NATIONAL LEGISLATIVE AND REGULATORY ACTIVITIES

Albania

Radioactive waste management

Regulations on radioactive waste management (2004)

These Regulations, approved in March 2004 by the Commission on Radiation Protection, contain general provisions governing the safe management of radioactive waste generated in Albania.

The Institute of Nuclear Physics is the institution responsible for the processing of all kinds of radioactive waste. The Regulations describe different methods of storage according to the type of waste: liquid radioactive waste is collected in special tanks and activity concentration is determined along with total activity. Quantities of radioactive waste which may be released into the municipal sewer are determined in accordance with the radiotoxicity of radionuclides contained therein. Solid waste with half-lives of less than 60 days is confined in special containers and is stored for a period of at least ten half-lives before treating it as conventional waste. Solid waste with half-lives of more than 60 days is sent to the Institute of Nuclear Physics for conditioning and interim storage.

The Regulations contain two appendices governing limits of radioactivity which may be released into the municipal sewer and radiotoxicity levels of groups of radionuclides.

Transport of radioactive materials

Regulations for the safe transport of radioactive materials (2004)

These Regulations were approved in March 2004 by the Commission on Radiation Protection. They are based on the IAEA Regulations for the Safe Transport of Radioactive Materials No. TS-R-1 (ST-1, Revised) and also take into account national specificities.

Packages for the transport of radioactive materials are classified into four categories (exempted packages, industrial packages, type A packages and type B packages) based on values established in Annex 1.

The Regulations provide for contamination limits on external packages for alpha, beta and gamma emitters, as well as total radiation level limits applied to vehicles.

The Regulations describe the list of documents governing the transport of radioactive materials and procedures related to their import and export. They also include two appendices governing values for the categorisation of packages for transport (see *supra*) and labelling.

Argentina

Organisation and structure

Decree on the organisation of the Ministry of Federal Planning, Public Investment and Services (2003)

This Decree provides that the National Atomic Energy Commission (*Comisión Nacional de Energía Atómica* – CNEA) is a decentralised body under the authority of the Secretary of Energy of the Ministry of Federal Planning, Public Investment and Services. Previously it had been under the jurisdiction of the General Secretary of the Presidency (see *Nuclear Law Bulletin* No. 70). This move aims to renew the traditional links of the Atomic Energy Commission with power generation.

Armenia

General legislation

Law on amendments and additions to the Licensing Law (2004)

A law introducing amendments and additions to the Licensing Law was adopted by parliament on 16 March 2004 and entered into force on 5 April 2004 following signature by the President and publication in the Official Gazette. The Licensing Law, which entered into force on 1 July 2001, governs all activities subject to licensing, including those in the nuclear field. It specifies the authorities responsible for delivering licenses and the procedure to be followed.

Pursuant to the amendments introduced by this Law of 2004, the Armenian Nuclear Regulatory Authority (ANRA) (see *Nuclear Law Bulletin* No. 66) is the recognised licensing authority in all fields relating to the utilisation of atomic energy, with the exception of the import and export of nuclear and radioactive materials, equipment containing such material, radioactive waste, or special materials or technologies, in respect of which the government performs licensing activities. The types of practices subject to licensing have also been specifically defined. In the previous version of the Licensing Law, the licensing authority for all activities in the atomic energy field was the government. These amendments aim to address conflicts and inconsistencies between the Law for the Safe Utilisation of Atomic Energy for Peaceful Purposes (see *Nuclear Law Bulletin* Nos. 60 and 63, the text of this law was reproduced in the Supplement to *Bulletin* No. 65) and the Convention on Nuclear Safety.

Regime of radioactive materials (including physical protection)

Decree on the strengthening of physical protection and security measures at nuclear facilities (2003)

This Decree was adopted on 11 September 2003 to define the principle ways of strengthening rules governing physical protection requirements applicable to nuclear facilities and nuclear materials. It establishes the duties of state authorities and other legal entities and physical persons involved in the physical protection of such facilities or materials, including in the event of incidents jeopardising their protection.

Belarus

General legislation

Presidential Decree on licensing of certain activities and Resolution of the Council of Ministers on licensing of activities in the field of industrial safety (2003)

The licensing regime applicable to activities in the field of nuclear and radiation safety has been considerably changed by the adoption of the above instruments. Pursuant to Presidential Decree No. 17 of 14 July 2003, which was of a temporary nature, the President defines certain types of activities which are subject to licensing and the applicable licensing procedure. Carrying out such activities without a licence is illegal. The Decree approved the Order on the Licensing of Certain Activities, laying down detailed licensing procedures, and established the List of Activities Subject to Licensing and Governmental Bodies Authorised to Issue Licences. In accordance with this list, the Directorate for Supervision of Industrial and Nuclear Safety of the Ministry for Emergencies of Belarus (*Promatomnadzor*) is responsible for licensing activities in the field of industrial safety (including nuclear and radiation safety-related activities).

