

# NATIONAL LEGISLATIVE AND REGULATORY ACTIVITIES

## **Australia**

### *Protection of the Environment*

#### *Environment Protection and Biodiversity Conservation Act and Regulations (1999-2000)*

The Environment Protection and Biodiversity Conservation Act (No. 91), adopted in 1999 and administered by the Commonwealth, establishes requirements for environmental impact assessment procedures in relation to seven matters of national environmental significance. One of these matters is the protection of the environment from “nuclear actions”. Under Section 22 of the Act, “a nuclear action” includes, *inter alia*, mining or milling uranium ore, transporting spent nuclear fuel, and establishing, significantly modifying, decommissioning or rehabilitating a research reactor. The Environment Protection and Biodiversity Conservation Regulations, issued on 5 July 2000 to implement the Act, define nuclear actions and installations by setting out the activity levels beyond which certain actions or installations are considered as nuclear actions or installations.

Under the Act, the proponent of a nuclear action must refer the proposal to the Commonwealth Minister for the Environment and Heritage who determines whether an environmental impact assessment is required, and if so, the level of the assessment. The proponent must not take the action unless it has been approved by the Minister, subject to any conditions placed on the approval. Section 140A of the Act specifically prohibits the Minister from approving actions involving the construction or operation of a nuclear fuel fabrication plant, a nuclear power plant, an enrichment plant, or a reprocessing facility.

Each of the Australian States and Territories has also enacted environmental impact assessment legislation; thus Section 45 of the Act provides for the conclusion of a bilateral agreement between the Commonwealth and any State or Territory to minimise the duplication of environmental assessment and approval procedures through Commonwealth accreditation of the State or Territory procedure (or vice versa).

## **Bulgaria**

### *Radiation Protection*

#### *Basic Standards for Radiation Protection (2000)*

These Standards were adopted by Decision No. 5 of the Council of Ministers on 10 January 2001 (Official Gazette of 16 January 2001). They take into account 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 of ionising radiation (see *Nuclear Law Bulletin* No. 58), and the 1996 IAEA Basic Safety Standards for Protection against Ionising Radiation and for the Safety of Radiation Sources.

## **France**

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

#### *Decree on the Standard Tax Charged on Polluting Activities Due from Operators of Installations Classified for Environmental Protection Purposes (2000)*

This Decree No. 2000-1349 of 26 December 2000 was adopted in implementation of Sections 266, 6th addition (I, 8, b) and 266, 9<sup>th</sup> addition-8 of the Customs Code, which govern the standard tax on polluting activities due from operators of facilities where certain installations are subject to licensing under the legislation on installations classified for environmental protection purposes. The Decree sets out in an Annex a list of activities which pose particular risks to the environment, whether due to the nature or the volume of the activity. Each activity is attributed with a multiplication coefficient used to determine the amount of tax to be paid.

Facilities subject to these provisions include installations using radioactive substances as described in the following categories of installations classified for environmental protection purposes:

- 1710 – Preparation, manufacture, transformation and conditioning of radioactive substances, in the form of sealed or unsealed sources, which are not in compliance with the standards NF M 61-002 and NF M 61-003;
- 1711 – Deposit or storage of radioactive substances, in the form of sealed or unsealed sources, which are not in compliance with the standards NF M 61-002 and NF M 61-003;
- 1720 – Use, deposit and storage of radioactive substances, in the form of sealed sources, which are in compliance with the standards NF M 61-002 and NF M 61-003;
- 1721 – Installations using mobile equipment containing radioactive substances, in the form of sealed sources, which are in compliance with the standards NF M 61-002 and NF M 61 003.

The multiplication coefficient attributed to these activities varies from one to three depending on the total activity of the radioactive material used.

The following Decrees are repealed:

- Decree No. 72-1240 of 29 December 1972 establishing the Method of Collecting an Annual Tax from Certain Installations Classified as Dangerous, Insalubrious or Posing a Risk;
- Decree No. 73-361 of 23 March 1973 establishing the Method of Collecting a Standard Tax from Installations Classified as Dangerous, Insalubrious or Posing a Risk;

- Decree No. 93-1411 of 29 December 1993 setting out the List of Activities Subject to an Annual Tax Applicable to Certain Installations Classified for Environmental Protection Purposes.

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

#### *Amendment of the Orders on the Transport of Dangerous Goods by Road and by Rail (2000)*

The Orders of 5 and 6 December 1996 on the Transport of Dangerous Goods by Road and Rail respectively (referred to as the ADR and RID Orders) were again amended by Orders of 11 December 2000.

The principal amendments introduced into the ADR Order cover:

- the transport of waste from medical activities posing a risk of infection, or those assimilated to Category 6.2 (amendment of Sections 1-6, 11-2, introduction of a new Section 20 which takes effect as of 1 July 2001);
- the possibility for companies which have just recently commenced transport activities, to carry out under certain conditions the transport operations described in Section 25-1 (including the transport of radioactive materials) for a twelve-month period without holding a quality control certificate (Section 25-4);
- duration of basic training (Section 51-4);
- recipients designed for the transport of refrigerated liquefied gas (Section 60-5) and cisterns (Section 60-6).

The amendments made to the RID Order mainly concern the limits to parking time for the railway carriages (Section 17). To this effect, it is specifically stated that the parking of intermodal transport units carrying industrial packages, Category B(U) or B(M) type packages or Class 7 fissile material, is to be governed by specific provisions, as set out by the Ministers for Industry and the Environment.

## **Georgia**

### ***General Legislation***

#### *Law on Nuclear and Radiation Safety (1998)*

This Law was adopted on 30 October 1998 and entered into force on 1 January 1999. It aims to protect the public and the environment from the harmful effects of ionising radiation. Under the Law, uses of nuclear energy are restricted to peaceful purposes. Consequently, the export, import, transit, and re-export of nuclear weapons and other nuclear explosive devices is prohibited, as is their production, study, testing and possession. It is similarly prohibited to construct and operate nuclear facilities with a capacity of over 5 MWe and to import radioactive waste into Georgia.

The Law sets out the following basic principles:

- the use of nuclear energy, nuclear material and any other ionising radiation source must not result in negative effects on public health or cause damage to the environment and to property;
- a licensee is required to compensate nuclear damage caused to human health, property and the environment;
- the physical protection of nuclear material, radioactive substances, know-how and related documentation must be ensured;
- emergency planning must be put in place;
- information on radioactive contamination of the environment, accidents or other emergencies must be accessible to the public;
- the principles of standardisation, justification and optimisation when using nuclear energy as well as minimisation of the negative effects of radioactive waste must be complied with;
- following a radiation accident, restoration measures must be taken.

The Law sets out the functions of various competent bodies in the nuclear and radiation safety field, but vests the Ministry for Protection of the Environment and Natural Resources with primary responsibility for protecting the environment and natural resources from the effects of radiation, ecological safety and nuclear and radiation-related activities. The Ministry is required, *inter alia*, to regulate nuclear and radiation safety; supervise physical protection systems; set up and monitor an accounting system and a state inventory of nuclear material, radioactive substances and other ionising radiation sources; establish emergency response plans; issue, suspend, and revoke licences for nuclear and radiation-related activities; and monitor radiation levels in the environment. To do so the Ministry has the right to inspect and monitor nuclear and radiation-related activities and to carry out any measurements required for their proper supervision.

The Law also provides for a licensing regime for nuclear and radiation-related activities. Licences for the construction, modification and operation of nuclear and radiation facilities include requirements for nuclear and radiation safety, on-site pre-treatment of radioactive waste or transport of such waste to a storage facility, and dismantling of the plant, equipment and instruments used at such facilities. Safety requirements cover siting, design, construction, and modification of the facilities. Construction and modification of facilities are subject to a feasibility study as well as a state expert appraisal of the project's safety. During the operation of nuclear and radiation facilities, the licensee is required to ensure safe working conditions and physical protection. The licensee must also prepare an emergency plan.

The Law sets out criteria for classifying a nuclear accident into one of the categories prescribed by the Law, these being in line with the INES scale. In the event of an accident, the licensee must take measures to ensure the protection of both workers and the public from radiation, and in particular it must inform the competent authorities of any increase in the activity level, provide medical assistance to those affected by the accident, minimise the release of radioactive substances into the environment, and provide compensation for damage to human health, property and the environment caused by the accident.

