

# NATIONAL LEGISLATIVE AND REGULATORY ACTIVITIES

## Australia

### *Radiation protection*

#### *National Directory for Radiation Protection (2004)*

At its meeting of 29 July 2004, the Australian Health Ministers' Conference (AHMC) endorsed the 1<sup>st</sup> Edition of the National Directory for Radiation Protection (NDRP)\* as the uniform national framework for radiation protection in Australia. The development of this Directory was launched in August 1999 by AHMC with a view to achieving uniformity in radiation protection practices between jurisdictions. AHMC also agreed that upon approval of the provisions of the Directory, the regulatory elements of the Directory shall be adopted in each jurisdiction as soon as possible, using existing commonwealth/state/territory regulatory frameworks.

The NDRP provides:

- uniform requirements for the protection of people and the environment against exposure or potential exposure to ionising and non-ionising radiation;
- uniform requirements for the safety of radiation sources, including provision for the national adoption of codes and standards;
- clear regulatory statements for adoption by the commonwealth, states and territories into their legislation.

The development of the NDRP involved full consultation with stakeholders including: consultation within the National Competition Policy (NCP) Review in March 2001, government consultation within each of the jurisdictions in February 2002; the release of a discussion draft for public consultation from December 2002 to January 2003; and preparation of a Regulatory Impact Statement (RIS) and a further period of public comment on both the RIS and the consultation draft. This second public comment period took place from March to April 2004.

The NDRP will be completed in stages therefore some sections of the current edition do not contain details of radiation protection requirements or guidelines. Where this is the case, a short commentary has been provided on what can be expected in future editions of the NDRP. This edition will not apply to mining and mineral processing industries, which would require further consultation with the industry, completion of the Code of Practice on mining and mineral processing and

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\* This document can be downloaded from ARPANSA's Web site at the following URL:  
[www.arpansa.gov.au/rps6.htm](http://www.arpansa.gov.au/rps6.htm)

development of a process for consideration of exemptions and specification of incident reporting requirements in the industry.

The Directory is made up of three parts. Part A sets out the agreed overall framework and general principles for radiation protection in Australia, including the justification of practices; limitation of radiation doses and optimisation of protection and safety; management requirements for the establishment of a safety culture; technical requirements to ensure that radiation sources remain within control and are safe; processes for verification of safety and security; risk management principles and intervention actions. Legislation must include the objective of protecting the health and safety of people and the environment from the harmful effects of ionising and non-ionising radiation.

Part B of the Directory contains the uniform regulatory elements, which are to be adopted by each jurisdiction, within its particular regulatory framework. It specifies the scope of regulation by setting out exemptions and exclusions from the regulation. It also gives some guidelines to implement the authorisation procedure, as well as to adopt Codes and Standards.

Part C of the Directory contains Guidance for Best Practice that will assist regulators in adopting consistent approaches, but is not regulatory in nature. This part, which will be further developed in the next edition of the NDRP, is limited at present to intervention in radiological emergencies and chronic exposure situations, and on patient discharge recommendations.

Schedules to the Directory provide additional detailed requirements that form an integral part of the uniform regulatory elements of the Directory. They relate *inter alia* to dose limits, categories of non-ionising radiation, radiation facilities, exemption levels, competency requirements for authorisation to use radiation sources to specified practices, requirements for licensing specific practices and the national incident reporting framework.

Annexes to the Directory provide advisory material and background information on the provisions of the Directory.

## **Cameroon**

### ***Organisation and structure***

#### *Decree on the National Radiation Protection Agency (2002)*

This Decree on the establishment, organisation and functioning of the National Radiation Protection Agency was adopted on 31 October 2002 in implementation of the 1995 Act on Radiation Protection (see *Nuclear Law Bulletin* Nos. 53 and 56).

The National Radiation Protection Agency is a public administrative body with legal personality and financial autonomy. It is placed under the technical supervision of the Ministry in charge of Scientific Research and under the financial supervision of the Ministry for Finance. The Agency is responsible for ensuring the protection of persons, property and the environment against ionising radiation. To this end, it proposes radiation protection standards and monitors compliance with the relevant regulations inside ionising radiation facilities. It is also responsible for establishing emergency plans.

The decree sets out the organisation and functioning of the Agency which comprises two bodies. The Board of Directors is composed of 12 members including the chairperson, all of whom are

designated by presidential decree. It has full powers to administer the Agency, define and establish its general policy and assess its management within the limits established by its statutes. It can also assign certain powers to the director general who reports back on the exercise of such powers. The chairperson of the Board convenes and chairs meetings of the Board which take place twice a year.

The Directorate General, the second Agency body, is headed by a director general designated by presidential decree. The director general is in charge of managing and implementing general policy of the Agency under the control of the Board of Directors to whom he/she reports. The director general is in charge of the technical, administrative and financial management of the Agency.

The financial resources of the Agency, which include public subsidies, are public funds managed in accordance with state financial rules. The Agency accounts are controlled by an accountant and an auditor.

## **Chinese Taipei**

### ***Radiation protection***

#### *Nuclear Emergency Response Act (2003)*

This act, promulgated on 24 December 2003 by presidential decree, is aimed at establishing an emergency response system in the event of a nuclear accident and at strengthening emergency response functions in order to ensure the safety and health of the public and to protect their property.

The first of the seven chapters of this act establishes general principles. The Atomic Energy Council (AEC) is designated as the competent authority at central government level; at local level the municipal government and the county (city) government are responsible for emergency planning zones.

Chapter II provides further details on the organisation and responsibilities of the different bodies involved in emergency response. The competent central authority – the AEC – classifies nuclear accidents according to their gravity and lays down response and notification provisions accordingly. In the case of an accident, the AEC shall activate the National Nuclear Emergency Response Centre and the Radiation Monitoring and Dose Assessment Centre. The National Nuclear Emergency Response Centre shall *inter alia*:

- plan and supervise the implementation of response measures;
- notify the local authorities and the Ministry of Defence to activate other assistance mechanisms;
- make information available to the public; order public protection actions.

The local competent authority shall activate a Regional Nuclear Emergency Response Centre which will work in tandem with the National Centre on the above topics.

The Radiation Monitoring and Dose Assessment Centre is responsible for carrying out radiation measurements of persons, vehicles and the environment. It shall also evaluate the public radiation doses and propose protective measures accordingly.

There is also a Nuclear Emergency Support Centre activated by the Ministry of National Defence which carries out decontamination operations, carries out radiation measurements, and assists the regional centres in carrying out evacuation, transportation, sheltering, relocation, distribution of medical care and/or iodine.

Chapter III provides for the establishment of emergency preparedness measures, including an Emergency Planning Zone (EPZ) in the vicinity of a nuclear facility, which shall be reviewed and revised periodically. It establishes the responsibilities of the central competent authority (the AEC), the regional competent authorities and the licensees in respect of the definition and implementation of an Emergency Response Basic Plan and “local” response plans, all of which are submitted to the executive yuan for approval. Exercises and training are to be organised within the EPZ in co-operation with local authorities and the public.

Chapter IV of the act governs emergency response measures. Upon notification of a nuclear accident or risk of same, it provides for the activation of the National Nuclear Emergency Response Centre and the Radiation Monitoring and Dose Assessment Centre. It states that the government shall inform neighbouring countries and the competent international organisations, and shall request assistance where necessary.

A Nuclear Emergency Recovery Committee may be established under Chapter V to, *inter alia*, establish measures of recovery and supervise their implementation, notify government agencies and the licensee of the measures which should be implemented, coordinate staffing and resources for recovery.

Penal provisions, set out in Chapter VI, provide for penalties from 200 000 New Taiwan Dollars<sup>1</sup> (TWD) to TWD 5 million<sup>2</sup> in respect of violation of the provisions of this act.

Finally, Chapter VII provides that the Atomic Energy Council shall collect an annual premium from the licensees of nuclear installations in order to set up a Nuclear Emergency Response Fund to support response operations.

An English version of this act is available from the website of the AEC at the following URL: [www.aec.gov.tw/english/](http://www.aec.gov.tw/english/)

## **Estonia**

### ***Radiation protection***

#### *Radiation Act and its implementing regulations (2004)*

A new Radiation Act was adopted on 24 March 2004 and entered into force on 1 May 2004. It was proclaimed by the president on 7 April 2004 and was published in the State Gazette on 16 April 2004. This act repeals and replaces the Radiation Act of 1997 (see *Nuclear Law Bulletin* No. 60; the text of this act was reproduced in the Supplement to NLB No. 61).

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1. This amount is equivalent to approximately EUR 4 800.
  2. This amount is equivalent to approximately EUR 120 000.

The objective of the act is to provide basic safety standards for the protection of persons and the environment against the dangers arising from ionising radiation and to establish the rights, obligations and liability of persons who use ionising radiation.

This act regulates radiation practices and activities involving natural radiation sources where such practices or activities may lead to a significant increase in the exposure of workers or members of the public. It also governs intervention in the event of a radiological emergency or in cases of lasting exposure resulting from the after-effects of a radiological emergency or a past practice. The act does not apply to exposure to radon in dwellings, to cosmic radiation prevailing at ground level or to aboveground exposure from radionuclides naturally present in the earth's crust.

An English translation of this legislation is currently underway and shall be published in a future edition of the *Nuclear Law Bulletin*.