Pursuant to Regulatory Resolution No. 1357 of the Council of Ministers of 20 October 2003, licences, valid for five years, are issued for the following activities involving sources of ionising radiation, nuclear materials and protective equipment:

- production and storage of radioactive materials and commodities containing radioactive materials;
- radioactive waste management (with the exception of temporary storage of radioactive waste resulting from the economic activities of an undertaking in quantities less than the minimum significant quantity as set out in Annex 19 to the Radiation Safety Norms of 2000);
- design, production, construction, mounting, adjustment, repair, servicing (including charging/recharging of radiation devices and installations with radionuclide sources) of nuclear facilities, as well as the production of technological equipment and protective devices for such facilities;
- use of radiation devices and installations containing radionuclide sources with a total activity of more than 3.7×10^{11} Bq, or with the activity of any one of the sources at a level more than 3.7×10^{10} Bq, as well as radiation devices and installations with accelerating voltage of more than 100 Kv, and nuclear facilities, use of radioactive materials (including storage), with an activity exceeding the minimum significant activity and exceeding by 1000 time the minimum significant quantity (Annex 19 to the Radiation Safety Norms of 2000), sealed radionuclide sources with an activity superior to 3.7×10^{10} Bq.

Belgium

Regime of radioactive materials (including physical protection)

Act amending the Act of 15 April 1994 and providing for the transfer of certain civil servants from the Service for State Security in the nuclear field (2003)

This Act, adopted by the Federal Public Service for Home Affairs on 2 April 2003, was published in the Official Journal (*Moniteur belge*) of 2 May 2003. It repeals the Act of 4 August 1955 on State Security in the Nuclear Field and complements the Act of 1994 on Protection of the Public and the Environment against Radiation (see *Nuclear Law Bulletin* Nos. 53, 54 and 59). The Act completes the list of definitions set out in the Act of 15 April 1994 and adds definitions for nuclear materials, national and international nuclear transport, physical protection measures, sabotage and nuclear inspectors.

The Act establishes the powers of the members of the inspection services. They are entitled to give warnings and set deadlines for those who are in breach to remedy their situation. They are furthermore authorised to prescribe any measures they deem useful to reduce or eliminate danger for the health and safety of workers, the public or the environment in relation to ionising radiation. Measures taken by members of the inspection services are open to appeal.

The Act specifies that the Federal Agency for Nuclear Control is responsible for physical protection measures and is habilitated to decide which measures should be taken to protect nuclear technology developed by Belgian nuclear institutions (classification of nuclear materials and documents relating to such classification). The transfer of nuclear materials may only be carried out by licensees. Included amongst the measures of physical protection set out in the Act is the limitation of access to zones in nuclear installations.

Finally, the Act regulates the conditions pursuant to which certain civil servants from the Service for State Security in the Nuclear Field will be transferred and their status.

Radioactive waste management

*Act on funds for the dismantling of nuclear power plants and the management of irradiated fissile materials in such plants (2003)**

1. On 11 April 2003, Belgium adopted a new Act on funds for the dismantling of nuclear power plants and the management of irradiated fissile materials in such plants.[1] This Act transforms the manner in which funds are set aside for the future dismantling of nuclear power plants and the management of irradiated fissile materials in such plants.

This Act essentially aims to offer certain guarantees in the face of the liberalisation of the European electricity market. It also fits into the new legal framework in Belgium characterised, *inter*

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1. Official Journal (*Moniteur belge*), 15 July 2003.

alia, by the Act of 31 January 2003 on the Phase-out of Nuclear Energy for the Purposes of the Industrial Production of Electricity.[2]

This Act aims, first, to guarantee through increased state control that the necessary funds will be available for the dismantling of nuclear power plants and the management of spent fissile materials in such plants. It also aims to allow operators to continue to use, to a certain extent, the important sums of money set aside as funds for this purpose.

2. Before the adoption of the Act of 11 April 2003, funds for the dismantling of nuclear power plants and the management of their spent fissile materials were managed separately. Funds for the dismantling of nuclear power plants were governed by a convention of 9 October 1985 between the Belgian state and the electricity producers. This convention set out guiding principles for funding and the practical rules and regulations were left to the Electricity and Gas Regulatory Committee. However, these funds remained mobilised within the electricity-producing companies Electrabel and SPE (see footnote 6), and the monitoring carried out by the Regulatory Committee did not include the use or the availability of these funds.

