentioned Laws;
- analysis and evaluation of design safety;
- investigation into, testing of and research pertaining to the safe use of nuclear power; and
- prevention and mitigation of nuclear emergencies.

## **Former Yugoslav Republic of Macedonia**

### ***General Legislation***

#### *Law on Protection against Ionising Radiation and Radiation Safety (2002)*

The Law on Protection against Ionising Radiation and Radiation Safety was published in the Official Gazette on 4 July 2002 and entered into force on 12 July 2002. It repeals the Law on Protection against Ionising Radiation of 1991. The main objectives of the Law are to create a legal framework to govern state control and regulation of the use of ionising radiation sources and to protect the public and the environment from the harmful effects of ionising radiation.

The Law first of all establishes the responsibilities of the competent authorities in the field of radiation safety. A Department for Radiation Safety is established to carry out managerial and expert activities in the field of radiation protection. It will be responsible for, *inter alia*:

1. issuing licences for the import, export, distribution, transfer, transport, storage, disposal and maintenance of ionising radiation sources;
2. establishing intervention levels and other conditions governing radiation protection;
3. establishing exemption levels for ionising radiation sources with low activity;
4. carrying out inspections;
5. keeping a National Register of ionising radiation sources and of persons occupationally exposed to ionising radiation;
6. organising training of radiation workers and their supervisors;
7. carrying out research in the radiation protection field;
8. informing the public of radiation protection issues, intervening in the event of an emergency;
9. putting forward the National Action Plan on protection of the public against ionising radiation.

The Department for Radiation Safety shall be managed by a Director who shall be directly responsible to the government. The Department shall also establish a Commission for Radiation Safety, which will act as an advisory body for specific issues in the area of ionising radiation protection. This Commission will be composed of representatives of the different ministries as well as representatives of scientific and expert institutions and organisations in the radiation field.

The Institute for Health Protection is responsible for, *inter alia*, assessment of occupational exposure to ionising radiation; medical control of occupationally exposed workers; monitoring the levels of radioactive contamination in the environment and participating in the implementation of training on safe operation and management of ionising radiation sources.

A licence issued by the Department for Radiation Safety is necessary for all activities involving ionising radiation. The Law establishes requirements which must be met by legal entities performing activities involving the use of ionising radiation in relation to qualifications and training of personnel, equipment used, quality assurance, the security of their installations and emergency planning.

The Law is based on the principles of justification, optimisation and dose limitation and sets out the main principles for the protection of workers exposed to radiation (dosimetric control and health control of the personnel). Dose limits for the exposure of workers and the population to ionising radiation will be established by the Department for Radiation Safety. The Law also sets out the conditions governing the application of medical radiological procedures, including justification and optimisation of practices and the duties and training of medical personnel.

The Law establishes a system of registration, accounting and control of ionising radiation sources. The licence-holder is responsible for:

1. providing protection and training for workers exposed to ionising radiation, for the population and the persons exposed during a medical examination;
2. registering the ionising radiation sources including technical characteristics and specifications on safety and safe operation;
3. establishing an emergency plan in case of accident, for the protection of the population and exposed workers; and
4. accounting and control of the ionising radiation sources.

They are furthermore responsible for collection, storage, conditioning, transport and disposal of the radioactive waste they produce. Until the location for the storage facility for disposal of radioactive waste has been designated, radioactive waste shall be stored on the premises of the licence-holder.

Finally the Law contains rules concerning inspections, quality assurance and penalties. A National Action Plan for the protection of the population against the harmful effects of ionising radiation in case of radiation accident will be established.

## **Romania**

### ***General Legislation***

#### *Ordinance on the Use of Nuclear Energy Exclusively for Peaceful Purposes (2003)*

Ordinance No. 7 on the Use of Nuclear Energy Exclusively for Peaceful Purposes was adopted on 30 January 2003, published in the Official Gazette (*Monitorul Oficial*, Part I, No. 59) on 1 February 2003 and entered into force on the same date. Its objective is stated in Article 2 to be the promotion and organisation of activities in the nuclear field.