The Radiation Act provides for adoption of a total of 15 implementing regulations. To date, nine of these regulations have been adopted:

- Regulation No. 41 of 29 April 2004 of the Minister of Environment governing the Procedure for Issuing Licences for Activities Involving Radiation, published in the State Gazette on 7 May 2004, entered into force on 10 May 2004;
- Government Regulation No. 163 of 30 April 2004 on the Bases for Calculation of Exemption Values, and the Exemption Values for Radionuclides, published in the State Gazette on 4 May 2004, entered into force on 7 May 2004;
- Government Regulation No. 193 of 17 May 2004 on Effective Dose and Equivalent Dose Limits for the Lens of the Eyes, Skin and Extremities for Exposed Workers and Members of the Public, published in the State Gazette on 26 May 2004, entered into force on 29 May 2004;
- Government Regulation No. 243 of 8 July 2004 on Procedure Specifications for Processing Documents relating to Import, Export and Transit of Radioactive Waste Based on Country of Origin and Destination, published in the State Gazette on 16 July 2004, entered into force on 19 July 2004;
- Government Regulation No. 244 of 8 July 2004 on Statutes for the Maintenance of the State Dose Register of Exposed Workers, published in the State Gazette on 16 July 2004, entered into force on 19 July 2004;
- Regulation No. 86 of 8 July 2004 of the Minister of Environment on Requirements for Exposed Workers' Radiation Safety Training, published in the State Gazette on 20 July 2004, entered into force on 23 July 2004;
- Regulation No. 93 of 14 July 2004 of the Minister of Environment on Intervention and Action Levels, and Emergency Exposure Guidance in a Radiological Emergency, published in the State Gazette on 27 July 2004, entered into force on 30 July 2004;
- Regulation No. 110 of 27 August 2004 of the Minister of Environment on Requirements for the Results of Individual Monitoring of Outside Workers, and for Formalising such Results, and for the Standard Format for the Dose Chart of Outside Workers, published in the State Gazette on 9 September 2004, entered into force on 12 September 2004;
- Regulation No. 113 of 7 September 2004 of the Minister of Environment on Requirements for the Rooms Where Radiation Sources are Situated and for Labelling

Thereof and for the Working Rules for the Radiological Work Performance, published in the State Gazette on 16 September 2004, entered into force on 19 September 2004.

## France

### *Radiation protection*

#### *Act on Public Health Policy (2004)*

This Act No. 2004-806 of 9 August 2004 provides, *inter alia*, for the establishment of a team of radiation protection inspectors.

Radiation protection inspectors are nominated by the administrative authority amongst:

- inspectors of installations classified for environmental protection purposes;
- administrative officers responsible for Mine and Quarry Surveillance;
- administrative officers of state departments in charge of environment, industry and health, as well as public bodies under the supervision of the Ministers for the Environment, Industry and Health with powers in the field of radiation protection;
- administrative officers of the Institute for Radiation Protection and Nuclear Safety (*Institut de radioprotection et de sûreté nucléaire*).

As regards installations and activities connected with national defence, inspections are carried out by officers designated by the Minister of Defence or the Minister for Industry depending on their respective responsibilities.

Inspectors are required to check compliance with provisions on the protection of workers and the public against the dangers of ionising radiation. As regards workers, inspectors exercise their professional responsibilities in tandem with labour inspectors.

Radiation protection inspectors are certified and subject to privilege and confidentiality requirements. They have access to sites, place, installations and means of transport subject to the regulations which they control between 8 a.m. and 8 p.m., or outside this timeframe when public access is authorised or when an activity is taking place. Irrespective of the criminal proceedings which can be initiated when access is denied, they can request authorisation to enter from the chairperson of the *Tribunal de grande instance* (higher civil court).

Inspectors can also ask for notification of all documents relevant for the accomplishment of their tasks in whatever format, make copies, take samples and ask for any necessary information or justification. Inspectors can issue tickets (*procès-verbaux*) in respect of infringements of the relevant legislation and regulations. Such tickets shall have the force of law unless proof of the contrary is provided. The public prosecutor is informed in advance of any planned actions to track down offenders and may oppose them. S/He must also be informed without delay of any infringements noted during their inspections.

*Order Establishing Special Conditions for the Use of Industrial Radiography Devices Using Gamma Radiation (2004)*

This Order of 2 March 2004 applies to industrial radiography devices using gamma radiation, radiographic controls carried out using these devices, and more generally to all operations affecting these devices. It prohibits the use of some of these devices and establishes conditions governing the assembling and dismantling, overhaul, transport, monitoring, use and storage of such devices.

Furthermore, other specific provisions govern the opening of a site subject to radiographic control which is subject to a notification signed by the owner of a licence delivered in conformity with Article L.1333-4 of the Public Health Code.

Finally, the order sets out special conditions governing the use of radioactive sources during radiographic control carried out using devices with gamma radiation.

*Amendment to the Order on the Organisation of a National Network to Measure Radioactivity in the Environment (2004)*

This Order of 3 March 2004 amends Sections 2 and 13 of the Order of 17 October 2003 on the organisation of a national network to measure radioactivity in the environment (see *Nuclear Law Bulletin* No. 73). Section 2 establishes the composition of the pilot committee, which provides its opinion on the general national policy established by the General Director for Nuclear Safety and Radiation Protection (*Directeur général de la sûreté nucléaire et de la radioprotection*). Section 13 sets out the composition of the certification commission. This commission takes a decision on the basis of a request for certification submitted by the management of the laboratories mentioned in Article R.1333-11 of the Public Health Code. These laboratories may be certified by the Minister for the Environment and the Minister for Health to carry out analysis of radioactivity in the environment which they then transmit to the national network.

*Order on the General Regime governing Licences and Declarations as defined in Chapter V-I "Ionising radiation" of the Public Health Code (2004)*

This order adopted on 14 May 2004 provides details on procedures for notification and licensing or renewal of licences as established in the Public Health Code for activities listed in Article R. 1333.24 and which may result in a risk of exposure of persons to ionising radiation (use, possession of radionuclides for medical use, biological analysis or biomedical research; the use of electrical devices emitting ionising radiation for therapeutic purposes).

The application for a licence shall be addressed to the General Directorate for Nuclear Safety and Radiation Protection (*Direction générale de la sûreté nucléaire et de la radioprotection – DGSNR*) on a standard DGSNR form and accompanied by supporting documents [Article R.1333-25 of the Public Health Code] as listed on the standard form. The application shall be signed by the head of the establishment and by the person in charge of the nuclear activity concerned. The application may involve the participation of the person in charge of radiation protection.

Notification requirements apply to the use of electrical devices emitting X-rays for dental and medical use. The notification should be addressed to the prefect of the department where the devices are established. The notification is registered on a standard DGSNR form and must be renewed every five years.

The order repeals Sections 1 to 9 of the Order of 23 April 1969, as amended, laying down the procedure for approval of equipment and installations using ionising radiation for medical purposes (see *Nuclear Law Bulletin* Nos. 4 and 22).

### ***Regime of radioactive materials***

#### *Order Setting out Technical Conditions for the Accounting of Nuclear Materials (2004)*

This Order of 16 March 2004 repeals the Order of 16 March 1994 (see *Nuclear Law Bulletin* No. 54) and sets out new procedures for the implementation of Order No. 81-512 of 12 May 1981 on the protection and control of nuclear materials (see *Nuclear Law Bulletin* No. 30).

This order specifies the role of the Institute for Radiation Protection and Nuclear Safety (*Institut de radioprotection et de sûreté nucléaire – IRSN*) regarding the accounting of nuclear materials. The main provisions of the order relate to:

- the quality management system: Section 1 provides that the licensee shall set up a quality management system in compliance with international standards in this field, which includes establishing a handbook and a quality programme or plan;
- the day book: the order supplements the information contained in the day book. In particular, the chronological entries shall include the reference of the document of the accounting declaration sent to the IRSN Directorate for Nuclear Defence Expertise;
- role of the IRSN: the IRSN Directorate for Nuclear Defence Expertise, under the authority of the Ministry for Industry, is in charge of centralising the accounting of nuclear materials within a national inventory system, and defining rules to be applied by the licensee to ensure this task is completed. The licensee shall send accounting data relating to any entry in its day book or any amendment thereto to the national inventory system. The documents containing accounting data are sent to the Directorate for Nuclear Defence Expertise on the same day. The format and manner in which the licensee sends this data are determined by the Directorate for Nuclear Defence Expertise, after consultation with the licensee, with special consideration given to the IT procedures and equipment used by the body or installation concerned, in order to ensure the quickest possible transmission. It should be noted that a detailed report on the annual physical inventory of nuclear materials carried out by the licensee is addressed to the Directorate for Nuclear Defence Expertise, at the latest within 45 days following the date on which the physical inventory is finished;
- external movements of materials: Section 12 of the order provides some additional requirements to those imposed on the sender. The latter shall in particular implement measures to ensure he/she knows the quantities and characteristics of the nuclear materials being sent, and that documents proving this knowledge are retained. If nuclear materials are shipped under seal, the sender is responsible for the quantities and characteristics of the nuclear materials until the seals are broken;
- documents which the licensee must possess: the order slightly amends the list of documents that the licensee shall possess in order to ensure the traceability of operations carried out on nuclear materials;
- retaining of documents: the order takes up most of the provisions contained in the former 1994 Order relating to the retaining of documents. However, it should be noted that the addressee may carry out controls after a five year period from the date on which nuclear

materials were shipped. In this case, the addressee informs the sender which was licensed at the time of the shipment, at least three months before the end of the five year period, so that the latter may take any necessary measures to retain information on shipped materials until the addressee agrees on the quantities and characteristics of nuclear materials received.