Funds for the management of spent fissile materials in these plants were set up within a legal entity separate from the electricity producers – Synatom (see footnote 5). These funds were lent for the most part to Electrabel. The Belgian state, as shareholder, exercised control over the use of such funds by Synatom. In 1994, Tractebel bought the state's shares in Synatom, i.e. 50% of the capital. Electrabel retained the other 50%. However, the state, through a Royal Order of 10 June 1994,[3] holds a "golden share" in Synatom which gives it *inter alia* a right to oppose decisions which are contrary to national interests in the energy field.

3. The new Act of 11 April 2003 replaces these two funding systems. In order to strengthen control over the management of these funds, three principal modifications have been introduced: a specialised Monitoring Committee has been set up, the establishment and management of funds for the dismantling of nuclear power plants and their spent fissile materials are combined into one single system; and these activities are vested in Synatom, which is now 100% controlled by Electrabel (see footnote 5).

In this way, the new system governing funding for the dismantling of nuclear power plants and their spent fissile materials is structured around four principal players:

- the Monitoring Committee established by the Act of 11 April 2003;[4]
- the Nuclear Funding Company (Synatom);[5]

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2. Official Journal (*Moniteur belge*), 28 February 2003. The text of this Act was reproduced in *Nuclear Law Bulletin* No. 71.

3. Royal Order providing the state with a special share in Synatom, published in the Official Journal (*Moniteur belge*), 28 June 1994.

4. Committee for the Monitoring of Mechanisms used for the Funding of Dismantling and for the Management of Fissile Materials (*Comité de suivi des mécanismes lies aux provisions pour le démantèlement et pour la gestion de matières fissiles*).

5. The Act defines this to mean the limited company "*Société belge des combustibles nucléaires* – Synatom" referred to in the Royal Order of 10 June 1994 and which is governed by Article 179, Section 1 of the Act of 8 August 1980 on budgetary provisions for 1979-1980. Established in 1969 by electricity producers, its

- operators of nuclear power plants (Electrabel);[6]
- the state and its "golden share" in Synatom.

The Nuclear Funding Company is responsible for establishing (Article 11) and managing (Article 13) funds both for the dismantling of nuclear power plants[7] and for the management of spent fissile materials in such plants.[8] Nuclear operators are required to pay the Nuclear Funding Company amounts corresponding to estimations for dismantling[9] and for the management of spent fissile material. If funds are deemed to be insufficient during dismantling operations or management of fissile materials, operators will be required to add the extra funds necessary for such operations (Article 11.3 and 11.4 *in fine*).

The new Act specifies that dismantling will still be carried out by nuclear operators on behalf of the Nuclear Funding Company (Article 11.3.2) and that the management of fissile materials will also be exclusively carried out by the Nuclear Funding Company (Article 11.4.2). The relevant costs for these operations will be taken by the Company from the funds it has established.

4. The new Act establishes a Monitoring Committee in order to increase state control over the viability of funds established and managed by the Nuclear Funding Company. This Monitoring Committee is an administrative authority vested with legal personality (Article 3) and is composed of six persons (Article 4).[10] The Director General of the Federal Agency for Nuclear Control (AFCN)

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activities are focused on the nuclear fuel cycle. Today, it is exclusively responsible for the management of this cycle (see Agreement of 24 August 1981 between Synatom and the state). Very recently, Tractebel sold its 50% of the capital of Synatom, which it obtained in 1994, to Electrabel. Therefore, Synatom is now held at 100% by Electrabel, apart from the state's "golden share".

6. The Act refers here to "all operators which hold a royal licence to operate nuclear power plants or any company obtaining such rights by substitution". In Belgium, this means Electrabel. The co-operative company for electricity production SPE is also implicated, albeit in a minimal manner, in the industrial production of electricity by nuclear fission in Belgium. A Royal Order is under preparation to specify how the Act of 11 April 2003 will apply to this company SPE, in application of Article 24 of this Act.

7. The Act defines "dismantling funds" as "funds to cover the cost of shutting down the reactor in the nuclear power plant and of removing the nuclear fuel, dismantling the nuclear installation, cleaning up the site and managing the radioactive waste resulting from these operations" (Article 2.2). These funds are established to cover, for each nuclear power plant, the total current amount of dismantling costs at the time of the planned shut-down of the nuclear power plant concerned, i.e. at latest 40 years after the date of their entry into industrial service" (Article 11.3).

8. Defined in the Act as "funds to cover the cost of managing spent fissile materials in nuclear power plants" (Article 2.3). These funds are reviewed annually by the Nuclear Funding Company according to the quantity of spent fissile material produced during the corresponding year (Article 11.4).

9. As regards dismantling funds, at the end of 2003, nuclear operators were already required to provide the Nuclear Funding Company with an amount equivalent to the amount they have already constituted for the dismantling of nuclear power plants. As from the budget year 2003, nuclear operators transferred to the Nuclear Funding Company, in trimestrial payments, a total amount which corresponds to the estimations for the dismantling fund along with the estimations for the management of the spent fissile materials for the year in question (Article 11.2).