Regarding radiation protection, the Law sets the permissible annual dose limit at 1 millisievert (mSv) for the population and at 20 mSv for workers, subject to a permitted increase of the annual effective dose under certain conditions. The Law also requires licensees to plan and implement radiation protection measures, systematically control the release of radioactive substances into the environment and at workplaces, monitor and record the personal radiation doses of workers, provide radiation protection training and certification of managers and workers at facilities, submit workers to regular medical examinations and provide them with regular information on ionising radiation parameters and their personal radiation doses.

The Law further provides for the establishment of a state system of physical protection co-ordinated by the Ministry of the Environment and Natural Resources. Such a system aims to prevent illicit acquisition, possession, use, transfer, modification, destruction or dispersion of nuclear material, radioactive substances and other ionising radiation sources which could result in personal injury, damage to property or contamination of the environment. Nuclear material, radioactive substances and other ionising radiation sources are classified into three categories for the purpose of applying different levels of physical protection measures to them.

Regarding radioactive waste management, the Law provides that the operator of a radioactive waste processing facility has the right to receive, collect, transport, account for, pre-treat, process and dispose of radioactive waste. The collection, interim storage, preparation and transfer of radioactive waste, as well as its accounting are undertaken by the waste generator, which bears the cost of its transportation from its facility to the processing plant. The import, transit, export and re-export of any type of radioactive waste into or out of the country is prohibited.

Lastly, the Law grants rights to, and imposes obligations on, citizens and public organisations, particularly with regard to rights to information.

With a view to complementing the Law, it is expected that the following instruments will be adopted:

- a Law on the Transport of Radioactive Substances;
- a Law on Radioactive Waste Storage;
- a Decree on the Licensing of a Nuclear and Radiation-related Activity;
- a Decree on the State Inventory of Radioactive Substances and Waste;
- a Decree on the Register of Radioactive Waste;
- a Decree on Radiation Safety Standards.

An English version of the text of the Law on Nuclear and Radiation Safety is available from the Secretariat of the OECD Nuclear Energy Agency.

## **Germany**

### ***Radiation Protection***

#### *Amendments to nuclear legislation implementing Euratom Directives (2000)*

By the Act of 3 May 2000 to Amend Nuclear Law Provisions to Implement Euratom Directives on Radiation Protection (*Bundesgesetzblatt* 2000 I p. 636; corrigendum p. 1350), several nuclear acts were amended. These amendments aim 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 of 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, and to repeal Council Directive 84/466/Euratom (see *Nuclear Law Bulletin* No. 60).

The Act amends the definition of “Radioactive Substances” in Section 2 of the Atomic Energy Act, and revises the provisions (Sections 11 and 12) which enable the government to issue relevant ordinances, in particular to amend the Radiation Protection Ordinance (see *Nuclear Law Bulletin* Nos. 16, 18, 19, 28, 44, 52 and 59). A new Section 12b of the Atomic Energy Act empowers the government to issue an Ordinance on the Control of the Reliability of Persons to Protect against Theft or Substantial Release of Radioactive Substances. There are consequential amendments to the provisions on administrative powers (Sections 23 and 24) and some minor drafting changes were made to the liability provisions [Sections 25(2) and 26(5)].

Other amendments affect the 1988 Act on the Establishment of a Federal Office for Radiation Protection (see *Nuclear Law Bulletin* Nos. 41, 43, 44 and 61) and the 1981 Ordinance on Nuclear Costs (see *Nuclear Law Bulletin* Nos. 29 and 51).

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

#### *Amendment to the nuclear third party liability provisions of the Atomic Energy Act (2001)*

On 5 March 2001, Parliament adopted the Ninth Act to Amend the Atomic Energy Act (*Bundesgesetzblatt* 2001 I p. 326). The new Act aims to implement the 1988 Joint Protocol relating to the Application of the Vienna Convention and the Paris Convention at national level. The Act mainly contains drafting changes consequential to the ratification of the Joint Protocol by Germany, but changes of substance were made to Sections 26, 31(2) and 37(2). Section 26 deals with liability for damage caused by radioactive substances not covered by the Paris Convention. It provides for a regime of strict liability without limitation in amount. However, the person liable may be relieved from liability if he proves that he took all precautionary measures to prevent the damage (modified strict liability). A new paragraph 1(a) in Section 26 repeals that exoneration in cases where the damage is caused by radioactive substances which – if the Paris Convention or the Vienna Convention were applicable to such substances – would be considered as “nuclear fuel” or “radioactive products or waste” in the sense of those Conventions. Since such radioactive substances create the same risk as nuclear fuel or radioactive products or waste as defined in the Conventions, the person liable should not benefit from the exoneration rule but rather, should be held strictly liable in the same way as the person liable under the Conventions.

Section 31(2) deals with nuclear incidents occurring in Germany and causing damage in the territory of another state. According to the existing rule, the unlimited liability of a German operator only applies if the other state grants reciprocal benefits. While the amendment does not affect this general rule, it does make it clear that the German operator's liability is limited to the amount which the other state would have granted to victims in Germany, including funds provided for under international agreements on supplementary compensation, at the time of the incident. If damage occurs in a state where there is no nuclear installation, reciprocity is not required for compensation to be payable, but the liability of the German operator is limited to the maximum amount of compensation under the Brussels Supplementary Convention.

Section 37(1) establishes, in certain cases, the state's right of recourse vis-à-vis the liable operator with regard to indemnification granted pursuant to Section 34 of the Atomic Energy Act. A new paragraph 2 now entitles the state to such recourse irrespective of whether the prerequisites pursuant to paragraph 1 are met, if the operator is not of German nationality and does not have his domicile, principal place of business or permanent residence either within the territory of a European Union State, a Paris Convention State, a Vienna Convention/Joint Protocol State or any other state with which Germany has concluded an agreement on compensation for nuclear damage.

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

#### *Amendment to the Foreign Trade Ordinance (2000)*

The Foreign Trade Ordinance of 22 November 1993, last amended by the 50<sup>th</sup> Ordinance (see *Nuclear Law Bulletin* No. 65), was once again amended by four further Ordinances (*Bundesanzeiger* 2000 pp. 18577, 20625, 22945, 23585). The 51<sup>st</sup> to 54<sup>th</sup> amending Ordinances deal, *inter alia*, with embargoes and implement EC Regulations.

The Export List, last amended on 10 June 1999 (see *Nuclear Law Bulletin* No. 65), was replaced by the 97<sup>th</sup> Ordinance to amend such List – Annex AL to the Foreign Trade Ordinance (*Bundesanzeiger* 2000 p. 14653).

The Import List, last amended on 15 December 1999 (see *Nuclear Law Bulletin* No. 65), was replaced by the 141<sup>st</sup> Ordinance of 18 December 2000 to amend such List – Annex to the Foreign Trade Act (*Bundesanzeiger* 2000 p. 24069).

### ***Food Irradiation***

#### *Ordinance on the Treatment of Foodstuffs with Radiation (2000)*

On 14 December 2000 the Federal Ministry of Health issued an Ordinance on the Treatment of Foodstuffs with Electronic-, Gamma-, and X-Rays, Neutron- or Ultraviolet-Radiation (*Bundesgesetzblatt* 2000 I p. 1730). The Ordinance is based on the 1992 Foodstuffs and Consumers' Goods Act, as amended, (see *Nuclear Law Bulletin* No. 52). It aims at implementing Directive 1999/2/EC of the European Parliament and of the Council of 22 February 1999 on the approximation of the laws of Member States concerning foods and food ingredients treated with ionising radiation (see the chapter on "International Regulatory Activities" of this *Bulletin*), as well as Council Directive 1999/13/EC of 11 March 1999 on the limitation of emissions of volatile organic compounds due to the use of organic

solvents in certain activities and installations and Directive 2000/13/EC of the European Parliament and of the Council of 20 March 2000 on the approximation of the laws of Member States relating to the labelling, presentation and advertising of foods.