## **Gabon**

### ***Radiation protection***

#### *Act Setting out Guidelines in Respect of the Prevention and Protection Policy Applicable to Ionising Radiation (2001)*

This act was adopted on 22 June 2001. It aims to promote a policy of prevention and protection against ionising radiation by establishing administrative, technical, and radiological safety bodies and by the peaceful and justified use of sources and ionising radiation generators. The act applies to all activities or practices which use sources or ionising radiation generators, as well as to chronic exposures or exposures due to intervention measures following a radiological emergency.

The act is divided into four chapters governing respectively the act's purpose, scope and definitions; the organisation of radiation protection; sanctions (reference is made to the appropriate regulations implementing the act); and final and transitional protections.

Chapter II is divided into two sections, covering the establishment of two bodies: the Commission for Radiological Safety and Prevention (*Commission de prévention et de sûreté radiologique* – CNPSR), responsible for issuing recommendations on national policy for protection against ionising radiation; and the National Centre for the Prevention of and Protection against Ionising Radiation (*Centre national de prévention et de protection contre les rayonnements ionisants* – CNPPRI), set up to establish a national radiation protection infrastructure.

The CNPPRI is a public body with legal personality and financial autonomy; it is under the supervision of the Ministry for Energy, and its annual budget is accounted for within the state budget.

The CNPPRI's specialised personnel make up technical support services in operational radiation protection and a national radiological emergency network. The CNPPRI is authorised to develop national regulations for radiation protection and the management of radioactive waste and to take the necessary preventive measures to reduce to the lowest level possible any risk associated with these sources. It is also empowered to deliver licences in respect of import, possession and use of ionising radiation sources. For this purpose and on a provisional basis, each individual or legal entity carrying out such activities is required to make a declaration to the CNPSR to be authorised to pursue their activities.

#### *Order establishing the National Centre for the Prevention of and Protection against Ionising Radiation (2002)*

This order, which was adopted on 16 October 2002 and entered into force on the same date, established the National Centre for the Prevention of and Protection against Ionising Radiation (*Centre national de prévention et de protection contre les rayonnements ionisants* – CNPPRI) and set up a Pilot Committee for the activities of this Centre. The Pilot Committee is entrusted to develop a

regulatory framework for radiation protection, to control and inspect all practices involving ionising radiation sources, and to carry out radiological control of former mines in Gabon.

## **Germany**

### ***Radioactive waste management***

*Amendment to the Ordinance on Advanced Financial Contributions for Final Disposal Repositories (2004)*

The 1982 Ordinance on Advance Financial Contributions towards Construction of Federal Installations for Safe Containment and Disposal of Radioactive Waste as amended (see *Nuclear Law Bulletin* Nos. 30, 39, 46 and 68) was further amended by the Third Amending Ordinance of 6 July 2004 [*Bundesgesetzblatt* 2004 I p. 1476]. The main change consists of a modification to the method used to calculate the contributions due from those who are obliged to pay advance contributions under the ordinance [see in particular amended Sections 2(1), 4, 6, 7, 9 and 11].

### ***Transport of radioactive materials***

*Ordinances to Amend the RID Regulations (2003, 2004)*

The 11<sup>th</sup> and 12<sup>th</sup> Ordinances to Amend the International Order on the Carriage of Dangerous Goods by Rail (RID) were published in *Bundesgesetzblatt* 2003 II p. 1966 and *Bundesgesetzblatt* 2004 II p. 1434. The 2003 amendment covers the use and operation of suction/pressure tanks for waste. The 2004 amendment contains in its annex the entire RID Regulations valid as of 1 January 2005.

*Ordinance on the Transportation of Dangerous Goods by Road and Rail (2004)*

The Ordinance on the Transportation of Dangerous Goods by Road and Rail in its consolidated 2003 version (see *Nuclear Law Bulletin* No. 73) was amended by the First Ordinance of 24 March 2004 on the amendment of the Dangerous Goods Ordinance Road and Rail [*Bundesgesetzblatt* 2004 I p. 485]. This ordinance was also amended by Section 5 paragraph 1 of the Act on the Adapting of Competences in Genetic Engineering Law of 22 March 2004 [*Bundesgesetzblatt* 2004 I p. 455 (457)].

### ***Regulations on nuclear trade (including non-proliferation)***

*Amendments to the 1961 Foreign Trade Act*

The 1961 Foreign Trade Act (see *Nuclear Law Bulletin* Nos. 46, 54, 59 and 73) was amended by Section 4(65) of the Act to Modernise Accounting Law of 5 May 2004 [*Bundesgesetzblatt* 2004 I p. 718 (845)]; by Section 3 of the Act of 25 June 2004 to Amend the Provisions on Old Debts of Agricultural Enterprises and of Other Acts [*Bundesgesetzblatt* 2004 I p. 1383 (1387)]; by the 11<sup>th</sup> Act to Amend the Foreign Trade Act and the Foreign Trade Ordinance of 23 July 2004 [*Bundesgesetzblatt* 2004 I p. 1859]; and by Section 12(g) of the First Law to Modernise the Court System of 24 August 2004 [*Bundesgesetzblatt* 2004 I p. 2198 (2208)]. Section 2 of the Amendment of 23 July 2004 also amends the Foreign Trade Ordinance. The 2004 amendments of the Foreign Trade Act and of the

Foreign Trade Ordinance mainly deal with the acquisition of weapons suitable for use in wars and with the handling of restricted data and information.

#### *Amendments to the Import List (2004)*

The 149<sup>th</sup> Ordinance to Amend the Import List of 12 July 2004 is published in *Bundesanzeiger* 2004 p. 15237. The amendments adapt the ordinance to EU Law related to the liberalisation of imports.

#### *Amendments to the Export List (2004)*

The 103<sup>rd</sup> Ordinance to Amend the Export List is published in *Bundesanzeiger* 2004 p. 11405. This ordinance only contains minor amendments and is not relevant for the export of nuclear substances.

## **Ghana**

### ***Organisation and structure***

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

The Atomic Energy Commission Act, adopted on 27 November 2000, repeals and replaces the 1963 Act establishing the Atomic Energy Commission as amended (see *Nuclear Law Bulletin* Nos. 7 and 52). It modifies the composition of the Atomic Energy Commission, which now comprises a chairperson, the director-general of the Commission and five other members all of whom, with the exception of the director-general, shall be appointed for a period of five years (renewable) by the president acting in consultation with the Council of State.

The Commission is responsible *inter alia* for:

- making proposals to government for legislation in the field of radiation protection and radioactive waste management;
- advising the government on questions relating to nuclear energy, science and technology;
- establishing research institutes; encouraging and engaging in R&D;
- monitoring the implementation of radiation protection measures;
- maintaining relations with the IAEA and other international and national organisations in the field.

## Iceland

### *Radiation protection*

#### *Act on Radiation Protection (2002)\**

A new Radiation Protection Act was adopted in Iceland on 8 April 2002. This legislation repeals and replaces the 1985 Radiation Protection Act (see *Nuclear Law Bulletin* No. 41).

The objective of this act is to ensure adoption of the necessary safety measures to protect against radiation from radioactive materials and radiological equipment, and to limit the detrimental effects of such radiation. Exposure to radiation resulting from practices covered under this act is to respect the ALARA principle. The act applies to:

- practices that can cause radiation exposure e.g. the production, import, export, delivery, possession, installation, use, handling and disposal of radioactive substances and radiological equipment;
- practices that result in increased levels of natural radiation in the environment;
- monitoring and research in respect of radioactive substances in the environment and foodstuffs;
- the radiological aspects of measures concerning radiological or nuclear emergencies.

Chapter II of the act provides that the Icelandic Radiation Protection Institute, under the auspices of the Ministry for Health and Social Security, is responsible for implementing radiation safety measures. It shall monitor and supervise the implementation of this act and its implementing rules and regulations, carry out inspections and research, monitor workers' exposure and provide training in radiation protection for workers, assess exposure of patients and that of the general public.

Chapter III provides that the production, import, ownership, storage, delivery or disposal of radioactive substances shall be subject to licensing by the Icelandic Radiation Protection Institute, with the exception of small quantities as determined by exemption levels. Any new types of practices that may cause radiation exposure are required to be assessed with regard to the economic, social or other benefits that they may bring as compared to their detrimental effects (Chapter IV). Chapter V sets out requirements governing the use of radioactive substances and radiological equipment, including the appointment of a designated supervisor for ionising radiation practices, an appropriate internal control scheme and the necessary emergency response measures.

Chapter VI focuses specifically on radiation protection in the workplace, reiterating the ALARA principle and providing for appropriate monitoring of workers' exposure, dose registers, information and training, and medical control. Chapter VII provides that medical exposure shall be subject to the justification and ALARA principles, and shall be protected by quality assurance and control. Chapter VIII governs the inspection of radiological equipment and radioactive substances and Chapter IX covers installation, modifications and maintenance of radiological equipment. The final Chapter provides that infringements of this act are subject to a fine or imprisonment of up to two years, and further provides that an implementing regulation shall be adopted to provide more detailed information on the application of this legislation and on the activities of the Icelandic Radiation Protection Institute.

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\* The text of this act is reproduced in the Supplement to this edition of the *Bulletin*.