10. These persons are: the General Administrator of the Treasury; the chairperson of the Management Board of the Electricity and Gas Regulatory Committee, the chairperson of the Insurance Supervisory Authority, the senior civil servant in charge of the budget, a person nominated by the National Bank of Belgium, and the senior civil servant in charge of the energy administration.

and the Director General of the National Organisation for Radioactive Waste and Spent Fissile Materials (ONDRAF) are entitled to attend meetings of the Monitoring Committee and provide advisory opinions.

The Monitoring Committee essentially exercises an advisory and supervisory role vis-à-vis the Nuclear Funding Company (Article 5). Its opinions are binding upon the Nuclear Funding Company.[11]. These opinions are issued at the initiative of the Monitoring Committee itself or at the request of the competent authorities. They can cover:

- methods of funding the dismantling and management of spent fissile materials, and periodic evaluation of the appropriate nature of such methods (see Article 12);
- changes to the maximum percentage of funds representing the amount which the Nuclear Funding Company can lend to nuclear operators (see Article 14.2);
- categories of capital in which the Nuclear Funding Company invests the part of the funds which it may not lend to nuclear operators (see Article 14.5).

The Committee's capacity to issue opinions is completed by a control function in relation to:

- the possibility which the Nuclear Funding Company has to lend funds to a nuclear operator (see Article 14);
- the methods used to establish funds and manner in which funds are collected by the Nuclear Funding Company (see Article 5.2.2);

As regards the existence and adequacy of funds, the resolutions of the Monitoring Committee require the agreement of ONDRAF.

5.1 The new Belgian Act contains a particular characteristic, i.e. the possibility for the Nuclear Funding Company to lend operators part of the funds for dismantling and the management of spent fissile material (Article 14). This possibility is at the heart of the tension between the two simultaneous objectives of the law: to ensure the availability of funds when the time comes and not to unjustly penalise Belgian nuclear operators in the context of the liberalisation of the European energy market.

These loans are governed by a double set of agreements. A general agreement is signed between the Nuclear Funding Company, the Belgian state and the nuclear operators which sets out the solvability criteria that operators must demonstrate in order to borrow part of the funds from the Nuclear Funding Company. This was concluded on 3 May 2004 between the Nuclear Funding Company, the Belgian State and Electrabel.[12] The second agreement is the loan agreement itself, which is concluded between the Nuclear Funding Company and each operator.

The Act requires that in order to obtain a loan from the Nuclear Funding Company, two essential conditions should be met:

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11. See Parliamentary Documents, Chamber, 2002-2003, No. 50-2238/01, p. 7. The Nuclear Funding Committee may appeal such opinions before the Council of Ministers (Article 6).

12. For SPE, see footnote 6.

- the sum lent may not represent more than 75% of the total amount of these funds except during the transitory period;

- the Company may only loan money to nuclear operators which can be considered to be "good debtors" (credit quality).

Therefore, the Nuclear Funding Company may lend 75% of the funds, under commercial conditions and at rates used for industrial credit, to nuclear operators which can be considered to be "good debtors". However, during a transitional period established by the Act, the Company can lend 100% of these funds to the same nuclear operators (Article 14.1 *in fine*).

The remaining 25% which may not be loaned are to be invested by the Nuclear Funding Company in various and diverse shares which are not nuclear-related (Article 14.5). Furthermore, the Nuclear Funding Company must retain at all times sufficient liquid assets, in the form of shares or available stock, in order to finance all expenses linked to dismantling and management of spent nuclear materials for the following three years of operations (Article 14.6).

5.2 The granting and extent of the loan depend on the credit quality of the operator. The Act evaluates this based on two financial indicators (1) a ratio of debt vis-à-vis independent capital on the consolidated accounts of the operator and (2) a credit rating from an financial agency of international reputation. The more severe of the above criteria takes precedence. A conversion scale is used to evaluate the loan which may be granted to each operator vis-à-vis its credit quality (Article 14.2). This scale is established by the general agreement of 3 May 2004 concluded between the State, the Nuclear Funding Company and the nuclear operators.[13]

The terms and conditions of the loan, including reimbursement, are controlled by the Monitoring Committee (Article 14). The Nuclear Funding Company can increase or decrease the percentage of funds which may be lent to a particular nuclear operator, depending on how that operator's credit quality evolves, according to the established scale (Article 14.2.2).[14] Apart from during the transitional period, this percentage may not go beyond 75% of the assets of the Nuclear Funding Company.

5.3 The Act provides the Nuclear Funding Company with a general preferential right in favour of the property of nuclear operators, in the same manner as the Monitoring Committee requires the Nuclear Funding Company to totally or partially reimburse the loans concerned up to the amount of the reimbursements (Articles 16 and 17).