Pursuant to Section 1 of the Ordinance it is generally permitted:

- to irradiate dried aromatic herbs and spices with electronic-, gamma-, and X-Rays as specified in Annex 1(1), provided that the prerequisites of paragraph 2 are met;
- to irradiate and treat food with neutron rays for control and monitoring purposes and within prescribed limits;
- to sterilise drinking water, the surface of fruits and vegetables and hard cheese during storage by direct radiation by ultraviolet-rays.

Special conditions apply to the marketing of irradiated dried aromatic herbs and spices and of foods containing such herbs and spices, which are imported from non-EC countries (Section 2). Irradiated herbs and spices have to be clearly labelled (Section 3). Installations for irradiation, as defined in Section 1(1) of the Act, may only be operated if licensed by the competent authority (Section 4). Operators of such installations are obliged to keep account of the entire procedure for irradiating food (Section 5).

The Ordinance entered into force on 15 December 2000 and replaced the former Foodstuff-Irradiation-Ordinance, last amended on 16 May 1975 (*Bundesgesetzblatt I* pp. 1281, 1859).

#### *General Administrative Regulations on Radioactivity Limits in Food and Feeds (2000)*

Pursuant to Article 85(2) of the Basic Law (Constitution), the Federal Government issued two General Administrative Regulations (*Verwaltungsvorschriften*) dealing with the control of food and feeds irradiated as a consequence of a nuclear incident.

The General Administrative Regulation of 22 June 2000 creates an administrative framework for the application of Council Regulation (Euratom) No. 3954/87 of 22 December 1987 laying down maximum permitted levels of radioactive contamination of foodstuffs and of feedingstuffs following a nuclear accident or any other case of radiological emergency (*Bundesanzeiger* 2000, p. 12565). Its objective is to establish a binding and harmonised system for controlling the radioactive contamination of foods and feeds (Section 1), thereby ensuring the proper application of the Euratom Regulation.

A nearly identical General Administrative Regulation was issued on 28 June 2001 with a view to implementing this same Euratom Regulation (*Gemeinsames Ministerialblatt* 2000, p. 490).

## **Ireland**

### ***Food Irradiation***

#### *European Communities (Foodstuffs Treated with Ionising Radiation) Regulations (2000)*

These Regulations were adopted as Statutory Instrument No. 297 on 20 September 2000. They implement Directive 1999/2/EC on the approximation of the laws of Member States concerning foods and food ingredients treated with ionising radiation, and Directive 1999/3/EC on the establishment of a Community list of foods and food ingredients treated with ionising radiation, both adopted by the European Parliament and the Council on 22 February 1999 (see the chapter on “International Regulatory Activities” of this *Bulletin*). The Regulations should be read together with these Directives.

The Regulations lay down general provisions for the treatment of food with ionising radiation. Any person proposing to carry on the business of irradiating food is required, in particular, to obtain both a licence from the Radiological Protection Institute of Ireland as well as a permit from the Food Safety Authority of Ireland. These bodies may attach any conditions which they deem appropriate to the licence or permit, which is issued for a period up to three years.

The Regulations also provide for the appointment of an authorised officer or inspector whose mission is to carry out examinations, tests, inspections and checks of the irradiation facility premises, any food, article or substance used in food irradiation, and any equipment, machinery or plant at the premises.

The Regulations refer to a positive list of foods authorised for treatment with ionising radiation and their maximum radiation doses, which are contained in Directive 1999/3/EC.

## **Japan**

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

#### *Law for Nuclear Siting Area Development (2000)*

This Law was adopted on 1 December 2000 and entered into force on 1 April 2001 for a ten-year period. Its purpose is to promote the development of nuclear power plant siting areas by providing, in particular, financial assistance. It also aims to mitigate the effects of a nuclear accident.

The Law provides for the establishment of a Nuclear Siting Council to be headed by the Prime Minister and composed of various other ministers. The Prime Minister is to designate siting areas after consultation with the Council and to make plans for siting areas development. These plans are to include the development of infrastructure, promotion of local industries such as agriculture, forestry and fisheries, and improvement of the living environment.

To support the development plans the Law provides for special measures, including granting additional subsidies for extensive projects aimed at developing and improving roads, railways and port facilities in areas surrounding the nuclear facility.

## Republic of Korea

### *Third Party Liability*

#### *Amendments to the Act on Compensation for Nuclear Damage (2001)*

Act No. 2094 of 24 January 1969 on Compensation for Nuclear Damage (see *Nuclear Law Bulletin* No. 7), as amended (see *Nuclear Law Bulletin* No. 18), was once more amended by Act No. 6350 of 16 January 2001. The amending legislation will enter into force on 1 January 2002, except for certain provisions which will enter into force on 1 July 2002. This latest revision aims to reflect the principles contained in the Vienna Convention on Civil Liability for Nuclear Damage, as amended.

The main amendments introduced by Act No. 6350 are the following:

- Extension of the definition of “nuclear damage” [Section 2(1) of the Act as revised]: the new definition of “nuclear damage” is in line with the definition of this term as set out in the 1997 Protocol to Amend the Vienna Convention.
- Extension of the geographical scope of the Act (Section 2-2 of the Act as revised): the Act now applies to nuclear damage resulting from a nuclear incident occurring not only in the territory of the Republic of Korea but also in its exclusive economic zone. Another addition is the recognition of the reciprocity principle.
- Exonerations from liability [Section 3(1) of the Act as revised]: the Act no longer permits exoneration from liability where the damage results from a grave natural disaster. An operator may now only be exonerated from liability if the damage results from an act of armed conflict or hostilities amongst nations, civil war or insurrection.
- Introduction of the limited liability principle (Section 3-2 of the Act as revised): the Act introduces the principle of limited liability and sets out the operator’s liability amount at 300 million Special Drawing Rights (SDRs). Lower amounts of liability may be established by presidential decree.
- Increase in financial security limit [Section 6(1) of the Act as revised]: the operator is required to have insurance or other financial security for an amount at least equivalent to the liability amount.
- Establishment of prescription periods (Section 13-2 of the Act as revised): while the former Act did not provide for any prescription rules, the Act as amended states that a compensation claim may be presented within 30 years for personal injury, disease or loss of life and 10 years for the other types of damage from the date of the accident.

The text of this Act as revised will be reproduced in the Supplement to *Nuclear Law Bulletin* No. 68.

## Latvia

### *General Legislation*

#### *Act on Radiation Safety and Nuclear Safety (2000)*

The new Act on Radiation Safety and Nuclear Safety, which repeals and supersedes the Act of 1 December 1994 on the same subject (see *Nuclear Law Bulletin* No. 55), was adopted on 26 October 2000. Its purpose is not only to ensure the protection of people and the environment against the harmful effects of ionising radiation and to set out safety requirements for ionising radiation sources but, also to establish the rights and responsibilities of state bodies, physical persons and legal entities in the field of radiation protection and nuclear safety (Section 2).

The Act sets up a new, independent regulatory authority under the supervision of the Ministry of Environmental Protection and Regional Development (MEPRD), namely the Radiation Safety Centre (Section 4), together with an advisory body, the Radiation Safety Board (Section 8). The Radiation Safety Centre is charged with supervising and controlling radiation protection and nuclear safety on behalf of the state, co-ordinating technical assistance programmes in this field, issuing licences for activities involving ionising radiation sources, organising and co-ordinating the training of inspectors, managers and persons whose work involves such sources, establishing and updating databases on the exposure of workers and members of the public, ensuring the proper accounting of ionising radiation sources and ensuring emergency preparedness (Section 5). Radiation Safety Centre Inspectors may inspect premises where ionising radiation sources are used and if necessary, collect samples (Section 7).

The Radiation Safety Board is responsible for advising state and local government institutions and authorities, including the Radiation Safety Centre on issues related to radiation protection and nuclear safety and for promoting co-operation between various institutions to strengthen radiation safety (Section 8).

In addition to the Centre and the Board, the MEPRD ensures proper monitoring of radiation levels, the Ministry of Welfare carries out mandatory medical examinations of exposed workers and controls ionising radiation equipment, and the State Border Guards are charged with inspecting shipments of radioactive substances.