## **Ireland**

### ***Regulations on nuclear trade***

#### *Containment of Nuclear Weapons Act (2003) and Regulations (2004)*

The Containment of Nuclear Weapons Act (No. 35 of 2003) provides the legislative basis to enable Ireland to implement its obligations under the Protocol Additional to the 1977 Nuclear Safeguards Agreement between the 13 Non-Nuclear Weapon States of the European Atomic Energy Community, the European Atomic Energy Community and the International Atomic Energy Agency (IAEA). The Safeguards Agreement was made in implementation of Article III (1) and (4) of the Treaty on the Non-Proliferation of Nuclear Weapons. The Safeguards Agreement is the means by which the IAEA verifies, through a system of inspections and other means that Contracting Parties to the agreement are acting in compliance with their international non-proliferation obligations. The protocol is aimed at strengthening the effectiveness of the safeguards system by broadening the scope of the agreement to include the collection and reporting by Contracting Parties of information in relation to specified nuclear and non-nuclear materials relating to the nuclear industry.

The Containment of Nuclear Weapons Act, 2003 Regulations, 2004 (Statutory Instrument No. 123 of 2004) provides the regulatory basis to enable Ireland to implement these same obligations.

## **Italy**

### ***Radioactive waste management***

#### *Act Restructuring the Energy Sector (2004)*

This Act No. 239 was adopted on 23 August 2004 and published in the Official Journal on 13 September 2004. It aims to implement recent EU legislation governing energy as well as to address issues relating to the management of nuclear waste which were not covered by Decree-Law No. 368 of 24 December 2003 (see *Nuclear Law Bulletin* No. 73).

As regards nuclear waste management, the act provides that:

- the Company for the Management of Nuclear Installations (*Società per la Gestione degli Impianti Nucleari* – SOGIN) will take over the safe temporary storage of category III waste (high-level radioactive waste) at sites to be identified according to the same procedure envisaged for waste categories I and II. An ad hoc commissioner, designated by the Prime Minister, is responsible for confirming site selection, in agreement with the Ministers of Internal Affairs and the Environment, once the Environment Ministry has carried out an environmental impact assessment and the National Environmental Protection Agency has provided its opinion on the site selection;
- a site for the final repository of category II (medium-level) radioactive waste shall be identified as a matter of urgency;
- a decree of the Prime Minister shall define the criteria and conditions to cover the relevant costs. SOGIN shall work towards the reduction of costs by optimising the use of sites and infrastructures, carrying out research and providing assistance;

- producers and holders of waste shall transfer their waste to the above-mentioned site or repository according to waste category. The timetable and conditions of such transfer shall be set out jointly by the Ministries of Industry and the Environment.

#### *Ordinance on Radioactive Waste Management (2004)*

This ordinance was adopted on 7 May 2004 to extend the validity of the decree adopted on 7 March 2003 (see *Nuclear Law Bulletin* No. 73). This ordinance governs the safe storage of radioactive material at nuclear power stations and at certain nuclear sites. The president of SOGIN also adopted, in June 2004, an ordinance relating to the timetable of activities required for the storage of such radioactive material.

## **Latvia**

### ***Radiation protection***

#### *Regulations on Procedural Requirements for the Construction of Radiation Facilities (2004)*

On 13 July 2004, the Cabinet approved these regulations which establish requirements with regard to the acceptance of the design and the facility itself before its commissioning. These regulations only apply to “ionising radiation facilities of state significance” as defined in the 2000 Act on Radiation Safety and Nuclear Safety (see *Nuclear Law Bulletin* No. 67; the text of this act is reproduced in the Supplement to that NLB). The regulations aim to mitigate problems with local building inspectors, who do not have knowledge regarding radiation facilities and therefore are not qualified to make decisions on safety-relevant issues. A commission for such authorisations is therefore established and shall be composed from representatives from all relevant authorities, including representatives of local municipalities.

### ***Regime of radioactive materials***

#### *Regulations on the Procedure Governing Activities Involving Nuclear Materials, Related Materials and Equipment (2003)*

These regulations were approved by the government on 22 April 2004. They replace the 2002 Regulations on the same subject and aim to ensure implementation of EU regulations on safeguards into national legislation.

### ***Regulations on nuclear trade***

#### *Act on Circulation of Strategic Goods (2004)*

On 7 April 2004, the parliament adopted a new Act on Circulation of Strategic Goods, which establishes an updated system for the control of export, import and transit of dual-use goods and technologies under several international regimes related to the Nuclear Non Proliferation Treaty and arms control (e.g. Nuclear Suppliers Group, Australian Group). The previous regime, repealed and replaced by this act, was based upon the 1997/98 Regulations regarding Control of Strategic Goods and Import of Radioactive Substances (see *Nuclear Law Bulletin* No. 61).

## ***Food irradiation***

### *Regulations on Foods and Food Ingredients Treated with Ionising Radiation (2004)*

On 20 April 2004, the Cabinet of Ministers approved Regulations on Mandatory Requirements for Foods and Food Ingredients Treated with Ionising Radiation and Additional Requirements for their Labelling, prepared by the Ministry of Health. These Regulations aim to implement 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. Under the Regulations, the control over implementation of these requirements shall be exercised by the Food and Veterinary Service; however practices related to irradiators shall be under the control of the Radiation Safety Centre.

## **Mauritius**

### ***Radiation protection***

#### *Radiation Protection Act (2003)*

This act, promulgated by presidential decree on 24 November 2003, repeals and replaces the 1992 Radiation Protection Act (see *Nuclear Law Bulletin* No. 52). It aims to enforce the protection against the risks associated with exposure to ionising radiation, and to establish a Radiation Protection Authority.

The act is divided into four parts. Part I sets out definitions and defines its scope of application to cover every source of ionising radiation above the exemption level, other than radioactive substances found in nature and sealed sources or devices containing a sealed source where the dose rate at 10 cm from the source does not exceed 1 mSv per hour and the source activity does not exceed the exemption level. "Exemption level" is defined to mean (a) a quantity of radioactivity below 3.7 kilo Becquerel, or (b) a specific radioactivity below 74 Becquerel per gramme.

Part II of the act establishes the Radiation Protection Authority (replacing the Radiation Protection Board under the previous legislation) and provides details on its composition and functions. This Authority shall regulate, control and supervise all activities relating to the import, acquisition, use, transport and disposal of radioactive material, substances, waste, x-ray equipment and other sources capable of emitting ionising radiation. It shall also provide radiation protection services and promote research and development in radiation protection. In the pursuit of these objectives, it is empowered to:

- formulate policies, codes and standards in relation to radiation protection, and revise them regularly;
- promote measures for prevention of nuclear emergencies, organise and support emergency response plans;
- assess and control radiation safety conditions;
- ensure the respect of enacted regulations through coordination between public and private activities and through cooperation with related local, foreign and international organisations;

- advise the minister in charge of nuclear energy and fulfil the obligations of the state regarding conventions in the field of nuclear energy.

The Authority is administered by a Radiation Protection Council which is composed of a chairperson and of representatives of several national authorities. Members comprise one representative from each of the following: the Ministry for Energy; the Prime Minister's Office; the Ministry for Health; the Ministry for the Environment; the Ministry for Labour; the Ministry for Commerce, the Comptroller of Customs and the Institution of Occupational Safety and Health Managers. This Council shall meet at least once a month, but the chairperson may decide on additional meetings. Under the control of the Council, radiation protection officers, placed under the authority of a chief officer, are appointed to help the proper discharge of the Authority's functions under this act. The chief radiation protection officer is responsible for the execution of the policies and regulations of the Authority. As an "on-site" officer, he/she has extensive rights relating to visit, inspection and control, as listed in the act.

Part III provides that any activity under the scope of the Radiation Protection Act is subject to a licence delivered by the Radiation Protection Authority. Requirements to obtain or renew a licence or permit are set out under this section. Where a licensee has violated its obligations under the legislation or under the terms of the licence, the Radiation Protection Authority may modify, suspend or withdraw the licence. The licensee may then appeal to the minister, who shall appoint an Appeal Committee to re-examine this case.

The act also defines the duties of the licensee and its staff. These are mainly to ensure safety of the facilities (in particular by setting up an emergency intervention plan), to train and protect the workers, to immediately inform the Authority in the event of an incident, to safely manage radioactive waste and to acquire the necessary authorisations to transport nuclear materials.

Finally, Part IV provides for the establishment of several supplementary regulations and establishes criminal offences for any person violating the act.

## **Nigeria**

### ***Radiation protection***

#### *Basic Ionising Radiation Regulations (2003)*

These regulations, which were promulgated by the Nigerian Nuclear Regulatory Authority on 20 November 2003 and entered into force on 31 December 2003, aim at implementing the Nuclear Safety and Radiation Protection Act of 1995.

The regulations cover any work or practice involving ionising radiation with the exception of those laid down in the First Schedule to the regulations. They establish the general principles and procedures to be followed by employers, and specify activities that require a prior authorisation from the Nigerian Nuclear Regulatory Authority (hereinafter referred to as "the Authority") and the necessary conditions to acquire such a licence. They also establish the principle of the primary responsibility of the licensee for safety and the justification, optimisation and dose limitation principles.

As regards physical protection and emergency preparedness and response, the employer bears prime responsibility for the security of his facilities and staff. In the event of a radiation accident, the

employer shall immediately inform the Authority and activate the on-site emergency plan, previously submitted to and approved by the Authority. The regulations set out specific radiation protection requirements in order to ensure the safety of controlled and supervised areas, to be enforced by the establishment of “local rules” in each controlled area. Such rules shall be appropriate to the radiation risks and the nature of operations carried out in that area. The employer shall also appoint radiation safety advisers and supervisors in compliance with the safety requirements. The employer must also provide information and training to radiation workers.