Furthermore, each loan agreement must include a "negative promise" clause which prevents the operator from reducing his assets by way of a mortgage or other security. The only real exception is the establishment of an equivalent security in favour of the Nuclear Funding Company, although there can always be ad hoc exceptions for existing securities, securities concluded in the normal course of business and securities to acquire new assets (Article 16.3).

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13. For SPE, see footnote 6.

14. The Monitoring Committee may choose not to lower this percentage but to establish a property or personal guarantee in favour of the Nuclear Funding Company (Article 14.2.3). If the Committee reduces the percentage of funds which the Company can lend, it indicates the amount which should be reimbursed and the shortest possible deadline (Article 15).

Administrative fines may be imposed by the Monitoring Committee if the information requirements in Articles 7 and 12 are violated (Article 22).[15] There are also fines for breach of Article 18. This probably refers to the information obligation contained in Article 19 of the Act.[16]

6. The Act of 11 April 2003 only concerns nuclear power plants[17] and does not change the funding arrangements or management for operators or owners of other nuclear installations or contaminated sites in Belgium. Today, there are three dismantling and rehabilitation funds which are supervised by ONDRAF. They deal with the Centre for the study of nuclear energy CEN-SCK site, the Belgoproces (1 and 2) site and the Institute for Radioelements site.

Brazil

Organisation and structure

Order establishing an emergency response committee for nuclear emergencies (2003)

This Order No. 777 was adopted on 30 October 2003 by the Minister for Science and Technology, and was published in the Official Journal of 31 October 2003.

It aims to establish an Emergency Response Committee for Nuclear Emergencies in the municipality of Angra dos Reis. This Committee is to assist the Commission for the Co-ordination of the Protection of the Brazilian Nuclear Programme (COPRON) in relation to emergency response to incidents in the Almirante Álvaro Alberto nuclear power plant (hereinafter referred to as the AAANPP).

Pursuant to Section 5 of the order, the Committee is in charge of:

- examining proposals for amendments of standards and directives governing the activities of the Protection System for the Brazilian Nuclear Programme (SIPRON) vis-à-vis the AAANPP;
- drafting of studies, reports and suggestions concerning the powers of COPRON in relation to the activities of SIPRON for the AAANPP;
- drafting of proposals to update the legislation governing the activities of SIPRON for the AANPP;
- planning and submission to COPRON of an annual report on SIPRON's activities for the AAANPP;
- planning and co-ordination of exercises on response on nuclear emergencies in the AAANPP, pursuant to the annual report on SIPRON's activities;

15. See the remarks of the legislative section of the Council of State in relation to the possible requalification of these administrative sanctions into criminal sanctions (Opinion No. 34, 184/1, Parliamentary Documents, Chamber, 2002-2003, No. 50-2238/01, p. 25.

16. The authors of the Act do not seem to have taken into account the modifications to the terms of Article 18 in the first draft Act (Parliamentary Documents, Chamber, 2002-2003, No. 50-2238/01, p. 22) which was transferred to Article 19 of the Act as adopted.

17. Defined by the Act as "any nuclear installation which industrially produces electricity".

- drafting and co-ordination of a programme for verification, planning and response in relation to nuclear emergencies in the AAANPP;
- evaluating the development of nuclear emergency exercises carried out under the conditions envisaged by this programme, as well as the proposal and adoption of measures and procedures necessary to improve existing standards;
- follow-up of planning and public information in respect of emergency situations at the AAANPP;
- establishing training programmes for staff in relation to emergency response.

Democratic Republic of the Congo

Radiation protection (including nuclear emergency planning)

Act on protection against the dangers of ionising radiation and on the physical protection of nuclear materials and installations (2002)

This Act No. 017/2002 was adopted and entered into force on 16 October 2002. It aims to protect the public, workers and the environment against the dangerous effects of ionising radiation. It also covers the physical protection of nuclear installations and materials and regulates radiological emergencies.

Any activity involving exposure to ionising radiation is subject to a licence and must take place in accordance with the basic radiation protection and safety standards defined by the International Atomic Energy Agency.

The regulatory control of nuclear activities is vested in the National Committee on Protection against Ionising Radiation (*Comité national de protection contre les rayonnement ionisants* – CNPRI). The members of this entity, which has legal personality, are nominated by the President of the Republic upon proposal of the Minister holding the portfolio governing scientific and technological research.

Its principal tasks are:

- preparation of regulations and codes on radiation protection and safety, plus the amendment of existing texts;
- control of the application by authorised persons of protective measures and monitoring for the personnel, the installations and equipment;
- safety control in all field of use of ionising radiation;
- establishing dose limits applicable to workers and the population;
- emergency measures to be taken in the case of risk or radiological emergency.