An exhaustive list of activities pertaining to the nuclear field, and to which the Ordinance applies, are listed in Article 3, including the prospection and mining of uranium ore; the construction, operation and decommissioning etc. of nuclear installations; research and development activities in the nuclear energy field; production, use, transport, import/export etc. of radioactive materials or radiation sources; treatment, processing, storage and disposal of radioactive waste; nuclear safety, quality assurance and radiation protection activities; nuclear emergency management; and training and education of workers and information of the public. Such activities are deemed to be “activities of national interest” and therefore may only be carried out by economic entities licensed in accordance with the applicable legislation.

Chapter III of the Ordinance provides that nuclear activities shall be carried out in accordance with the National Nuclear Plan (NNP), to be drawn up by the National Atomic Energy Agency (NAEA), a specialised department within the Ministry of Education and Research, following consultations with other ministries, central and local government bodies, economic entities operating in the nuclear field and professional associations in the sector. The NAEA is furthermore (Chapter IV) responsible for the promotion of nuclear activities in Romania, based on the NNP, and for international co-operation activities in the nuclear field.

Chapter V provides that the National Commission for the Control of Nuclear Activities (CNCAN), the national authority responsible for the regulation, licensing and control of nuclear activities carried out in Romania, is once again placed under the authority of the Ministry of Waters and Environmental Protection.

The Ordinance further provides (Chapter VI) for the establishment of a National Nuclear Energy Council (NNEC) to harmonise nuclear policies and to monitor the implementation of the NNP. The Council shall be directly responsible to the Prime Minister and shall be composed of representatives of the various ministries having responsibilities in the nuclear field. The NNEC shall be responsible, *inter alia*, for the organisational, technical and financial management of the NNP, supporting research and development activities; monitoring the integration of nuclear applications into the economic and social bases of society; endorsing strategies for training of personnel; examining CNCAN reports on nuclear security, physical protection, liability and insurance; examining and suggesting amendments to legislation and monitoring compliance with international obligations. The NAEA and the CNCAN shall provide the Secretariat for the NNEC.

Finally, Chapter VII provides that nuclear activities in Romania are to be financed from budgetary funds, funds generated by the production and service sectors in the nuclear field, assets provided by economic entities, whether state-owned, private or mixed, funds generated by participation in international projects and any other funds as provided by law.

This Ordinance repeals those provisions of Law No. 61/1974 with regard to nuclear activities carried out in Romania and Law No. 6/1982 with regard to quality assurance for nuclear facilities and installations which were not already repealed by the 1996 Law on the Safe Conduct of Nuclear Activities (see *Nuclear Law Bulletin* Nos. 59, 61 and 68; the text of this Law was reproduced in the Supplement to *NLB* No. 59).

### ***Radiation Protection***

#### *Orders Implementing European Legislation in the Field of Radiation Protection (2002)*

A number of orders have been adopted to further implement European legislation in the field of radiation protection (see *Nuclear Law Bulletin* No. 69). The implementation of Council Directive 96/29/Euratom of 13 May 1996 laying down the 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 of the Family of Order No. 1032/2002 of 20 December 2002 on Completion of the Norms on Medical Surveillance of Occupationally Exposed Workers and the adoption by the President of the National Commission for the Control of Nuclear Activities (CNCAN) of Order No. 180/2002 on Norms on Individual Dosimetry on 5 September 2002 and Order No. 202/2002 on 15 October 2002 on the Issue of Permits to Exercise Nuclear Activities and on Designation of Radiation Protection Qualified Experts.

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) was implemented in Romania by Joint Order No. 79/2002 of the President of the CNCAN of 14 March 2002 and Order No. 285/2002 of 19 April 2002 of the Minister of Health and of the Family on Norms on Radiation Protection of Individuals in Case of Medical Exposure to Ionising Radiation.

### *Norms on Radiological Safety (2002)*

Order No. 228/2002 on the Procedures for the Acceptance of External Undertakings was adopted by the President of the CNCAN with a view to implementing Council Directive 90/641/Euratom of 4 December 1990 on the Operational Protection of Outside Workers Exposed to the Risk of Ionising Radiation during their Activities in Controlled Areas (see *Nuclear Law Bulletin* No. 47).