The regulations establish a classification and monitoring system. They specify the different categories of classified persons and the corresponding medical surveillance, radiation dose limits, prevention measures or response in the event of overexposure. Some specific restrictions are provided for persons under the age of 18 and pregnant workers. With regard to the control and monitoring of radioactive substances, articles or equipment, the employer shall ensure that such substances are moved, kept or stored in suitable and safe receptacles. Regular testing is required to detect leakage of radioactive substances.

Primary responsibility for radioactive waste management and its safety are imposed on the generator of the waste, except in cases where that generator is unfit to bear such responsibility, in which case it is transferred to the Authority. Waste generators are also responsible for on-site collection, categorisation, and temporary storage of radioactive waste; for notification to the Authority of any waste not expected to decay to clearance levels within one year from the time of its generation and for disposing waste only in licensed disposal facilities. Any imported sealed source must be returned to the supplier.

Some requirements are set out concerning the decommissioning of radiation sources or facilities with radioactive materials. The enactment by the Authority of further radioactive waste management regulations is also recommended by the regulations.

Finally, the regulations include provisions governing offences and penalties.

## **Poland**

### ***General legislation***

#### *Amendments to the Atomic Energy Act (2004)*

On 12 March 2004, the Polish parliament adopted far-reaching amendments to the 2000 Atomic Energy Act (see *Nuclear Law Bulletin* Nos. 67 and 69, the text of this act is reproduced in the Supplement to NLB No. 68). These amendments were published in the Official Journal No. 70/632 and entered into force on 1 May 2004. The main objective of these amendments is to ensure the compliance of Polish legislation governing the peaceful use of nuclear energy with European Union legislation in this field. The scope of the Atomic Energy Act has been broadened by adding three additional groups of provisions:

- provisions ensuring compliance with Poland’s international obligations, and in particular with EU legislation in the fields of nuclear safety, radiological protection and control of nuclear materials and technologies;
- rules governing the monitoring of activities carried out and contamination in the event of a nuclear or radiological emergency;

- procedures designed to ensure the protection of people exposed to ionising radiation for medical purposes.

In addition, some provisions of the act were modernised, and in particular Chapter 12 on civil liability for nuclear damage:

- simplification of certain provisions whose interpretation caused confusion (e.g. the concepts of nuclear damage and nuclear incident);
- introduction of rules governing the extent to which damage is compensated and the applicable procedure (e.g. limitation of compensation for environmental damage to the costs incurred in respect of reinstatement measures carried out by public authorities or other authorised persons);
- insertion of specific provisions relating to insurance coverage (insurance is now the only acceptable form of security to cover liability).

There is a completely new chapter devoted to problems relating to the medical use of nuclear materials in diagnostics and therapy. The act provides for a special licensing procedure for hospitals and other units intending to carry out activities using nuclear materials, and establishes public bodies and authorities to control and monitor these activities.

## **Portugal**

### ***Radiation protection***

*Council Resolution Providing for the Elaboration of a National Plan for Radiation Protection and Nuclear Safety (2004)*

On 14 September 2004, the Council of Ministers approved Council Resolution No. 129/2004 providing for the elaboration of a National Plan for Radiation Protection and Nuclear Safety. This plan shall identify measures to coordinate and improve the action of bodies involved in the regulation, licensing and inspection of nuclear activities, as well as in the fulfillment by Portugal of its international commitments and obligations under EU legislation in the nuclear field. The plan is required to study the possible establishment of a nuclear regulatory body. A working group is established to prepare this plan.

## **Romania**

### ***Organisation and structure***

*Decision Amending the Regulations on the Organisation and Functioning of the National Commission for the Control of Nuclear Activities (CNCAN) (2004)*

This governmental Decision No. 750 was adopted on 14 May 2004 and was published in the Official Gazette No. 459 of 21 May 2004. It amends the regulations on the organisation and functioning of the CNCAN approved by Decision No. 1627/2003 (see *Nuclear Law Bulletin* No. 73).

The main modifications established by the decision are the following:

- the CNCAN is placed under the authority of the Prime Minister through the Prime Minister's Chancellery. The CNCAN is no longer subordinated to the Minister in charge of the Co-ordination of Control Authorities;
- the CNCAN shall initiate legislation in the nuclear field and submit it for approval to the head of the Prime Minister's Chancellery;
- the CNCAN shall submit reports regarding control activities in the nuclear field in Romania on an annual basis or whenever necessary to the Prime Minister;
- any appointment or dismissal of CNCAN management personnel requires the endorsement of the Prime Minister's Chancellery;
- the organisational structure of the CNCAN is to be approved by order of its chairman endorsed by the head of the Prime Minister's Chancellery.

*Decision on the Reorganisation of the National Uranium Company (2004)*

This governmental Decision of 15 May 2004 was published in the Official Gazette No. 479 of 28 May 2004. It reorganises the National Uranium Company into the Radioactive Material Company – Magurele. This company has legal personality, is entirely state owned and is under the authority of the Ministry of Economy and Commerce. Its main activity is geological prospecting and exploration to identify radioactive deposits, as well as conservation works, shutting down operations, environment protection and rehabilitation. The decision provides more detailed provisions on the structure and financial management of the Radioactive Material Company.

***Radiation protection***

*Health Norms for the Safe Conduct of Nuclear Activities (2004)*

Order No. 381 was adopted on 5 April 2004 by the Minister of Public Health and published in the Official Gazette No. 527 of 11 June 2004. It approved the Basic Health Norms for the Safe Conduct of Nuclear Activities as published in the annex attached to the said order. Article 1 of the norms provides that authorisation for the purpose of human use or consumption of any product that has been irradiated or that contains radioactive materials shall be granted only in compliance with the health procedures provided for in these norms. Within the meaning of the norms, the authorisation of irradiated products or products that contain radioactive materials is to be achieved by way of a sanitary endorsement issued by the Ministry of Public Health – through the endorsement commissions within the public health institutes.

*Radiological Safety Norms – Licensing Procedures for Mining, Uranium and Thorium Ore Processing Activities, Processing of Raw Materials and Producing of Nuclear Fuel (2004)*

These norms were approved by Order No. 171 of the chairman of the CNCAN of 31 May 2004 and were published in the Official Gazette No. 530 of 14 June 2004. They provide a list of activities subject to licensing and set out the applicable procedure. Activities exempt from the licensing requirement are also listed.

### *Radiological Safety Norms – Measurement Systems for Radiation Sources (2004)*

These norms were approved by Order No. 144 of 5 May 2004 of the chairman of the CNCAN and published in the Official Gazette No. 534 of 15 June 2004. They set out radiological safety requirements applicable to detection systems or measurement systems using sealed sources or radiation emitters. The CNCAN certifies and controls the manufacturing, import, export, supply, transfer, possession, storage, handling, transport and use of the above mentioned measurement systems.

### *Radiological Safety Norms – Radiotherapy Practice (2004)*

Order No. 94 of 14 April 2004 of the chairman of the CNCAN, published in the Official Gazette No. 532 of 14 June 2004, approved the Radiological Safety Norms applicable to radiotherapy practice. The purpose of these norms is to establish the specific requirements of radiological safety in human medical radiotherapy. The norms also establish the licensing and inspection requirements of the CNCAN in relation to radiotherapy practice.

### ***Regime of nuclear installations***

#### *Norms on the Classification of Bodies Qualified for the Exercise of Activities in the Nuclear Field (2004)*

These norms were approved by Order No. 274 of 6 August 2004 of the CNCAN published in the Official Gazette No. 745 of 17 August 2004. They establish requirements for the authorisation of test laboratories, calibration laboratories, certification bodies for products, certification bodies for quality assurance systems and personnel certification bodies, as provided for in the 1996 Law on the Safe Conduct of Nuclear Activities (see *Nuclear Law Bulletin* Nos. 61 and 68).

### ***Regime of radioactive materials***

#### *Norms on Exemption from Authorisation Requirements for Certain Materials (2004)*

These norms were approved by Order No. 62 of 31 March 2004 of the chairman of the CNCAN and were published in the Official Gazette No. 393 (Part I) of 4 May 2004. They aim to regulate the release from control of materials generated through nuclear activities that do not present any risk for the public health or environment. It is necessary to demonstrate that it is improbable for the actual annual individual exposure following release from control to exceed 10 mSv and that it is virtually impossible for that same annual exposure to exceed 100 mSv. The release from the authorisation requirements is effective only subsequent to CNCAN approval. The norms provide that release from such requirements does not exonerate the authorisation holder from its obligation to comply with all other relevant legal provisions regarding the safekeeping of materials, including hazardous waste.

#### *Decision Establishing the List of Dual-use Products and Technologies Subject to the Export and Import Control Regime (2004)*

This governmental Decision No. 861 of 3 June 2004 was published in the Official Gazette No. 598 of 2 July 2004. The control applies, *inter alia*, to re-export operations; transfer of software or

technology by electronic means, by fax transmission or by phone outside Romania; export of technical assistance, international transit and international transfers; as well as the development and use of dual-use products or technologies. This decision aims to implement Council Regulation No. 149/2003 of 27 January 2003 amending and updating Regulation (EC) No. 1334/2000 setting up a Community regime for the control of exports of dual-use items and technology.

### ***Radioactive waste management***

#### *Order on the Management of Spent Nuclear Fuel and Radioactive Waste (2004)*

Order No. 844 of 9 August 2004, issued by the Nuclear Agency and published in the Official Gazette No. 818 of 6 September 2004, approves the National Strategy for medium and long-term management of spent nuclear fuel and radioactive waste including final disposal and decommissioning of nuclear and radiological installations. It is part of the National Nuclear Plan as approved by governmental Decision No. 1259/2002.