The CNPRI is furthermore empowered to deliver licences for the use and possession of radiation sources. It is assisted by the National Radiation Protection Institute whose objective is to promote measures and methods for ionising radiation protection at the national level.

The Act regulates the functions of qualified radiation protection agents designated by the CNPRI, who have inspector status. They may control establishments or installations where radioactive substances or ionising radiation-generating equipment is held, and they are authorised to take the necessary measures for execution of the Act.

A National Advisory Commission on Radiation Protection is also established. It provides reasoned opinions on all questions linked to radiological safety. Its organisation and operations are set out in a Decree of the President of the Republic.

Licence-holders for nuclear materials are responsible for safety, radiation protection, physical protection and emergency response plans.

Finally, the Act governs the physical protection of nuclear materials and installations. It divides nuclear materials into three categories and sets out conditions for the storage and use of nuclear materials according to these categories. The Act contains provisions governing the physical protection of nuclear materials during their transport on national territory, as well as during international transport. Nuclear materials which are being used or stored are also subject to physical protection rules established by the Act. It defines those measures which the operator is required to take (inventory, access to zones where nuclear materials are kept, regular evaluations of physical protection systems).

Penal provisions apply in the case of non-authorised possession of nuclear materials or breach of the provisions of this Act.

Croatia

General legislation

Act on Nuclear Safety (2003)∗

The new Act on Nuclear Safety was adopted by the Croatian parliament on 15 October 2003 and promulgated by the president on 21 October 2003. This Act repeals and replaces the nuclear safety provisions of the legislation inherited from the former Yugoslavia, namely the Act on Ionising Radiation Protection and Nuclear Plants and Facilities Safety Measure of 1981 and the Act on Radiation Protection and the Safe Use of Nuclear Energy of 1984. The radiation protection provisions of these Acts had already been repealed and replaced with the adoption of the Act on Protection against Ionising Radiation in 1999 (see *Nuclear Law Bulletin* No. 65; the text of the Act is reproduced in the Supplement to that *Bulletin*).

The primary purpose of the Act on Nuclear Safety is stated in its Article 1 to be the regulation of safety in relation to the use of nuclear materials and equipment, and the establishment of the State Office for Nuclear Safety. A user of nuclear material or specified equipment is solely responsible for safety and protective measures in the performance of a nuclear activity. Adequate financial resources and a sufficient number of qualified staff to ensure nuclear safety must be guaranteed. Licences to perform nuclear activities must be obtained from the state body with jurisdiction over nuclear safety (see *infra*) with the exception of permits to transport or to import or export nuclear material or specified equipment.

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

Nuclear safety and protection principles as outlined in this Act and in the international agreements to which Croatia is a Party must be taken into account when determining the siting, planning, construction, operation and decommissioning of nuclear facilities. Similarly, work having an impact on nuclear safety must be carried out in accordance with quality assurance requirements.

A user of nuclear materials or specified equipment is required to:

- monitor radioactivity in the vicinity of the installation where the activity is performed;
- ensure the professional qualifications and training of workers in such facilities;
- maintain records on nuclear material and submit reports on such records to the state body with jurisdiction over nuclear safety;
- develop an emergency plan and programme for measures to be taken in the event of a nuclear incident.

A Technical Support Centre shall prepare and implement the necessary expert and technical activities of the national programme for emergency preparedness and response. In the event of an incident, the Technical Support Centre shall offer expert assistance to the national crisis response organisation.

This Act establishes the state body with jurisdiction over nuclear safety, namely the State Office for Nuclear Safety (SONS). This Office shall, *inter alia*, carry out the following tasks:

- issue licences for the performance of nuclear activities;
- conduct safety analyses and issue certifications concerning siting, planning, construction, operation and decommissioning of nuclear facilities;
- monitor safety conditions at nuclear power plants in the region;
- supervise the implementation of this act and secondary legislation based upon it;
- carry out inspections;
- ensure expert assistance for nuclear emergency plans and measures against illicit trafficking;
- co-operate with domestic and international organisations in the fulfilment of Croatia's international commitments;
- support research and development activities.

The Director of the SONS shall be appointed by the government. The Act provides that the Ministry of the Economy shall carry out the tasks of the SONS until such time as it commences operations, which shall not be later than 1 January 2004. The SONS shall also be attributed a number of civil servants from the Ministry in proportion to the tasks it has assumed.

A Council for Nuclear Safety is also established as an advisory body of the Croatian parliament. It shall provide its opinion on draft legislation based on the provisions of this Act and other implementing legislation, submit proposals concerning development strategy for and organisation of nuclear safety at national level, and monitor international co-operation in this field. The Council is composed of five experts in the nuclear safety field who shall be appointed and dismissed by the parliament upon proposal by the government.