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

#### *Ordinance on the Management of Spent Nuclear Fuel and Radioactive Waste, including Final Disposal (2003)*

Ordinance No. 11 on the Management of Spent Nuclear Fuel and Radioactive Waste, including Final Disposal, was adopted on 30 January 2003, published in the Official Gazette (*Monitorul Oficial*, Part I, No. 61) on 1 February 2003 and entered into force on the same date. It aims to regulate the management of spent fuel and radioactive waste in such a manner as to guarantee the safety of the public, environment and property and to respect the rights of future generations. It further aims to set out provisions governing the financing of such activities over the life cycle of nuclear installations. The Ordinance applies to waste and spent fuel resulting from both power and research reactors and from industrial, agricultural and medical activities, with the exception of naturally radioactive waste. It subscribes to the polluter pays principle, confirms the exclusive liability of the generator of radioactive waste and provides that management methods must not put peoples' health or the environment at risk. The most effective methods available that do not involve excessive costs should be employed.

Chapter II provides that licensees are responsible for the management and final disposal of spent nuclear fuel and radioactive waste for the entire life cycle of their nuclear installation, including decommissioning. Nation-wide co-ordination of such activities shall be ensured by compliance with the national strategies on decommissioning and spent fuel and radioactive waste management. A National Agency for Radioactive Waste, under the authority of the Ministry of Industry and Resources, is established to supervise the nation-wide co-ordination of such activities. The responsibilities of this Agency are set out in detail in Article 15 of the Ordinance. Its activities shall be financed by annual direct contributions of licensees as set out by Government Decision, donations or financial support provided by natural or legal persons, national or international organisations and any other sources of income approved by the Government.

Licensees are required to report annually to the Agency on the quantities and types of waste and fuel generated at their installations.

Finally, the Ordinance refers to the 1997 Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (see *Nuclear Law Bulletin* Nos. 60, 67 and 69) to which Romania is a Party and reiterates the prohibition of import of spent nuclear fuel or radioactive waste for the purpose of final disposal.

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

### *Norms on International Shipments of Radioactive Waste Involving Romanian Territory (2002)*

Order No. 183/2002 of 6 September 2002 of the President of the CNCAN aims to implement Council Directive 92/3/Euratom of 3 February 1992 on Control of Radioactive Waste Shipments (see *Nuclear Law Bulletin* No. 49) and Commission Decision 93/552/Euratom of 1 October 1993 establishing the standard document for the supervision and control of shipments of radioactive waste referred to in Council Directive 92/3/Euratom. It establishes the responsibilities of the holder, consignee and competent authorities involved in international shipments.

### *Norms on Transport of Radioactive Materials (2002)*

Order No. 222/2002 of the President of the CNCAN on Authorisations and Procedures establishes the regulatory requirements for the transport of radioactive waste involving the Romanian territory.

## ***Food Irradiation***

### *Norms on Foodstuffs and Feeding Stuffs Contaminated by Radioactivity Following a Nuclear Accident or Radiological Emergency (2002)*

Order No. 91 of 14 March 2002 of the President of the CNCAN, Order No. 856 of 23 November 2001 of the Minister of Health and of the Family and Order No. 112 of 12 March 2002 of the Minister of Agriculture, Food and Forests aim to implement European legislation on the radioactive contamination of foodstuffs and feedingstuffs following a nuclear incident. The monitoring of the imported agricultural products is performed by the sanitary veterinary laboratories network. Dairy products and certain other products which do not comply with the maximum acceptance levels may not be imported. Data regarding the samples analysed and the values of the radioactive contamination detected in agricultural products are reported to the Institute of Hygiene and Veterinary Public Health.

### *Norms on Foodstuffs and Food Ingredients Treated by Ionising Radiation (2002)*

Order No. 90 adopted on 14 March 2002 by the President of the CNCAN, Order No. 855 adopted on 23 November 2001 by the Ministry of Health and of the Family and Order No. 98 adopted on 4 March 2002 by the Ministry of Agriculture, Food and Forests aim to implement Directive 1999/2/EC of 22 February 1999 of the European Parliament and of the Council on the approximation of the laws of the Member States concerning foods and food ingredients treated with ionising radiation and Directive 1999/3/EC of 22 February 1999 of the European Parliament and of the Council on the establishment of a Community list of foods and food ingredients treated with ionising radiation (see *Nuclear Law Bulletin* No. 67).