The main objective of the national policy on radioactive waste management is to ensure that it causes minimum impact to the public and the environment. Specific goals are: (i) to ensure that the national database of radioactive waste contains a comprehensive inventory of such waste; (ii) to adopt appropriate technical and administrative measures to ensure the radiological safety of exposed workers, the public and the environment; (iii) to keep all interested parties informed, including the public, in order to guarantee the transparency of the decision-making process.

#### *Norms on the Safe Management of Radioactive Waste (2004)*

These norms were approved by Order No. 56 of 25 March 2003 of the chairman of the CNCAN and were published in the Official Gazette No. 393 (Part I) of 4 May 2004. They establish principles and general requirements in relation to the safe management of radioactive waste in accordance with the provisions of the 1996 Law on the Safe Conduct of Nuclear Activities (see *Nuclear Law Bulletin* Nos. 59 and 68).

The norms set forth the following principles:

- radioactive waste should be managed in such a way as to preserve an acceptable level of public health, and to secure an acceptable level of environmental protection;
- the estimated impact of such waste on future generations shall not exceed the impact currently deemed as acceptable and shall not generate an excessive burden for future generations;
- safety of storage or disposal facilities shall be ensured during the lifetime of the installation.

#### *Norms on the Collection of Contributions from the Licensees for the Financing of the Activities of the National Agency for Radioactive Waste (2004)*

These norms were approved by Order of the Ministry of Public Finances No. 1255 of 23 August 2004 and Order No. 622 of 26 August 2004 of the Ministry of Economy and Trade published in the Official Gazette No. 821 of 6 September 2004. The owners of a nuclear licence must provide an annual direct contribution to finance the activities of the National Agency for Radioactive Waste (see

*Nuclear Law Bulletin* No. 71). The amount of this contribution is calculated in accordance with the annual established electric and thermal power production and the estimated annual volume of low and medium radioactive waste conditioned to be disposed of. These incomes are administrated for the financing of activities like the co-ordination at national level of the management of spent nuclear fuel and radioactive waste.

## **Russian Federation**

### ***Organisation and structure***

#### *Establishment of New Federal Agencies in the Nuclear Energy Field (2004)*

Presidential Decree No. 314 of 9 March 2004 introduced a major reform of the federal executive branch and established a new system of federal agencies in the nuclear energy field:

- the former *Minatom* (Ministry for Atomic Energy) has been dissolved and its previous functions have been divided between the Ministry of Industry and Energy (vested with law-making functions) and the Federal Agency for Atomic Energy (responsible for the application of the law, governmental services and management of the property of the former *Minatom*); this new Agency is called *Rosatom*;
- *Gosatomnadzor* – the Russian Federal Agency for Nuclear and Radiation Safety (see *Nuclear Law Bulletin* Nos. 51 and 70) – was transformed in March 2004 into a Federal Nuclear Regulatory Authority established within the new Ministry of Industry and Energy. In May 2004, this Federal Nuclear Regulatory Authority was merged with the Federal Technological Supervisory Service into a new Federal Ecological, Technological and Nuclear Supervisory Service which reports directly to the government. See also governmental Decree No. 401 of 30 July 2004 on this point; this new service is called *Rostekhnadzor*.

The powers of the Federal Ecological, Technological and Nuclear Supervisory Service in the area of environmental protection are more extensive than those of the former *Gosatomnadzor*. However, the July 2004 Decree specifies that activities in relation to the development, production, testing, use and dismantling of nuclear weapons and nuclear military installations have been excluded from the scope of competence of this new service and shall be the responsibility of the Defence Ministry.

The July 2004 Decree provides that the Federal Ecological, Technological and Nuclear Supervisory Service is a federal agency of the executive branch exercising functions related to the adoption of legal acts, monitoring and surveillance in the areas of:

- environmental protection, in order to limit the negative effects caused by human impact on the environment (including waste management activities);
- safe conduct of activities related to the exploitation of natural resources and the protection of such natural resources;
- industrial safety;
- safety in the uses of nuclear energy (with the exception of weapons-related activities or military installations);
- safety of electrical and heating installations and networks;

- safety of hydro-technical structures at the industrial and power-generating sites;
- safety of the production, storage and application of industrial explosives.

This Service is nominated as the nuclear regulatory body under the 1994 Convention on Nuclear Safety (see *Nuclear Law Bulletin* Nos. 53 and 58). Its three principal functions are drafting of legislation, monitoring and surveillance of nuclear safety and licensing of activities in the nuclear field.

Specifically in the field of spent nuclear fuel management, the service is responsible for monitoring the timely return of spent fuel assemblies and the products of the processing thereof to the country of origin with which the Russian Federation has entered into an international agreement providing for imports into the Russian Federation of spent fuel assemblies from nuclear reactors for the purposes of temporary storage and processing subject to the return of the products of such reprocessing.

### ***Regulations on nuclear trade***

#### *Decree on the List of Dual-use Equipment and Materials Subject to Export Controls (2003)*

On 14 January 2003, Presidential Decree No. 36 on the adoption of the list of equipment and material of dual-use and respective technologies applied in the nuclear field that are subject to export controls was adopted. This decree was adopted in implementation with Article 6 of the Federal Law on Export Control of 18 July 1999. It repeals and replaces the previous list of dual-use equipment and materials dated 21 February 1996.

#### *Decree on the List of Dual-use Goods and Technologies Subject to Export Controls (2004)*

This Presidential Decree No. 580 on the adoption of the list of goods and technologies of dual use that can be applied in the production of weapons and military equipment and that are subject to export control was adopted on 5 May 2004. It repeals and replaces the previous lists on the same subject. The new list includes “conventional”, “sensitive” and “highly sensitive” goods and technologies, and also those goods and technologies that are under control due to national security interests.

## **Slovak Republic**

### ***General legislation***

#### *Atomic Act (2004)*

A new Atomic Act was adopted by the National Council (parliament) of the Slovak Republic on 9 September 2004 and entered into force on 1 December 2004 with the exception of certain provisions due to enter into force on 1 January 2007. Although it repeals and replaces the 1998 Act on the Peaceful Use of Nuclear Energy (see *Nuclear Law Bulletin* Nos. 60 and 61, the text of this act is reproduced in the Supplement to NLB No. 62), it maintains the original philosophy, structure and content of this legislation.

It contains provisions governing the following areas: rights and obligations of individuals and legal entities in relation to the peaceful uses of nuclear energy; nuclear materials; radioactive waste; physical protection; transportation of nuclear materials, radioactive waste and spent nuclear fuel; licensing of nuclear installations; nuclear safety; emergency planning; quality assurance; staff training; civil liability for nuclear damage; implementation of EU legislation into national law; and of course sanctions in the event of violation of the provisions of this legislation. The act no longer covers the supervision of the adverse effects of ionising radiation.

The principal modifications made by this act are as follows:

- definitions: the list of definitions has been extended and the existing definitions are more detailed;
- competences of the Nuclear Regulatory Authority: the NRA will no longer license and regulate supply activities. Its safety supervisory activities will focus henceforth on the operators of nuclear installations and their quality assurance systems. The NRA is to become a specialised nuclear installation construction authority, with the exception of land planning and expropriation proceedings. The licensing regime for the different stages of service life of a nuclear installation has been strengthened;
- status of the Authority's inspectors: their position is further defined and provisions governing their recruitment and appointment are specified;
- establishment of the National Agency for the Disposal of Radioactive Waste, which will report to the Ministry of Economy (these provisions shall enter into force only on 1 January 2007);
- safeguards: changes have been introduced to comply with EU legislative requirements, including provisions on record keeping and inspection of nuclear materials, transportation of radioactive waste to and from the EU, procurement of and authorisation for import and export of special materials and equipment;
- physical protection: more stringent verification of the qualifications required for persons entering a nuclear installation;
- civil liability for nuclear damage: liability limits are now expressed in Euro, rather than in Slovak crowns, and are raised to EUR 75 million for nuclear installations, and EUR 50 million for transport activities.

The entry into force of the new Atomic Act will require the adoption of new implementing regulations, and the amendment or repeal of existing regulations implementing the 1988 Law on the Peaceful Use of Nuclear Energy.

It is planned to publish the text of this legislation in the Supplement to a future edition of the *Bulletin*.

## Sweden

### *Regime of nuclear installations*

#### *New SKI Regulations on Safety in Nuclear Facilities (2004)*

Pursuant to the 1984 Act and Ordinance on Nuclear Activities as amended (the text of these instruments was reproduced in the Supplement to *Nuclear Law Bulletin* No. 33), the Swedish Nuclear Power Inspectorate (SKI) is the main regulatory body with authority to issue regulations concerning safety aspects of nuclear activities. On 15 June 2004, the SKI Board issued new regulations on Safety in Nuclear Facilities [SKIFS 2004:1]. The new regulations replace previous SKI Regulations of 1998 on Safety in Certain Nuclear Facilities, and will enter into force on 1 January 2005.

In the same manner as the previous regulations, the new instrument forms an umbrella or framework regulation, under which more specific regulations deal in more detail with particular aspects of nuclear safety. The new safety regulations have to some extent a more general scope than their predecessor. Whereas the latter only applied to nuclear facilities approved by the government, the new regulations apply to all nuclear facilities for which a licence is issued under Section 5 of the 1984 Act on Nuclear Activities. Thus, it will also apply to the kind of small-scale establishments that the SKI is empowered to approve according to Section 16 of the 1984 Ordinance on Nuclear Activities.