The Act sets out penalties for violation of its requirements, ranging in monetary terms from 1 000 Croatian kuna (HRK) to HRK 100 000.[18]

Finland

General legislation

Amendment to the Nuclear Energy Act (2004)

1 January 2004 saw the entry into force of an amendment to the Nuclear Energy Act (see *Nuclear Law Bulletin* Nos. 21, 26, 29, 35, 41, 43, 55; the text of the Act is reproduced in the Supplement to *Bulletin* No. 41). This Amendment added some new minor tasks to the charter of the Finnish State Nuclear Waste Management Fund. The Fund is now obliged to collect monies from the two Finnish nuclear companies and VTT, which is a state research centre which operates a small research reactor. Such monies shall finance nuclear research, with a view to guaranteeing that certain nuclear expertise is available to the state agencies controlling and supervising nuclear operations in Finland. Previously, this was taken care of by the relevant agencies in co-operation with the companies on a voluntary basis. This will add some EUR 3 million annually to the capital of the Fund, which is approximately EUR 1.3 billion at present.

France

Organisation and structure

Order on the organisation of the Ministry of Defence in relation to the operation of military nuclear systems and major nuclear installations classified as secret in the fields of nuclear security (2003)

This Order, adopted on 27 November 2003, repeals the Order of 27 July 2001 on the same subject (see *Nuclear Law Bulletin* No. 69).

This Order aims to clarify the roles of those responsible for the design, construction, use and dismantling of military nuclear systems, major nuclear installations classified as secret and associated supporting equipment, which are subject to special nuclear security rules.

From now on, the responsibilities of the Ministry of Defence as operator of such systems and installations, or in relation to the transport of associated fuel components, are vested in the General Delegate for Procurement, the Chief of Naval Staff and the Chief of Air Force Staff. The Order provides that the General Delegation for Procurement and the Atomic Energy Commission are responsible for certifying and approving systems and installations, and for quality control.

The General Delegate for Procurement, the Chief of Naval Staff and the Chief of Air Force Staff each have, in their own field of activity, quality control including in particular a form of internal control for which an inspector for nuclear security measures reports directly to them.

From now on, responsibilities are divided between:

18. This corresponds to a scale between EUR 140 and EUR 14 000.

- the authorities which identify general organisational principles in order to reach and maintain the desired level of safety for military nuclear systems, major nuclear installations classified as secret or transport of associated fuel components;
- the authorities in charge of implementation which deploy the necessary material and human resources;
- the territorial military authorities which co-ordinate actions taken by the authorities and the state authorities which are responsible for preventing accidents or incidents, on measures to be taken in the event of an accident/incident and for the radiological monitoring of the environment.

Order establishing a commission on ionising radiation sources (2004)

This Order of 27 January 2004 establishes a Commission on Ionising Radiation Sources within the Radiation Protection Section of the Higher Commission on Public Health. This Commission shall:

- propose opinions or recommendations on all radiation protection subjects linked to the use of ionising radiation;
- participate in the drafting of regulations and technical instructions on these subjects.

The field of activity of the Commission covers artificial and natural sources of radionuclides as well as sources of ionising radiation generated by electrical apparatus, with the exception of questions concerning the protection of persons exposed for medical purposes.

Radiation protection (including nuclear emergency planning)

Order on the organisation of a national network to measure radioactivity in the environment (2003)

This Order, adopted on 17 October 2003, establishes a national network to measure radioactivity in the environment, pursuant to Article R. 1333-11 of the Public Health Code, which was inserted pursuant to the Decree of 4 April 2002 on the General Protection of Persons against Ionising Radiation (see *Nuclear Law Bulletin* No. 70).

The Order aims to set down criteria governing the organisation of this network, measures for information of the public and standards which must be met by certified laboratories.

As regards organisation of the national network, its general principles are established by the General Directorate for Nuclear Safety and Radiation Protection (*Direction générale de la sûreté nucléaire et de la radioprotection* – DGSNR) following the opinion of a pilot committee whose members are nominated by an order of the Minister for Health.

The Institute for Radiation Protection and Nuclear Safety (*l'Institut de radioprotection et de sûreté nucléaire* – IRSN) performs secretariat functions for this committee and manages the national network. For this purpose it ensures:

- the centralisation and use of the results of tests;
- the validation and application of the results of these tests;

- that this data is made available and disseminated to administrative authorities responsible for nuclear activities and the public;
- conservation and archiving of such data.

The IRSN drafts a management report each year on the national network and a summary report on the radiological state of the environment where the data collected by the network is conclusive. This summary report is complemented by a presentation on estimates of the radiological impact of the major nuclear activities. This is submitted to the pilot committee, then transferred to the DGSNR.

The information gathered through the national network is made available to the Public Health Institute (*Institut de veille sanitaire)*. Finally, the data collected, the opinions of the pilot committee and the annual report on the management of the national network established by the IRSN are released to the public.