## **Russian Federation**

### ***General Legislation***

#### *Federal Law on Technical Regulation (2002)*

This Law was adopted by the Duma on 15 December 2002 and promulgated by the President on 27 December 2002. It was published in January 2003 and shall enter into force six months thereafter.

The adoption of this Law which is part of a complete re-modelling of the regime of economic activities in the Russian Federation, aims to reorganise and unify procedures by which “technical regulations” are drafted, adopted and applied (Article 3). The general objective of these regulations is to protect public health and private and public property, to preserve the environment and to prevent acts which may cause damage to consumers (Article 6). The activities covered are those which pose a risk for the above-mentioned interests and they include the safe use of nuclear energy and ionising radiation and the safety of irradiation activities (Article 7). These regulations should not however interfere with the freedom necessary to pursue economic activities any more than is strictly necessary.

The Act distinguishes between general technical regulations and those which have a special character. Nuclear and ionising radiation safety are included amongst the former.

The Act regulates in detail the conditions pursuant to which these regulations are drafted, adopted and controlled, those which determine how products are made available on the market, controls by State bodies, imports, product liability, the objective of standardisation, the information of users etc. These provisions do not treat the nuclear sector any differently.

It is generally accepted that this new legislation will substantially affect this powers exercised in the field of regulation and control of nuclear activities by the Federal Agency for Nuclear and Radiation Safety (*Gosatomnadzor*). It will therefore require that *Gosatomnadzor* draft new technical regulations in this field, to conform to the provisions of the Act. A period of seven years is established by the Act for the preparation of these new technical regulations. In the meantime, technical control in the field of nuclear safety and radiation will continue to be exercised on the basis of the 1995 Act on the Use of Atomic Energy (see *Nuclear Law Bulletin* No. 58; the text of this Law is reproduced in the Supplement to *NLB* No. 57) as amended (see *Nuclear Law Bulletin* No. 68) and the 1997 Act on the Radiation Safety of the Public (Article 46) (see *Nuclear Law Bulletin* No. 59).

## **Slovenia**

### ***General Legislation***

#### *Amendment to the Act on Protection Against Ionising Radiation and Nuclear Safety (2003)*

An Act amending the 2002 Act on Protection against Ionising Radiation and Nuclear Safety (see *Nuclear Law Bulletin* No. 70; the text of this Act is available on the Web site of the NEA at [www.nea.fr/html/law/nlb/index.html](http://www.nea.fr/html/law/nlb/index.html)) was adopted on 25 February 2003.

The objective of this amendment is to implement Article 5(2) of the draft proposal for an EU Council Directive on the management of spent nuclear fuel and radioactive waste. It provides that the Slovenian government shall prepare an amendment of the national programme for the protection of the environment as regards radioactive waste and spent fuel management by the end of 2004 and submit it to the Parliament for adoption. The site for the establishment of a low- and intermediate-level waste repository must be approved by 2008 and it is to be licensed for operation by 2013.

## **Sweden**

### ***Radiation Protection***

#### *Regulations on the Planning of Radiation Protection Issues Before and During the Decommissioning of NPPs (2002)*

New Regulations (referenced SSI FS 2002:4) on the planning of radiation protection issues before and during the decommissioning of nuclear power plants were issued by the Swedish Radiation Protection Institute (*Statens strålskyddsinstitut* – SSI) on 29 October 2002. These Regulations, which establish requirements that apply both during operation and after final shutdown, aim to ensure that radiation doses received by workers and releases of radioactivity into the environment during decommissioning are in accordance with the ALARA principle and are within specified limits.

These Regulations are applicable to all nuclear facilities, except the permanent installations which will remain in radioactive waste repositories after closure. “Decommissioning” is defined to mean all actions taken by the licensee after final shutdown in order to reduce the amount of radioactive substances in the land and building structures to levels that permit release of the site and any remaining buildings. “Release of site” is defined in turn to mean a decision by the SSI that, from a radiation protection point of view, there are no further restrictions on the use of land and any remaining buildings. “Final shutdown” is used to describe a facility in which the main operations have ceased and there is no intention of resuming them.