The new Act confirms the basic principles of radiation protection and nuclear safety contained in the 1994 Act: justification, optimisation and dose limitation, the obligation to maintain insurance against third party liability and occupational accidents and illnesses, and licensing (Section 3).

The Act establishes a two-pronged system of licensing, differentiating between special permits (licences) for commercial operations and permits for non-commercial operations. Both are issued by the Radiation Safety Centre (Section 11). The procedure to be followed by the Centre when issuing a licence for the operation or modification of an ionising radiation facility of state-level importance is set out in Section 12.

Under the Act, an operator is required to ensure radiation protection of exposed permanent and outside workers by, in particular, providing them with personal and collective protection and control equipment (Section 13) and to ensure physical protection of ionising radiation sources (Section 22). The manager, appointed by the operator to ensure effective protection of the workers and the

population, is required to *inter alia*: enforce safety measures to protect workers, members of the public and the environment against harmful effects of ionising radiation and prevent radiation accidents, inform the operator and the Centre of any accident with an effect on radiation and nuclear safety, ensure safe collection, isolation, storage, treatment and disposal of radioactive waste, accounting of radioactive substances, nuclear materials and other ionising radiation sources, and training and information of the workers (Section 14). The Act provides for information of the workers, the state bodies and the population on potential radiation accidents and measures to be taken to protect the public in such a situation (Section 15).

Activities involving ionising radiation sources must be carried out by trained workers meeting the requirements set out in the Act. Such workers must use proper protection equipment and conduct measurements of received doses (Section 17). Additional protective requirements apply to the employment of persons aged between 16 and 18 years, pregnant women and breast-feeding mothers (Section 18).

The Act also sets out requirements for the packaging, marking and supply of ionising radiation sources (Section 23).

While the former Act prohibited the import of radioactive waste, the new Act provides for certain exceptions to this principle of prohibition (Section 27).

Another feature of the 2000 Act is the increase of the civil liability amount of the operator for nuclear damage from 1 million to 80 million Latvian lats.\* The operator shall be exonerated from his liability if the damage occurred as a result of *force majeure*, or intended actions or negligence of the victim (Section 29).

Under the new Act, the Regulations issued pursuant to the 1994 Act are to remain in force until the adoption of new regulations by the Cabinet of Ministers, but in any event for not more than one year after the entry into force of this Act. The new regulations are expected to cover, *inter alia*, the following topics:

- Accounting and Control of Radiation Exposures.
- Exemptions from Licensing.
- Radiation Protection.
- Procedures for Public Hearing.
- Radioactive Waste Management.
- Packaging and Marking of Ionising Radiation Sources.
- Disposal of Ionising Radiation Sources.

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

---

\* This sum is equivalent to approximately 126 million SDRs.

## **Lithuania**

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

#### *Resolution Approving the Decommissioning Programme for Unit 1, Ignalina NPP (2001)*

Pursuant to the 2000 Law on the Decommissioning of Unit 1 at the Ignalina NPP (hereinafter INPP) (see *Nuclear Law Bulletin* No. 66), on 19 February 2001 the government issued Resolution No. 172 approving the decommissioning programme for Ignalina Unit 1. The Resolution empowers the Ministry of Economy to implement the programme, together with a Commission set up under Decree No. 231 of 29 February 2001 to co-ordinate the implementation of the INPP-related provisions contained in the National Energy Strategy. The programme consists of three stages: preparation for decommissioning (until 2004), preparation for dismantling of the facilities for long-term storage (from 2005 to 2010) and dismantling of facilities and buildings either immediately or after long-term storage (from 2011 to 2030-2080) respectively.

The programme aims, in particular, to ensure the safe maintenance of the INPP during the preparation for, and actual decommissioning of, Unit 1 and to mitigate any negative social and economic effects on Lithuania, the inhabitants of the region and the staff of the INPP as a result of the decommissioning.

The programme is *inter alia* financed from the International INPP Decommissioning Fund.

## **Luxembourg**

### ***Radiation Protection\****

#### *Grand-ducal Regulations on the Protection of the Public against the Risks Resulting from Ionising Radiation (2000)*

The drafting of new Grand-ducal Regulations governing the Protection of the Public against the Risks Resulting from Ionising Radiation (adopted on 14 December 2000 and published in the Official Journal of 22 January 2001), designed to replace the Grand-ducal Regulations of 29 October 1990 on the same subject (see *Nuclear Law Bulletin* No. 48) and the Grand-ducal Regulations of 17 August 1994 prohibiting the Manufacture of and Trade in Fire or Smoke Detectors Containing Radio-elements (see *Nuclear Law Bulletin* No. 55) was rendered necessary following the repeal of the Directives establishing basic standards to protect the health of the public and of workers against the dangers resulting from ionising radiation, as last amended by Directive 84/467/Euratom, and their replacement with Council Directive 96/29/Euratom of 13 May 1996 (see *Nuclear Law Bulletin* No. 58).

It had become necessary to draft this new Directive in order to take into account the development of scientific knowledge in the field of radiation protection, reflected in particular in Recommendation No. 60 of the International Radiological Protection Commission (IRPC), but also to

---

\* This information note was kindly submitted by Doctor Michel Feider from the Radiation Protection Division of the Luxembourg Health Directorate.

harmonise the basic standards of radiation protection applicable throughout the European Union with the international basic standards promulgated by the International Atomic Energy Agency (IAEA) in co-operation with the United Nations Organisation for Food and Agriculture (FAO), the OECD Nuclear Energy Agency (OECD/NEA), the Pan-American Health Organisation (PAHO), the International Labour Organisation (ILO) and the World Health Organisation (WHO).

The Grand-ducal Regulations of 29 October 1990 which themselves replaced the Grand-ducal Regulations of 8 February 1967 (see *Nuclear Law Bulletin* No. 1) had already reduced the annual dose limits for professionally-exposed workers and for the public to 10 mSV and 1 mSV respectively, in light of certain scientific conclusions.

In its new Directive, the Commission concurs with the dose limits applicable to the public in Luxembourg since 1990. However, the dose limit established by the Commission for professionally-exposed workers is twice as high as that applicable in Luxembourg since 1990. The Commission was of the opinion that the Member States should comply strictly with the terms of this Directive. However, the Court of Justice of the European Communities, following a judgement in a case between the Commission and Belgium, ruled that from a Community law point of view, it was perfectly acceptable for a Member State to establish more stringent limits than those set out in a Community Directive.

With the exception of this dose limit for professionally-exposed workers, these new Regulations are in conformity with the provisions of Directive 96/29/Euratom.

The most important changes and the main characteristics introduced by these Regulations are as follows.

The new Regulations make a distinction between practices and interventions. Practices include human activities which may increase exposure to radiation; interventions are human activities which prevent or reduce exposure to radiation in the event of a radiological emergency or in the case of exposure over a long period of time resulting from the consequences of a radiological emergency or from professional practices or activity carried out in the past. Thus, the concept of intervention is introduced into a legal instrument on the subject of radiation protection for the first time. The grand-ducal Regulations of 1990 did not refer to exposures caused by interventions.

Certain practices are exempt from the requirement to obtain a preliminary licence from the competent authorities. The Directive establishes a threshold (exemption level) for each radio-element, below which a licence for its possession or use is no longer compulsory. There are two reasons to exempt a practice from licensing requirements. One of these is where the practice in question only leads to minor exposure, even in the case of an accident. Another reason is that it is impossible to set up a suitable system of inspection and control which would allow a reduction in the individual or collective dose administered by these practices. The new Regulations retain these thresholds; however in order to avoid any abuse they also introduce a number of requirements which must be observed and provide that certain practices are subject to prior notification.

A threshold is introduced below which practices are exempt from declaration or notification requirements (exclusion level). In fact, the 1990 Regulations were ambiguous and did not clearly set out what was to be considered radioactive and what wasn't. It is necessary to clearly define the limits for the quantities of radioactivity which are to be considered as insignificant. The new Regulations do, however, introduce a catch-all provision stating that each practice which is excluded from the licensing or declaration regime may be either proscribed or made subject to licensing or declaration at a later stage if it does not comply with certain requirements.