The new regulations consist of ten chapters. The first chapter deals with applicability, scope and definitions. In the second chapter there are basic standards on safety measures. These cover deficiencies in barriers and address defence-in-depth as well as questions related to the organisation and management of nuclear safety issues. This chapter also sets out basic requirements concerning physical protection. Chapter 3 includes provisions on the design and construction of nuclear facilities, and Chapter 4 deals with assessment and evaluation of establishments' safety. Chapter 5 contains provisions on operation of facilities, and Chapter 6 covers some basic questions related to the handling of nuclear waste and nuclear materials. In Chapter 7, there are provisions governing the reporting of occurrences and conditions to the regulatory and supervisory body (SKI), and Chapter 8 deals with documentation and retaining of documents. Chapter 9 covers decommissioning, while Chapter 10 provides that SKI may grant exceptions from the provisions of the 1984 Ordinance.

In general, the structure and content is to a large extent maintained from the previous safety regulations. Apart from amendments providing for increased clarification of certain requirements, the main novelties concern the widened scope and Chapter 9 on decommissioning. These regulations will continue to serve as an umbrella regulation under which more specific regulations will be adopted.

## Ukraine

### *General legislation*

#### *Amendments to the 1995 Law on the Use of Nuclear Energy and Radiation Safety (2004)*

Law No. 1417-IV introducing amendments into the 1995 Law on the Use of Nuclear Energy and Radiation Safety was adopted by the *Verkhovna Rada* (Parliament) on 3 February 2004. This law makes the following modifications:

- the term “radioactive materials” is introduced into this legislation, defined as sources of ionising radiation, nuclear materials and radioactive waste;
- suppliers who act as intermediaries and who participate in the conclusion of contracts for the supply of nuclear materials are required to retain all documents related to transactions performed either by them or on their behalf for at least one year after the expiry of the contract. Such documents shall contain the names of the contracting parties, the date of signature of the contract, data on quantity, form and composition of nuclear materials along with information on their origin and purpose;
- delivery of permits for the transportation of radioactive materials is now subject to further requirements in relation to the issue and retention of documents concerning the acceptance and transfer of nuclear materials during their transportation, in keeping with the procedure prescribed by the Cabinet of Ministers of Ukraine. The documents should contain the names of the parties taking over or receiving nuclear materials, as well as data on quantity, form and composition of nuclear materials, and should be kept by persons involved in transportation for at least one year;
- the state nuclear and radiation safety regulatory authority shall not refuse to issue a permit for shipment on Ukrainian territory of radioactive waste resulting from the reprocessing of nuclear fuel which is returning to its country of origin for storage and final disposal, if such a permit was granted for the primary transportation of the spent nuclear fuel, and where the shipment shall be carried out in line with Ukrainian legislation;
- the export of radioactive waste from Ukraine to foreign countries shall not be allowed if the state nuclear and radiation safety authority concludes that those countries lack the appropriate technical and other capabilities to ensure the safe treatment of such waste;
- the import of ionising radiation sources into Ukraine and their export to other countries shall be allowed subject to the consignee holding a licence to use such sources;
- with regard to the international transportation of radioactive materials, a transporter or final recipient must be an agent of management registered in Ukraine.

## **United States\***

### ***Regime of radioactive materials***

#### *National Defense Authorization Act for Fiscal Year 2005 (2004)*

On 29 October 2004, the president signed into law the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005 (H.R. 4200).<sup>1</sup> Title 31 of this act contains provisions affecting authorities of the Department of Energy (DOE) including Section 3132 governing the acceleration of removal or security of fissile material, radiological and related equipment at vulnerable sites worldwide. This section authorises the president to establish in DOE a programme and Task Force on Nuclear Materials to undertake an accelerated, comprehensive, worldwide effort to mitigate threats

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\* This information note was kindly provided by Ms. Sophia Angelini, Attorney Adviser at the US Department of Energy.

1. The Senate and House Conferees approved H.R. 4200 on 8 October 2004 and sent it to the president for his signature. A Public Law number has not yet been assigned to the act.

posed by high-risk proliferation-attractive fissile materials, radiological materials, and related equipment located at sites potentially vulnerable to theft or diversion.

The section provides for activities that may include shipment, transportation, processing, packaging, security upgrades, disposition and technical support to the IAEA, other countries and entities in connection with such materials. The programme could also include development of alternative fuels and irradiation targets based on low-enriched uranium to convert research or other reactors fuelled by highly-enriched uranium; accelerated actions for blend down; provision of assistance in the closure and decommissioning of sites identified as presenting risks of proliferation; assistance in placement of employees displaced as a result of the programme; and conversion of sites identified as presenting risks of proliferation.

### ***Radioactive waste management***

#### *National Defense Authorization Act for Fiscal Year 2005 (2004)*

Title 31 of this new act (see above) contains provisions affecting authorities of the Department of Energy (DOE) including waste incidental to processing.

As background, in 2002, the Natural Resources Defense Council, Snake River Alliance and Yakima Nation filed suit over the Waste Incidental to Reprocessing (WIR) requirements in DOE Order 435.1. The US District Court for the District of Idaho ruled in 2003 that provisions of DOE Order 435.1, governing the Department's management and classification of waste streams generated by reprocessing of spent nuclear fuel, violated the Nuclear Waste Policy Act of 1982, as amended (NWPAA) and were invalid insofar as they allowed the Department to determine that some waste associated with reprocessing did not constitute high-level waste. DOE appealed to the US Court of Appeals for the Ninth Circuit in San Francisco where oral argument took place on 5 October 2004.

Section 3116 of the act, entitled "Defense Site Acceleration Completion", authorises DOE to classify certain waste resulting from reprocessing as other than "high-level radioactive waste" which would result in the Department being able to continue tank cleanup at the Savannah River Site and INEEL (Idaho National Engineering and Environmental Laboratory). The Conferees noted that the legal uncertainty resulting from the 2003 US District Court decision in Idaho had halted certain cleanup activities, creating potential risks to the environment and public health. Further, they used existing NRC standards for low-level waste to establish new criteria for waste incidental to reprocessing in the states of Idaho and South Carolina.

Under Section 3116, notwithstanding other laws that define classes of radioactive waste,<sup>2</sup> where material is stored at a DOE site where activities are regulated by "covered" state closure plans or permits, the term "high-level radioactive waste" would specifically not include radioactive material resulting from reprocessing of spent nuclear fuel " if the Secretary of Energy determined that such material:

1. does not require permanent isolation in a geologic repository;
2. has had highly radioactive radionuclides removed to the maximum extent practical;

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2. Nuclear Waste Policy Act of 1982, as amended; Section 202 of the Energy Reorganization Act of 1974, and other laws defining classes of radioactive waste.

- 3a. does not exceed NRC concentration limits for Class C low-level waste;<sup>3</sup> and will be disposed of:
  - i) in compliance with NRC performance objectives,<sup>4</sup> and
  - ii) pursuant to a state-approved closure plan or permit; or
- 3b. exceeds concentrations limits for Class C low-level waste but will be disposed of:
  - i) in compliance with NRC performance objectives;
  - ii) pursuant to state-approved closure plan or permit; and
  - iii) pursuant to plans developed by the secretary in consultation with the NRC.

Therefore, material resulting from reprocessing and stored at DOE sites does not constitute high-level radioactive waste where: 1) the secretary determines that the material does not require repository disposal; 2) radionuclides have been removed; and 3) disposal will be in accordance with NRC requirements, plans and performance objectives as well as state approved closure plans or permit – whether or not the waste exceeds NRC concentration limits for Class C waste.

Section 3116 clarifies DOE’s authority to classify tank waste streams and facilitate long-term cleanup plans across all defense sites.<sup>5</sup> It permits resumption of state-approved tank closure actions in South Carolina and provide a disposal path for the low-activity fraction consisting of salts currently stored in the tanks. It also establishes a monitoring role for the NRC with respect to cleanup. DOE has been working with states to achieve consensus on a legislative proposal that would clarify the law and allow cleanup activities to proceed.

### ***Third party liability***

#### *Price-Anderson Act (2004 renewal)*

Title 31 of the National Defence Authorization Act contains provisions affecting authorities of the Department of Energy (DOE) including the 1957 Price-Anderson Act as amended.

Section 3141 of the act extends DOE’s Price-Anderson Act authority to indemnify contractors for liability as a result of a nuclear incident from 31 December 2004 to 31 December 2006.<sup>6</sup> This

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- 3. Class C low-level concentration limits in NRC regulations at 10 C.F.R. Part 61.55.
  - 4. Performance objectives in NRC regulations at 10 C.F.R. Part 61, Subpart C.
  - 5. DOE’s environmental efforts include the cleanup of contamination resulting from over 50 years of nuclear weapons production and nuclear energy research. The 2005 Budget provides over USD 7.4 billion dollars for DOE’s Environmental Management programme – the most funding ever for this programme – to cut in half the years remaining to complete site cleanups. More information on the status of DOE and NNSA programmes is available at the Office of Management and Budget, Executive Office of the President Web site at [www.whitehouse.gov/omb/budget/fy2005/energy.html](http://www.whitehouse.gov/omb/budget/fy2005/energy.html)
  - 6. First enacted in 1957 as an amendment to the Atomic Energy Act (AEA), 42 U.S.C. 2210, Price-Anderson, provides a system of financial protection for persons who may be injured by and persons who may be liable for a nuclear incident. It was intended to: 1) encourage development of the nuclear industry by providing private industry with financial protection for legal liability resulting from a nuclear incident;

provision shields from legal liability DOE contractors working at national laboratories and other facilities.<sup>7</sup>