Radiation protection issues related to future decommissioning are to be considered during construction of a new nuclear facility or during reconstruction or modification of an existing facility. For nuclear facilities in operation, the main requirement of the Regulations is that the licence-holder shall have a preliminary plan for future decommissioning of the facility. The plan shall be kept up-to-date and reviewed in connection with any changes in the facility. The Regulations do not prescribe how or when decommissioning shall be performed, but rather they require that the licensee investigate different possible options in order to make an informed choice.

When a facility has been finally shut down, the Regulations require that the licence-holder present an overall description of the decommissioning plan covering methods, time-scales and project goals. The description shall be submitted to the SSI within one year of final shutdown, together with an overall description of the radiological consequences of the chosen decommissioning option. The description is to cover probable radiation doses to personnel and releases of radioactive substances to the environment, activities that can lead to unplanned events, and the expected amounts and flow of radioactive material.

With regard to dismantling and demolition after final shutdown, the Regulations require that the licence-holder shall submit an overall description of the work to the SSI at least four months before

dismantling is initiated. The description shall essentially be a detailed plan of the foreseen activities, covering the same issues as the pre-planning. The SSI will review the plan and, if required, impose additional radiation protection conditions.

After decommissioning, the licensee is required to prove that the site is fit to be released from regulatory control. Therefore the Regulations require that the licence-holder document all the relevant information during decommissioning, including results from measurements and calculations and information concerning any decisions and actions taken that have an influence on the distribution and amount of radioactive substances remaining.

The text of these Regulations is available in English at the following URL. They will enter into force on 1 January 2004. [www.ssi.se/forfattning/pdf\\_eng/2002\\_4e.pdf](http://www.ssi.se/forfattning/pdf_eng/2002_4e.pdf)

## Switzerland

### *General Legislation*

#### *Federal Act on Nuclear Energy (2003)\**

On 21 March 2003, the Federal Assembly (Swiss Parliament) adopted the new Federal Act on Nuclear Energy. When it enters into force, the new Act shall replace the existing 1959 Atomic Act as amended (see *Nuclear Law Bulletin* Nos. 16, 28, 29, 31, 37, 38, 52, 53, 54 and 55). It was necessary to revise the Swiss atomic energy legislation in order to regroup numerous elements which were scattered across various ordinances of the Federal Council (decommissioning of nuclear installations, disposal of radioactive waste and the financing of such disposal) and also to incorporate new provisions (obligations of the operators of nuclear installations, adaptation of licensing procedures and reprocessing of spent nuclear fuel). The revision exercise already commenced in the 1970s. It was suspended on numerous occasions due to the politically sensitive nature of the use of nuclear energy in this country.

The most important characteristics of the new Act are as follows:

- The nuclear energy option is retained: the construction of new nuclear power plants remains possible as long as the most recent technologies are used. Licences to operate plants shall no longer be limited in duration and the operation of existing plants shall continue as long as the safety rules are observed.
- A general authorisation (decision in principle) shall be required for new nuclear installations (plants and underground radioactive waste repositories). It shall be issued by Parliament and may be subject to referendum (optional).
- The cantons where nuclear sites are situated, those in the vicinity and neighbouring States shall be consulted during the preparatory phase for a general authorisation. The

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\* This note was kindly provided by Messrs. Renato Tami and Sandro Daïna of the Legal Section of the Federal Energy Office in Switzerland.

requirement to obtain the approval of the canton itself has not been retained by the Parliament.