Thresholds are also introduced below which radioactive substances or materials containing such substances may be released, recycled or reused (release threshold). These thresholds should not be confused with the exemption levels. The former only concern materials released, recycled or reused from installations subject to a licensing or declaration regime, *i.e.* substances which from the outset are subject to a control regime. The release thresholds established in this legislation are identical to those recommended by the German Radiation Protection Commission (*Strahlenschutzkommission* – SSK, volume 16, 1998) for unconditional release of radioactive substances or materials containing them. However, release, recycling and reuse are governed by quite restrictive criteria set out in Annex 2 of the Regulations.

According to the 1990 Regulations, establishments using radionuclides are classified according to radiotoxicity and activities carried out. This concept is no longer used in the 1996 Directive. However, the classification concept remains in force in the new Regulations as it has proved useful and adapted to the actual risks posed by use of radioactive sources used by facilities. The exemption level and multiples of this level are used now as criteria for the classification of establishments.

Pursuant to the new Regulations, licenses for low-activity sealed sources and, subject to certain requirements, modifications to existing licenses, are from now on to be delivered by the Health Directorate rather than the Minister for Health. The existing Regulations had proved to be rather impractical seeing as an establishment which wanted for example to replace a radioactive source by a less radiotoxic source of lower activity was required, under the 1990 Regulations, to commence a new licensing procedure. As a whole, the new Regulations will not change current practices very much, except for simplifying the licensing procedure for low-activity sources posing a low radiological risk.

The 1990 Regulations had not taken into account the dangers for workers professionally exposed to natural radioactive substances. The new Regulations acknowledge that certain exposures resulting from professional activities using natural sources of radiation are of sufficient importance to justify particular attention, or even protective measures.

The concept of “dose constraints”, introduced by the ICPR in relation to the optimisation of protection, was retained in the new Regulations. These dose constraints represent a ceiling for individual doses from a given source, practice or activity which could be considered as acceptable in the optimisation procedure applicable to such source, practice or activity. Dose constraints may be established and used by installations in order to optimise protection at the design or planning stage. Similarly, they may also be set out by the competent authorities during the optimisation process.

The other improvements, amendments and characteristics of these new Regulations are as follows:

- more stringent requirements concerning the information to be provided in a licensing application, in particular in relation to radioactive waste and accident prevention;
- more detailed provisions governing operations during manufacture, possession, use, treatment, handling and storage of substances, apparatus or installations capable of emitting ionising radiation;
- the provisions governing operations and the duties of heads of establishments, qualified experts and those responsible for physical protection have been reinforced;
- a national dosimetry registry has been established within the Radiation Protection Division of the Health Directorate and requirements have been set out in relation to its maintenance;

- relations with in-house medical services and with the in-house medical service division of the Health Service have been formally defined.

*Grand-ducal Regulations relating to Foods and Food Ingredients Treated with Ionising Radiation (2000)*

These Grand-ducal Regulations of 17 July 2000 aim to implement various instruments into the law of Luxembourg, including Directive 1999/2/EC of the European Parliament and of the Council of 22 February 1999 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 the European Parliament and of the Council of 22 February 1999 on the establishment of a Community list of foods and food ingredients treated with ionising radiation (see the chapter on “International Regulatory Activities” of this *Bulletin*).

The afore-mentioned Directives were drafted in order to reduce as much as possible the risk of distorting competition within the European Union, given that substantial differences exist in national legislation on the subject of the treatment of foodstuffs and ingredients by ionisation and on the conditions of such treatment.

These Grand-ducal Regulations set out limitations concerning the foodstuffs and food ingredients which may be treated with ionisation. The list set out in Annex IV to the Regulations deals only with dried aromatic herbs, spices and condiments of vegetal origin. Consequently, only those products expressly mentioned on the “positive” list may be treated by ionisation. The inclusion of these products on the list is justified by the fact that they are frequently contaminated or infested by living organisms and their metabolites, and which therefore could damage public health. Furthermore, such contamination or infestation may not be treated by a fumigant such as ethylene oxide due to the risk of poisonous residue.

The rules concerning the use of ionising radiation to treat foodstuffs take into account first the protection of human health, without however neglecting, within those limits fixed for health protection, the reality of economical and technical needs.

## **Mexico**

### ***Radiation Protection***

*Norm regarding Selection, Qualification and Training Requirements for Staff of a NPP (2000)*

This Norm (NOM-034-NUCL-2000) was adopted on 21 July 2000 by the Ministry of Energy (Federal Official Bulletin of 4 September 2000). It sets out the education, training and experience requirements for personnel working at a nuclear power plant with the aim of minimising the risks posed by the use of nuclear fuel and by radioactive waste. It covers, in particular, requirements for operating personnel, the manager, the director, the supervisor of the nuclear installation, the operator of the reactor, and technical support staff. The Norm also sets out a training and re-education programme to be attended by the licensed personnel of a nuclear plant.

## ***Radioactive Waste Management***

### *Norm regarding Solid Residue as Radioactive Waste (2000)*

This Norm (NOM-035-NUCL-2000) was adopted on 14 April 2000 by the Ministry of Energy and published in the Federal Official Bulletin on 19 May 2000. It sets out the criteria pursuant to which a solid residue containing radionuclides and produced by a radiation or nuclear installation will be deemed radioactive waste.

## **Mongolia**

### ***Non-Proliferation***

#### *Law on Nuclear-Weapons-Free Status and its Implementing Resolution (2000)*

This Law, adopted on 3 February 2000, aims to preserve the territory of Mongolia free from nuclear weapons. Accordingly, it is prohibited to develop, manufacture or otherwise acquire, possess, have control over, store, transport, test or use nuclear weapons and to dump or dispose of nuclear weapons grade radioactive material or waste in the territory of Mongolia (Section 4).

The Law provides for both national and international verification of nuclear-weapons-free status through the National Security Council and the central administrative authority responsible for foreign affairs (Section 6), and in co-operation with relevant international organisations or by concluding international agreements (Section 7). In the event of an inconsistency between the Law and an international agreement to which Mongolia is a Party, the latter provisions shall prevail (Section 2.2).

Any person violating the Law will be required to pay compensation for damage caused to the interests of Mongolia, its population, the environment and property (Section 8).

Resolution No. 19, adopted on 3 February 2000 for the purposes of implementing this Law, empowers the government to take measures necessary to ensure the proper operation of stations located in Mongolia that are designed to monitor nuclear weapons testing, and to actively co-operate with other states and international organisations, including the International Atomic Energy Agency, to implement this Law.

The use of nuclear energy and technology for peaceful purposes, *i.e.* for mining, energy generation, medicine and research, requires a licence issued by the state administrative authority in charge of nuclear energy (Section 5).

English versions of the text of the Law and the Resolution are available from the Secretariat of the Nuclear Energy Agency.

## **Netherlands**

### ***General Legislation***

#### *Amendment to the Nuclear Energy Act (2000)*

By Act of 13 December 2000 (published in the Official Gazette No. 30 of 2001), the 1963 Nuclear Energy Act (see *Nuclear Law Bulletin* Nos. 3-5 and 8) was made subject to several amendments which subsequently entered into force on 2 February 2001. The most important modifications are described below.

First, when a nuclear installation licence needs to be extensively modified, or when it has already been subjected to several modifications in the past, the transparency and legal security of the licensing process may become insufficient. To redress this situation, the amendments now permit the issuance of a so-called revision licence.

Secondly, under the previous Nuclear Energy Act, every licence had to be issued by six different ministers together. Under the revised Act, the responsibilities are now rearranged. The Minister for Housing, Spatial Planning and the Environment is now responsible for the environmental aspects of fissionable materials and of radioactive materials and equipment, and the Minister for Social Affairs and Employment is responsible for worker protection. Together, they are responsible for both legislation and licensing under the Nuclear Energy Act.

## **Norway**

### ***Radiation Protection***

#### *Act on Radiation Protection and Use of Radiation (2000)*

Act No. 36 of 12 May 2000 on Radiation Protection and Use of Radiation, which entered into force on 1 July 2000, repeals and replaces Act No. 1 of 18 June 1938 on the Use of X-rays and Radium, etc. The purpose of this new Act, is to protect human health from the harmful effects of radiation and to promote the protection of the environment. The Act applies to the manufacture, import, export, transport, transfer, possession, installation, and use of radiation sources as well as to the handling and disposal of their waste. It also covers emergency planning and preparedness. More detailed administrative regulations are expected to be adopted pursuant to this Act.