As stated in a recent Issue Brief for Congress,<sup>8</sup> liability for damages to the general public from nuclear incidents is addressed by the Price-Anderson Act. The act, which was due for re-authorisation on 1 August 2002, was extended for the commercial reactors which all operate under NRC licences until 31 December 2003.<sup>9</sup> The legislation provides that without extension, existing reactors would continue to operate under the current Price-Anderson liability system although new reactors would not be covered. Price-Anderson coverage for DOE nuclear contractors was extended until 31 December 2004.<sup>10</sup>

#### *Operation of the Price-Anderson Act:*

As a condition for their NRC licences,<sup>11</sup> owners of commercial reactors must assume “public liability”<sup>12</sup> for nuclear damages and waive defences, such as immunity from public liability under federal and state law, following a nuclear incident.<sup>13</sup> To pay any such damages, each licensed reactor

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and 2) protect the public by assuring availability of funds to available to compensate victims for damages and injuries in the event of a nuclear incident. For DOE activities, the act achieves its objectives by requiring an indemnification in each DOE contract that involves the risk of a nuclear incident. This indemnification: 1) provides omnibus coverage of a DOE contractor and all other persons who might be legally liable for injury or damage resulting from a nuclear incident; 2) indemnifies fully all legal liability up to the statutory limit on such liability (approximately USD 10.4 billion for a nuclear incident in the United States); 3) covers any DOE contractual activity that might result in a nuclear incident in the United States; 4) is not subject to the availability of appropriated funds; and 5) is mandatory and exclusive. Standard indemnification clauses are incorporated into all DOE contracts and subcontracts involving source, special nuclear, or by-product (nuclear) material. *Report to Congress on the Price-Anderson Act*, U.S. Department of Energy (1998).

7. Daniel Whitten, Angela Y. Hardin, “Legal Protections for DOE Contractors Extended for Two Years by Congress”, *Inside Energy*, 18 October 2004, at 3. In this article, the authors note that the extension opens the door for contractors interested in bidding on government-owned/contractor-operated facilities. The timing is especially important for companies that want to bid on contracts to manage the Los Alamos and Lawrence Berkeley national laboratories which deal with nuclear research and materials and whose contracts are set to expire next year. Contractors could be hesitant to bid on contract or operate a facility without Price-Anderson protection.
8. Mark Holt, Carl Behrens, *Nuclear Energy Policy*, Resources, Sciences, and Industry Division, Congressional Research Service, the Library of Congress. 1 September 2004. CRS-10-11. (Order Code IB88090). This CRS Issue Brief for Congress provides a comprehensive overview of current nuclear energy legislation affecting DOE programmes. The authors, Mr. Holt and Mr. Behrens, very graciously authorised quoting and reproducing from their work.
9. Pub. L. No. 108-7.
10. National Defense Authorization Act for FY 2003, Pub. L. No. 107-314.
11. AEA, Section 170a.
12. The term “public liability” means, in part, any legal liability arising out of or resulting from a nuclear incident or precautionary evacuation. AEA, Section 11w.
13. The term “nuclear incident” means, in part, any occurrence, including an extraordinary nuclear occurrence, within the United States causing, within or outside the United States, bodily injury, sickness, disease, or death, or loss of or damage to property, or loss of use of property, arising out of or resulting

must carry primary financial protection in the amount of the maximum liability insurance available, increased by the insurance industry from 200 million US dollars (USD) to USD 300 million on 1 January 2003. Any damages exceeding that amount are to be assessed equally against *all* covered commercial reactors. Those assessments – called “retrospective premiums” or “secondary insurance” – would be paid at an *annual* rate of no more than USD 10 million per reactor, to limit the potential financial burden on reactor owners following a major accident.<sup>14</sup> On 20 August 2003, the NRC adjusted for inflation the maximum retrospective payment at USD 95.8 million per reactor per incident. Including two that are not operating, 105 commercial reactors are currently covered by the Price-Anderson retrospective premium requirement.<sup>15</sup>

For each nuclear incident, the Price-Anderson liability system currently provides up to USD 10.9 billion in public compensation. That total includes the primary financial protection of USD 300 million in insurance coverage carried by the reactor that suffered the incident, plus the secondary insurance in the form of USD 95.8 million in retrospective premiums from each of the 105 currently covered reactors, totalling USD 10.4 billion. On top of those payments, a 5% surcharge may also be imposed, raising the total per-reactor retrospective premium to USD 100.6 million and the total available compensation to about USD 10.9 billion. Under Price-Anderson, the nuclear industry’s liability for an incident is capped at that amount, depending on the number of covered reactors, the amount of available insurance, and the inflation adjustment made by the NRC every five years. Payment of any damages above that liability limit would require congressional approval.

Price-Anderson also covers contractors who operate DOE nuclear facilities and materials.<sup>16</sup> The liability limit for DOE contractors is the same as for commercial reactors, excluding the 5% surcharge, except when the limit for commercial reactors drops because of a decline in the number of covered reactors. In such a case, the DOE indemnification would not decrease. Because the most recent adjustments have raised the commercial reactor liability limit to a record high, the liability limit for DOE contractors is currently the same as the commercial limit (minus the surcharge) or USD 10.4 billion. Price-Anderson authorises DOE to indemnify its contractors for the entire amount, so that damage payments for nuclear incidents at DOE facilities would ultimately come from the U.S. Treasury. However, the act allows DOE to impose civil penalties on its contractors for safety violations.<sup>17</sup> The DOE Office of Price-Anderson Enforcement administers the nuclear safety

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from the radioactive, toxic, explosive, or other hazardous properties of source, special nuclear, or byproduct material. AEA, Section 11q.

14. The NRC requires proof of primary and secondary insurance coverage of all licensees. Of the 103 operating nuclear power plants, 31 are owned by 11 limited liability companies which the NRC does not treat differently than other licensees. An overview of the requirements are in the US General Accounting Office Report to Congressional Requesters, available at [www.gao.gov/new.items/d04654.pdf](http://www.gao.gov/new.items/d04654.pdf) entitled *Nuclear Regulation NRC’s Liability Insurance Requirements for Nuclear Power Plants Owned by Limited Liability Companies*, May 2004.
15. 42 U.S.C. 2282a(b)(2). (1994).
16. AEA, Section 170d.
17. AEA, section 234A “Civil Monetary Penalties for Violations of Department of Energy Safety Regulations” authorised up to USD 100 000 per violation per day, with each violation and each day of a violation constituting a separate violation. The amount has been adjusted for inflation and is now USD 110 000 per day per violation. See 10 C.F.R. Part 820.81 (2004). (The NRC has similar authority under the AEA at Section 234 to impose civil monetary penalties (CMP) for violations of licensing requirements and on 26 October 2004 issued its “Adjustment of Civil Penalties for Inflation”, 69 Fed. Reg. 62393 (2004), raising the CMP to USD 130 000 per day per violation.)

enforcement programme.<sup>18</sup> Contractor employees and directors can face criminal penalties for “knowingly and wilfully” violating nuclear safety rules.<sup>19</sup> There is automatic remission of civil penalties for certain non-profit educational entities.

## Uruguay

### *Organisation and structure*

#### *Decree Establishing the National Directorate of Energy and Nuclear Technology (2004)*

Decree No. 151/004 was adopted on 5 May 2004 and published in the Official Bulletin on 28 July 2004. It provides that the National Directorate of Energy and the Directorate of Nuclear Technology (see *Nuclear Law Bulletin* No. 43), both previously under the jurisdiction of the Ministry of Industry, Energy and Mines, are merged to form this new directorate.

The new institution is headed by a director and is comprised of two principal divisions: (the Division of Energy, Radiological Protection and Safety, and the Unit of International Co-operation and Institutional Relations), the Department of Technical Management and a technical adviser.

The Division of Energy, Radiological Protection and Safety has two departments: the Department of Regulation and Licensing, and the Department of Supervision and Control. Its main functions are:

- regulatory tasks: to elaborate and control the enforcement of all regulations related to radiological safety, security and protection, in particular by conducting inspections in facilities using ionising radiation;
- licensing: to license facilities, authorise import, export and transportation of radioactive sources, radioisotopes or equipment generating ionising radiation, and authorise individuals to handle them;
- supervision: to supervise the Radiological Emergencies Group and to participate in the National Emergency System of the Presidency of the Republic, in the event of radiological incidents or accidents.

The Unit of International Co-operation and Institutional Relations is the national contact point for international co-operation in the field of energy and nuclear technology. In particular, it shall assure co-ordination with the IAEA and shall prepare Plans of Action implementing co-operation agreements with nuclear institutions of different countries.

The Department of Technical Management forms an interface between institutional bodies and private stakeholders involved in activities using ionising radiation. Its main functions and areas of activities are:

- institutional co-ordination: to implement the National Plan of Environmental Radiological Protection in co-operation and co-ordination with other institutions, and to work jointly with the Unit of International Co-operation and Institutional Relations;

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18. U.S. Department of Energy *Office of Price Anderson Enforcement, Nuclear Safety Enforcement Program*, April 2004. (DOE/EH-0679). Available at [www.eh.doe.gov/enforce](http://www.eh.doe.gov/enforce).

19. 10 C.F.R. Subpart F “Criminal Penalties” Part 820.71 (2004).

- relations with private stakeholders: to establish commercial relations with clients, collaborators and competent institutions in Research and Development, and to carry out agreements and contracts with businesses;
- technical functions: to operate the Laboratory of Calibration and Metrology of Ionising radiation and to offer technologies related with the use of nuclear analytical techniques.

The role of the technical adviser is to provide advice to the directorate in relation to energy themes, quality control, nuclear law and treaties.