- A ten-year moratorium on the reprocessing of spent nuclear fuel is established as from 1 July 2006. Until then, operators may continue to honour their contracts with French and English reprocessing firms. The ten-year moratorium may be extended for a further period of ten years by the Parliament. The government proposal to simply ban reprocessing generally was rejected by the Parliament.
- The disposal of radioactive waste is to be based on a new concept established by a group of experts. Following a long period of observation of waste stored in an underground repository, such waste is to be sealed and responsibility for it will be assumed by the Confederation (the State). Until it is sealed, the associated costs will be incurred by the operators of plants. They are required to present a waste disposal plan to the Government setting out a timetable, technical details in relation to the various stages and a method of financing.
- Financial cover for the decommissioning of installations and the disposal of radioactive waste. The Decommissioning Fund should ensure that after 40 years of operation of a nuclear installation sufficient funds should be available to finance decommissioning operations (estimated at 1.5 billion Swiss francs (CHF) for all of these operations). The Fund for the Disposal of Spent Nuclear Fuel is required to cover 2/3 of the costs i.e. CHF 13 billion.
- Co-ordination of licensing procedures: the new Act introduces the principle of co-ordination and simplification of licensing procedures. Henceforth there shall only be one formal licence issued to the operator. There will be no more communal or cantonal licences. The legislation of the cantons and the communes are to be taken into account during the issue of the federal decision.
- Possibility to appeal federal licences before the Appeal Commission of the Department of the Environment, Transport, Energy and Communication (first instance) and then before the Federal Court (second and last instance).

The entry into force of the Act has not yet been established. It will depend on the result of the referendum on 18 May 2003 on the two constitutional initiatives “Moratorium plus” (“*Moratoire plus*”) and “Phase-out Nuclear” (“*Sortir du nucléaire*”). The “Moratorium plus” initiative concerns the extension of the moratorium on the construction of nuclear power plants and the limitation of the nuclear risk and the “Phase-out nuclear” initiative represents a major turning-point in the energy field by proposing the gradual decommissioning of all nuclear power plants. Further information on these two movements are available in French on the site of the Federal Energy Office at the following URL: [www.suisse-energie.ch/bfe/fr/energiemaerkte/kernenergie/unterseite10/index.html](http://www.suisse-energie.ch/bfe/fr/energiemaerkte/kernenergie/unterseite10/index.html).

If these proposals are rejected, the Act shall be put forward for an optional referendum and published in its current form if a vote of the people is not called for. If one or both of these initiatives are accepted, the Act shall be returned to Parliament to be adapted to correspond to the objectives of the initiatives.

The text of the Act is available on the Web in French at the following URL: [www.admin.ch/ch/f/ff/2001/2692.pdf](http://www.admin.ch/ch/f/ff/2001/2692.pdf)

## ***Third Party Liability***

### *Amendment of the Ordinance on Nuclear Third Party Liability (2002)\**

By decision of 29 November 2002, the Swiss Federal Council (government) amended the 1983 Ordinance on Nuclear Third Party Liability as amended (RS 732.441 – see *Nuclear Law Bulletin* Nos. 33, 37, 59 and 67). The amendment entered into force on 1 January 2003.

The 1983 Act on Nuclear Third Party Liability (RS 732.44 – see *Nuclear Law Bulletin* Nos. 23, 25, 29, 31, 33 and 49; the text of this Act is reproduced in the Supplement to *NLB* 32) provides in Section 11(3) that the Federal Council shall identify those risks which the private insurer may decide not to cover for the injured party. These risks are set out in Section 4(1) of the 1983 Ordinance on Nuclear Third Party Liability. They include, *inter alia*, extraordinary natural phenomena and acts of war. Terrorism is not specifically mentioned. Until now, terrorism was also considered as a classical risk which could not be excluded by the private insurer. It is therefore completely covered today up to 1 billion Swiss francs (CHF)<sup>1</sup> (plus CHF 100 million for interest and procedural costs).

The general situation on the insurance market changed dramatically after the events of 11 September 2001. The nuclear insurance branch was no exception to this rule. In September 2002, the Swiss Nuclear Insurance Pool informed the Federal Energy Office of these developments. The Pool decided to modify, by 1 January 2003, private policies covering nuclear installations on Swiss territory. From now on, cover for damage due to terrorist acts shall be limited to CHF 500 million (plus CHF 50 million for interest and procedural costs). This modification to private policies led to an amendment of Sections 4 and 5 of the Ordinance on Nuclear Third Party Liability.