Under the Act, the Ministry of Health and Social Affairs is the competent authority in matters of radiation protection. In this capacity, it is not only responsible for drafting legislation in this field but also for ensuring that work involving ionising radiation is properly carried out.

## **Pakistan**

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

#### *Pakistan Nuclear Regulatory Authority Ordinance (2001)*

This Ordinance, promulgated on 22 January 2001, establishes the Pakistan Nuclear Regulatory Authority as the independent authority in Pakistan responsible for controlling, regulating and supervising all matters relating to nuclear safety and radiation protection. The Ordinance also provides for civil liability for nuclear damage resulting from a nuclear incident.

Under the Ordinance, the Pakistan Nuclear Regulatory Board (PNRB) and the Directorate of Nuclear Safety and Radiation Protection (DNSRP) are dissolved and all of their assets, rights, powers, authorities, privileges, property, etc., are transferred to the new Authority.

## **Poland**

### ***General Legislation***

#### *Atomic Energy Act (2000)\**

### **Introduction**

The new Atomic Energy Act was adopted on 29 November 2000 and will enter into force on 1 January 2002, with the notable exception of Chapter 13 on the President of the National Atomic Energy Agency, which entered into force 14 days after publication. This new and comprehensive legislation replaces the former Atomic Energy Act of 10 April 1986 (see *Nuclear Law Bulletin* No. 40), whose text was reproduced in the Supplement to *Bulletin* No. 43. It regulates all activities related to peaceful uses of nuclear energy and defines the role of the competent authority in the nuclear safety and radiation protection fields. It further identifies the operator's obligations and the principles of nuclear third party liability.

The 1986 Act required amendment for a number of different reasons:

- Since 1986, Poland has become a member of several international organisations and has acceded to conventions addressing issues related to atomic energy applications, requiring the revision of national regulations to comply with international standards. The major obligations in this area result from the Poland Association Agreement with the European Communities, which calls for the harmonisation of Polish legislation with that of the European Union.

---

\* This note is based on the information which was kindly submitted to us by Ms. Magdalena Akonom, Director of the Legal and Organisational Department, National Atomic Energy Agency, Poland.

- Previously, there were no regulations governing the management of radiological emergencies resulting from accidents in nuclear installations or in facilities using ionising radiation sources.
- The 1986 Act does not cover activities involving exposure to natural ionising radiation enhanced by human activity.
- Certain organisational issues, important from a radiological protection viewpoint, were resolved by independent resolutions adopted in the Council of Ministers in the early sixties. Such resolutions are incompatible with the existing concept of sources of law.
- The Act needed to be adjusted to take into account constitutional requirements.

This Act aims furthermore to introduce principles laid down in the international legal instruments to which Poland is a Party or to whose principles it adheres, in particular those concerning radiological protection issues, namely:

- The Convention on Nuclear Safety;
- The Joint Convention on the Safety of Radioactive Waste Management and on the Safety of Spent Fuel Management;
- 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.

## **Comparison of the new Act with the 1986 Act**

### *Chapter 1. General Provisions*

The scope of application of the Act was extended and now includes activities involving exposure to natural ionising radiation enhanced by human activity, as well as activities undertaken during radiological emergencies or in the event of long-term exposure resulting from such an emergency [Sections 1(3) and (4)].

In light of the extension to the scope of application of the Act, new terms are defined.

### *Chapter 2. Licences addressing Nuclear Safety and Radiological Protection Issues*

As already set out in the 1986 Act, the new Law provides that any person carrying out activities involving exposure to ionising radiation such as manufacture, use, transport, conversion, storage, or disposal of nuclear materials, radioactive sources, radioactive waste and spent nuclear fuel, or construction, commissioning, operation and decommissioning of nuclear facilities, is required to obtain a licence issued by the President of the National Atomic Energy Agency (NAEA). The licensing requirement is, however, extended in the new legislation to activities involving the intentional addition of radioactive material during the manufacture of medical products and the import and export of such products, and also the intentional administration of radioactive material to humans

and animals for the purpose of medical or veterinary diagnosis, treatment or scientific research [Section 4(1)].

There are now two authorities responsible for issuing licences: the NAEA President issues licences for all types of activities referred to in Section 4(1) [Section 5(2)] subject to one exception; whereas licences for the manufacture, purchase, commissioning and operation of X-ray devices emitting radiation up to 300 keV, used for medical purposes, are issued by the regional health inspector (in the case of Ministry of Defence units – a military health inspector) [Section 5(3)]. This division of responsibilities between the competent authorities also applies to the appointment of radiological protection inspectors and in relation to supervision of issued licences.

### *Chapter 3. Nuclear Safety, Radiological Protection and Employees' Health Protection*

Persons conducting activities in these fields shall be responsible for compliance with nuclear safety and radiation protection requirements, in particular through the appointment of a radiological protection inspector (Section 7). All such activities shall be carried out in compliance with the principles of justification, optimisation and dose limitation [Sections 8, 9(1) and 14(1)] as was already provided in the 1986 Act. The new Act also governs exposure to ionising radiation for medical purposes, and provides that the Minister for Health shall establish requirements governing the safety of such exposure in regulations (Section 15).

An obligation to perform regular assessments of public exposure resulting from ionising radiation applications was also introduced (Section 24).

The new Law divides occupationally exposed employees into two categories (A and B), according to the level of their exposure (Section 17), and separates their workplaces into controlled and supervised areas (Section 18).

The Law regulates the exposure of persons beyond the specified dose limits when carrying out special tasks (Section 19) and during emergency interventions (Section 20). It further establishes the ionising radiation doses which may be received by individuals participating in such activities.

The obligations of the employer in respect of personnel employed to carry out tasks which involve occupational exposure have been established in order to protect the health of the personnel and to ensure that the protection of outside (contract) workers is equivalent to that of permanent staff (Section 29). The Law provides that the operator shall ensure health surveillance and personal protection of workers, in particular by providing them with dosimetric equipment (Section 26) and by organising periodic medical examinations (Sections 10 and 30). Occupational exposure assessment of workers shall also be performed through individual dose measurements or dosimetric measurements in the workplace (Section 17). Radiation workers are also required to possess the appropriate skills and qualifications and to complete preliminary and periodic training courses, organised by the operator, on nuclear safety and radiation protection (Section 11). Special protective measures are organised for category-A workers (Section 30).

### *Chapter 4. Nuclear Facilities, Chapter 5. Nuclear Materials and Chapter 6. Ionising Radiation Sources*

The provisions of these Chapters remain relatively unchanged. Rules concerning the physical protection of nuclear materials have however been established in more detail. The Act also grants the

Council of Ministers with the power to establish detailed technical requirements for the laboratories using radiation sources and rules governing work involving such sources (Section 45).

#### *Chapter 7. Radioactive Waste and Spent Nuclear Fuel*

The Act sets out the principles governing the whole process of radioactive waste and spent nuclear fuel management. The Council of Ministers is empowered to issue specific regulations governing the different stages of this process. At all stages of its management, spent nuclear fuel constitutes a nuclear material and, as such, requires appropriate physical protection.

#### *Chapter 8. Transport of Nuclear Materials, Ionising Radiation Sources, Radioactive Waste and Spent Nuclear Fuel*

Regulations on import and export of such materials were introduced, together with the obligation to obtain the NAEA President's approval for import, export and transit of radioactive waste and spent nuclear fuel (Section 62).

#### *Chapter 9. Surveillance and Inspection of Nuclear Safety and Radiological Protection (Chapter 10 of the 1986 Act)*

The provisions governing activities related to the surveillance and inspection of nuclear safety and radiological protection conditions were not significantly changed. The roles of the NAEA President, the Chief Inspector and regulatory inspectors as regulatory bodies have been further specified.

The duties of the individual appointed to the post of regulatory inspector are also established (Section 65).

#### *Chapter 10. Monitoring of the National Radiation Situation (new chapter)*

The new Act provides that the NAEA President is responsible for the monitoring of the national radiation situation, carried out through the Centre for Radiation Emergencies established within the NAEA. On the basis of such assessment, the NAEA President shall inform the public of the situation, in particular in relation to radioactive contamination levels, both under normal circumstances and during radiation emergencies (Section 80).

Principles governing the financing of stations and units carrying out radioactive contamination measurements and other services acting for the purposes of such assessments were established, including provisions governing the relationship between them and their hierarchical structure, and details concerning the duties of the NAEA President in this field.

#### *Chapter 11. Radiation Emergency Management (new chapter)*

There was no legislation on this subject previous to the adoption of the new Act, which provides that, in the event of an emergency, the operator shall organise the confinement of the emergency site and shall immediately notify the NAEA President and other relevant authorities (Section 83). The Act

empowers the operator, the region's governor or the Minister for the Interior, depending on the type of emergency (on-site, regional scale or national scale), to take actions aiming to eliminate the threat or its consequences (Section 84), including intervention measures (Section 89). Such measures shall consist of temporary relocation, sheltering, administration of stable iodine, and bans or restrictions on contaminated food and water consumption (Section 90). Costs of intervention measures and those related to the elimination of radiation emergency consequences shall lie with the operator of the nuclear facility causing the emergency (Section 93).

#### *Chapter 12. Civil Liability for Nuclear Damage (Chapter 9 of the 1986 Act)*

The new provisions take into account the requirements of the Vienna Convention on Civil Liability for Nuclear Damage, which Poland ratified on 23 January 1990, and those of the Protocol to Amend this Convention, which Poland signed on 3 October 1997. The Act provides for the exclusive liability of the operator of the nuclear installation where a nuclear accident takes place or to which it is related, with the exception of damage caused directly by war or military conflict (Section 101). If an accident occurs in the course of transport, the operator remains liable, unless otherwise stipulated in a contract with the consignee [Section 101(2)]. The Act fixes the liability limit of the operator at 150 million Special Drawing Rights (Section 102) and requires that he obtain financial security. The amount and type of the financial security, and its attached conditions shall be established by the Minister responsible for public finances. The Act furthermore establishes rules relating to the distribution of funds (Section 103). Whereas personal injury claims are not subject to a prescription period, compensation claims for nuclear damage to property or the environment shall be extinguished ten years after the date of the nuclear accident or three years after the date upon which the person suffering nuclear damage had knowledge or should have had knowledge of the damage and of the identity of the person liable (Section 105).

#### *Chapter 13. The President of the National Atomic Energy Agency*

The new Act removes the distinction between the tasks of the NAEA President and those of the NAEA itself, based on the presumption that the prescribed tasks are assumed by an organisation rather than a person, which then implements them through its bodies.

The Agency President's tasks were updated in light of the changes which came about in the regulations issued after 1986 and the additional tasks included in the new Act.

#### *Chapter 14. State-owned Public Utility "Radioactive Waste Neutralisation Plant"*

Under the 1986 Atomic Act, the responsibility for radioactive waste management was borne by the NAEA. The Experimental Department for Radioactive Waste Neutralisation within the Atomic Energy Institute, supervised by the NAEA President, was responsible for resolving all technical and technological issues concerning waste.

Radioactive waste and spent nuclear fuel management activities shall now be performed by a public utility distinct from the NAEA: the Radioactive Waste Neutralisation Plant. This Plant shall be significantly subsidised from the budget of the Ministry for Economy.

## *Chapter 15. Penal provisions*

Introduction of financial penalties instead of the existing penal provisions aims to reduce the time period between the occurrence of an irregularity and the punishment of the individual liable. The amount of the financial penalty is dependent upon the significance of the irregularity.

The text of this legislation will be reproduced in the Supplement to *Nuclear Law Bulletin* No. 68.

## **Spain**

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

#### *Royal Decree on Activities Comprising the Front End of the Nuclear Fuel Cycle (1999)*

Royal Decree No. 1464, which was adopted on 17 September 1999 and entered into force on 5 October 1999, liberalises activities relating to the production of nuclear fuel and substantially amends corresponding provisions contained in Royal Decree No. 2967 of 7 December 1979 on the Organisation of Activities in the Nuclear Fuel Cycle (see *Nuclear Law Bulletin* No. 25). The objective of this new Royal Decree is to regulate the front end of the nuclear fuel cycle, *i.e.* all stages before the use of nuclear fuel in a nuclear reactor, as well as to ensure the supply of electricity and the management of uranium until its final disposal.

Under the Decree, the National Uranium Undertaking (*Empresa Nacional del Uranio, Sociedad Anonima* – ENUSA) is authorised to engage in activities comprising the front end of the nuclear fuel cycle. The operators of nuclear installations are to ensure supplies of enriched uranium for a period of five years and are to store fresh nuclear fuel elements at their installations two months prior to refuelling. Operators shall also jointly constitute a stock of enriched uranium, up to the amount prescribed in the Ministerial Order issued on 17 April 2000.

## **Sweden**

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

#### *Amendment to the Nuclear Liability Act (2001)*

The Nuclear Liability Act of 8 March 1968 (the text of this Law is reproduced in the Supplement to *Nuclear Law Bulletin* No. 33; see also *Nuclear Law Bulletin* No. 56) which establishes the liability of operators of nuclear installations pursuant to the Paris Convention on Third Party Liability in the Nuclear Field and implements the provisions of the Brussels Supplementary Convention, was amended again on 7 March 2001. The amendments entered into force on 1 April 2001.

The maximum amount of the operator's liability is increased from 175 to 300 million Special Drawing Rights (SDRs) per incident.

In addition, the Act has been amended so that the aggregate amount available for compensation of nuclear damage is raised from 3 billion Swedish krona (SEK) to SEK 6 billion (approximately SDR 545 million) per incident. This aggregate amount comprises the liability amount of the operator, the funds available under the Brussels Supplementary Convention and public funds which the state is required to provide according to the Act.

The Swedish Parliament also authorised the government to make a declaration in accordance with the Recommendation of the OECD Council on the application of the Brussels Supplementary Convention in the Field of Nuclear Liability, adopted by the Council at its 793<sup>rd</sup> Session on 26-27 November 1992.

## **Switzerland**

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

#### *Increase in the amount of nuclear third party liability insurance (2000)*

By a Decision of the Federal Council of 4 December 2000, the Ordinance of 5 December 1983 on Third Party Liability in the Field of Nuclear Energy (see *Nuclear Law Bulletin* Nos. 23, 25, 29, 31, 33 and 49 and the Supplement to *Bulletin* No. 32) was again amended. This decision, which took effect on 1 January 2001, increases the amount covered by the Swiss Pool for Nuclear Insurance in respect of the private third party liability of nuclear installations from 700 million to 1 billion Swiss francs (CHF), plus CHF 100 million for interest and procedural costs.

As before, the Confederation provides insurance against extraordinary risks which private insurers are entitled to exclude from the cover they provide.

## **Ukraine**

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

#### *Decree establishing the State Nuclear Regulatory Committee of Ukraine (2000)*

On 5 December 2000, the President of Ukraine signed Decree No. 1303 on State Regulation of Nuclear and Radiation Safety, which was completed by a Presidential Order of March 2001. The Decree establishes the State Nuclear Regulatory Committee of Ukraine as the central executive authority for the regulation of nuclear activities in Ukraine. This new Committee, which is under the supervision of the Cabinet of Ministers, is an amalgamation of the former State Nuclear Inspectorate and the Nuclear Regulatory Department of the Ministry of the Environment and Natural Resources.

The Committee is empowered to establish criteria, requirements and conditions for the safe use of nuclear energy, to develop and promulgate safety rules and standards, to regulate the physical protection of nuclear installations and materials, radioactive waste and other ionising radiation sources, to issue permits and licences for conducting activities in the field of nuclear energy, and to monitor compliance with legislation governing nuclear and radiation safety.

## **United Kingdom**

### ***Non-Proliferation***

#### *Nuclear Safeguards Act (2000)*

This Act, which was adopted on 25 May 2000, implements the 1998 Additional Protocol to the 1968 Treaty on the Non-Proliferation of Nuclear Weapons. Under the Act, the Secretary of State may serve notice on any person requiring him to give the Secretary information for the purposes of the Additional Protocol. The Act also requires such a person to keep records of such information in his possession. The Secretary of State may make regulations aiming to identify persons who are in possession of information referred to in the Additional Protocol.