Private insurers may exclude acts of war from the cover they propose. This is currently the case. This risk is assumed by the Confederation within the limits of the law. A terrorist act is not assimilated to an act of war, contrary to the claims of operators. Currently, it is entirely covered by private insurers. Following a new appraisal of the terrorist risk, insurers arrived at the conclusion that they could only offer cover up to CHF 500 million. According to the terms of the Act on Nuclear Third Party Liability, the Confederation is responsible for assuming the risk beyond the CHF 500 million covered by the insurers up to CHF 1 billion. In order to cover such a risk, the Confederation charges a premium to all operators of nuclear installations. This situation results in an increase of the premiums (federal and private) paid by operators.

In order to adapt the Ordinance on Nuclear Third Party Liability, it was first necessary to amend Section 4 by adding an extra sentence to the first subparagraph. This sentence adds a new risk, that of terrorism, which is only partially covered by private insurance. Therefore, the first CHF 500 million of nuclear damage caused by a terrorist act is covered by the private insurer of the operator. To this sum can be added CHF 50 million for interest and procedural costs. However, the damage between CHF 500 million and CHF 1 billion now falls to be paid by the Confederation in accordance with Sections 11 and 12 of the Act on Nuclear Third Party Liability.

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\* This note was kindly provided by Messrs. Renato Tami and Sandro Daïna of the Legal Section of the Federal Energy Office in Switzerland.

1. This corresponded at the end of April 2003 to approximately 663.9 million EUR.

Section 14 of the Act on Nuclear Third Party Liability allows the Confederation to charge the operators of nuclear installations insurance premiums. These premiums are lodged to the Fund for Nuclear Damage (*Nuklearschadenfonds*) whose assets amounted to CHF 290 million at 31 December 2001. These federal premiums are established in Section 5(1) of the Ordinance on Nuclear Third Party Liability.

Given that the Confederation is responsible, since 1 January 2003, for the coverage of part of the terrorist risk (between CHF 500 million and CHF 1 billion), it is natural that the federal premiums be increased. This increase is based on the raise in premiums for private insurance, and balanced by the fact that, in insurance, that proportion of the premium which is charged for higher coverage (second tier) is lower than the premium paid for basic cover (first tier).

The text of this Ordinance is available in French on the Web at the following URL: [www.admin.ch/ch/f/as/2002/4210.pdf](http://www.admin.ch/ch/f/as/2002/4210.pdf)

## **United Kingdom**

### ***Regime of Radioactive Materials (including Physical Protection)***

#### *Nuclear Industries Security Regulations (2003)*

The Nuclear Industries Security Regulations were laid before Parliament on 28 February 2003 in order to consolidate and upgrade security regulations of the civil nuclear industry. They include provisions on the security of nuclear premises, the security of transport of nuclear materials and the security of sensitive nuclear information.

Nuclear premises are defined in Part 1 to mean a nuclear site on which nuclear or other radioactive material is used or stored, premises on a nuclear site and used by someone other than the site licence-holder to use or store nuclear or other radioactive materials, and any other premises where nuclear material is used or stored, with the exception of temporary storage of such material during the course of or incidental to its transport. Part 2 of the Regulations provides that there must be an approved security plan for each nuclear premises, describing *inter alia* the standards, procedures and arrangements relating to the investigation and assessment of the suitability of the relevant personnel, the receipt and despatch of nuclear material, the manner in which the nuclear premises are to be policed and guarded and the steps to be taken by the responsible person in the event of unauthorised entry, incidents involving explosives or firearms, theft or attempted theft or threat to carry out any of the aforementioned.

Requirements relating to the transport of nuclear materials by approved carriers are set out in Part 3 of these Regulations. The Secretary of State is responsible for issuing or revoking such approvals of carriers. A carrier applying for approval must submit a transport security statement with which he is then obliged to comply during transport operations.

Part 4 describes the obligations which must be respected by persons coming into contact with sensitive nuclear information in relation to the maintenance of security standards, procedures and arrangements to minimise the risk of loss, theft or unauthorised disclosure of such information.

The Regulations entered into force on 22 March 2003 with the exception of the transport provisions which shall enter into force on 22 September 2003.