Where a person served with such a notice refuses or fails to give information required by the notice, or where there are reasonable grounds for believing that the Secretary of State is not in possession of all or any of the information specified, that any information may be found on any premises, or that a document is likely to be altered or destroyed, a duly authorised officer may enter the premises, if necessary by force, to search them. Powers of the authorised officer include the right to inspect anything and to sample any substance found on the premises.

The Act also secures the exercise of the IAEA's rights, in particular of the Agency inspector, under the Additional Protocol.

The text of this Act is available in English from the Secretariat of the Nuclear Energy Agency.

## **United States**

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

#### *Amendment to the Radiation Exposure Compensation Act (2000)*

The Radiation Exposure Compensation Act (RECA) of 15 October 1990 (see *Nuclear Law Bulletin* No. 47) was amended by Public Law No. 106-245, approved by the President on 10 July 2000.

RECA provides for payment of compensation to individuals who contracted certain diseases due to unintended exposure to radiation resulting from the United States nuclear weapons testing programme. The Act sets out a list of conditions to be met for compensation and a list of compensable cancers. The 2000 Amendment of RECA aims to expand the eligibility requirements for getting such compensation. It expands individuals' eligibility for claims, including certain uranium miners or millers, and adds new types of cancers to those cancers already covered by RECA.

RECA, as amended, establishes a 100 million US dollars (USD) fund (Section 3) from which indemnification is to be paid on the following bases:

- USD 50 000 to an individual who was physically present in an affected area for a period of at least one year between 21 January 1951 and 31 October 1958 or for the month of July 1962 and contracted one of the specified cancers;
- USD 75 000 to an individual who participated onsite in a test involving the atmospheric destination of a nuclear device and developed leukaemia; and
- USD 100 000 to an employee of a uranium mine or mill in a designated State between 1942 and 1971 who was exposed to a defined dose of radiation and developed lung cancer or another respiratory disease associated with radiation.

Only these facts need to be demonstrated to the Department of Justice. The claimant is not required to prove that the disease was caused by exposure to radiation.

Initially, a claim under RECA had to be filed within 6 years from the date of enactment of the Act. The 2000 Amendment extended the time limitation to 22 years from the date of enactment of this Amendment (Section 8).

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

#### *Amendments to NRC Export and Import Regulations (2000)*

The Nuclear Regulatory Commission (NRC) amended its Regulations pertaining to the export and import of nuclear equipment and materials, codified at 10 CFR Part 110, (see *Nuclear Law Bulletin* No. 56). These amendments, which entered into force on 22 December 2000, aim to reflect in particular the US nuclear non-proliferation policies, the US reporting obligations to the International Atomic Energy Agency, agreements for co-operation in the peaceful uses of nuclear energy, the export control recommendations of the Nuclear Suppliers Group and Zanger Committee.

The obligation to give prior notification of shipments of material of Canadian and Australian origin is now extended to all shipments of material. A new provision also requires licensees to notify the NRC in writing at least 40 days before the export of foreign-origin nuclear material or equipment, and prevents shipment of the material or equipment until authorised to do so by a NRC officer.

The Amendment revises the list of countries to which exports may go under a general licence; such list now includes Bulgaria, Czech Republic, Latvia, Lithuania, New Zealand and Romania. The Amendment adds Sudan to the list of destinations embargoed by the United States and adds Belarus, Cyprus, Latvia, Slovenia and Turkey as new Nuclear Supplier Group members.

#### *Amendment to NRC Regulations governing the licensing of special nuclear material (2000)*

This Amendment, which entered into force on 18 October 2000, makes a number of changes to the Regulations governing domestic licensing of special nuclear material, codified in 10 CFR Part 70. The Amendment establishes performance requirements, requires licensees to perform an integrated safety analysis to identify potential accidents at the facility, and requires implementation of measures

to ensure that items relied on for safety are available and reliable. Although the Amendment requires safety bases to be maintained and changes to be reported to the NRC, it also allows licensees to make certain changes to their safety programme and facilities without prior NRC approval.

Licensees affected by this Amendment include those who are authorised to possess a critical mass of special nuclear material and are engaged in one of the following activities: enriched uranium processing; fabrication of uranium fuel or fuel assemblies; uranium enrichment; enriched uranium hexafluoride conversion; plutonium processing; fabrication of mixed-oxide fuel or fuel assemblies; recovery of special nuclear material; or any other activity involving a critical mass of special nuclear material which the NRC determines could significantly affect public health and safety or the environment.

#### *Amendments to NRC Regulations governing the requirements for certain generally licensed industrial devices containing by-product material (2001)*

The objectives of these Amendments, made to 10 CFR Parts 30 to 32 and which entered into force on 16 February 2001, are to allow the NRC to better track certain general licensees and the devices they possess, and to better ensure that such licensees are aware of and understand the requirements for the possession of devices containing by-product material. A generally licensed device usually consists of radioactive material, contained in a sealed source, within a shielded housing. The device is designed with inherent radiation safety features so that it can be used by persons with no radiation training or experience.

The Amendments include provisions for a registration process and set out a registration fee which applies to a limited number of general licensees. The reporting, record-keeping, and labelling requirements for specific licensees who distribute these licensed devices have also been modified.

## **Uzbekistan**

### ***Radiation Protection***

#### *Law on Radiation Protection (2000)*

This Law, adopted on 31 August 2000, provides a legal framework for ensuring the protection of human life and health, property and the environment against the risks of ionising radiation (Section 1).

It sets out the three basic principles of radiation protection: dose limitation, justification and optimisation (Section 4).

Under the Law, the public has the right to be compensated for personal and material damage due to radiation, to receive full and objective information on the radiation levels in the environment and in consumer goods, and to participate in discussions related to radiation protection (Section 5). Special protections are granted to citizens living in territories where exposure to radiation would result in doses that are higher than the limits specified in the norms (Section 6).

The Cabinet of Ministers is responsible for ensuring radiation protection by regulating in respect of compliance with radiation protection requirements, licensing of activities involving radiation sources, certification of agricultural and food products, fodder, drinking water, building materials and dose measurement equipment, and the assessment of radiation contamination (Section 7).

The Agency on Safety in Industry and Mining, the Ministry of Health, the State Committee of Conservation of Nature and the State Customs Committee all have responsibilities for ensuring radiation protection. Production controls are carried out by the users of ionising radiation sources and social controls are imposed by non-governmental and non-commercial organisations as well as by private citizens (Section 8).

Research and development activities involving radiation, the design and manufacture of radiation sources, the construction and production of radiation equipment, mining, and the production, reprocessing, use, storage, transport, and disposal of ionising radiation sources are all subject to licensing (Section 10). Furthermore, the manufacture, storage and transport of raw foodstuffs, food products, and drinking water must comply with radiation protection requirements (Section 16). Isolation of radioactive waste during its storage and disposal must also be ensured (Section 21).

Radiation protection is ensured *inter alia* through the monitoring and control of personal doses received, by requiring compensation for damage caused by ionising radiation, by regulating the export and import of radiation sources, through medical supervision, by providing information to the public on radiation levels and radiation protection measures, and by clean-up of contamination following a radiation accident in the territories affected (Section 12). The users of radiation sources are required to: observe radiation protection requirements, develop and implement measures to ensure radiation protection, assess radiation levels at workplaces, in protected and controlled zones (Section 20), and at disposal facilities. Users must also monitor and record personal doses received by their personnel, carry out training programmes, inform their personnel of personal dose levels and radiation exposures at workplaces, and ensure medical monitoring of their personnel (Section 17).

Regarding emergency preparedness, operators are required to protect the public and the environment against the effects of a radiation accident by establishing a list of potential emergencies and their consequences, by preparing an emergency plan, and by providing the means for mitigating the consequences of a radiation accident (Section 23). In the event of a radiation emergency, users of radiation sources are required, *inter alia*, to take measures to protect workers and the public from the consequences of the accident, inform state bodies, provide medical assistance to victims, and prevent the release of radioactive substances into the environment (Section 24).