The second part of the Order is devoted to criteria on the authorisation and certification of laboratories which measure the radioactivity in the environment. A Certification Commission is responsible for delivering or refusing requests for certification submitted by the laboratories. The Commission is composed of 12 members who are nominated by Order of the Minister for Health. Certification is delivered by joint Order of the Minister for the Environment and the Minister for Health for a maximum period of four years. The Order specifies for which categories of analysis the certification is valid.

Certification requires the laboratory to submit the results of its radiological analysis of the environment to the IRSN which is allowed to put them to use. Without prejudice to possible judicial proceedings, any laboratory which includes false declarations in the file supporting its request for certification shall be subject to withdrawal of that certification. If any conditions attached to the certification are violated, the certification can be temporarily suspended or withdrawn by joint decision of the Minister for the Environment and the Minister for Health, upon the opinion of the Certification Commission.

In the event of a radiological emergency, where the tests carried out by the IRSN reveal an abnormal contamination rate which could lead to the annual dose rate of 1 mSv being exceeded, the DGSNR and competent police authority are informed without delay and they set up the necessary measures to inform the public. Laboratories which are certified by the Minister for the Environment and the Minister for Health provide the IRSN promptly with the results of their tests.

Order defining the certification conditions for bodies carrying out radiation protection monitoring (2004)

This Order was adopted on 9 January 2004. It defines the conditions governing certification of bodies responsible for monitoring the organisation and efficiency of technical measures for the management of radioactive sources. It sets out in particular the list of documents which must be annexed to the request for certification, which should be addressed to the General Directorate for Nuclear Safety and Radiation Protection. The initial certification is delivered for a maximum duration of one year, but may be renewed for three years.

The activities of certified bodies are themselves controlled by health inspectors or engineers pursuant to Article L. 421-61 of the Public Health Code. Their certification can therefore be suspended

or revoked at any moment for reasons relation to qualifications of staff, materials used or the quality of monitoring reports.

According to the Order, such reports should set out the identified breaches and propose preventive or corrective measures which should be implemented. They are addressed to the director of the establishment, plus also to the Health Inspector, the Prefect and the General Director for Nuclear Safety and Radiation Protection. Furthermore, each body must draft an annual report indicating the number and nature of controls carried out, as well as the principal lessons learned.

Order setting out exemption levels in respect of licensing of nuclear activities set out in Article R. 1333-26 of the Public Health Code (2003)

This Order, adopted on 2 December 2003, aims to set out exemption levels in respect of licensing of nuclear activities listed in Article R. 1333-26 of the Public Health Code, with the exception of those used for medicine, dentistry, human biology and biomedical research:

- manufacture of radionuclides;
- manufacture of products or equipment containing such products;
- import or export of radionuclides, or of products or equipment containing radionuclides;
- distribution of radionuclides, or of products or equipment containing radionuclides;
- use of apparatus emitting X-rays or radioactive sources and the use of accelerators other than electronic microscopes;
- the irradiation of products of any nature, including foodstuffs.

Order on methods for training of persons specialised in radiation protection and certification of the service provider (2003)

This Order of 29 December 2003 was adopted pursuant to Article R. 231-106 of the Labour Code which provides that "the person competent for radiation protection purposes may not be designated until he/she has successfully followed radiation protection training provided by certified bodies."

The Order sets out conditions governing radiation protection training for such persons. A training certificate which is valid for five years shall be granted after an examination. Following expiry of this period, a further examination is carried out under similar conditions.

Order on criteria for certification of authorities in charge of individual monitoring of ionising radiation workers (2003)

This Order was adopted on 6 December 2003 in application of Decree No. 2003-296 of 31 March 2003 on the Protection of Workers against the Dangers arising from Ionising Radiation (see *Nuclear Law Bulletin* No. 71). It sets out criteria and conditions governing certification of in-house medical services, laboratories for medical tests and bodies which measure the exposure of ionising radiation workers.

The Order also sets out conditions governing individual dose monitoring for radiation workers, specifies which materials and methods should be used and establishes procedures for transmission of dosimetric results.

Regime of radioactive materials (including physical protection)

Order regarding the protection of national defence secrecy in the field of nuclear material control and protection (2004)

This Order, adopted on 26 January 2004 in application of Decree No. 98-608 of 17 July 1998 on the Protection of National Defence Secrecy, repeals and replaces the Order of 24 July 2003 on the same subject (see *Nuclear Law Bulletin* No. 72). The Order classifies certain measures, procedures, objects, documents, electronic data and files concerning nuclear materials as a national security secret. It specifies that the only information which should be classified is that which might jeopardise or gravely threaten the physical protection of nuclear materials in relation to the prevention of actions of ill intent or proliferation, if it were released.

Germany

Radiation protection

X-Ray Ordinance

On 30 April 2003, the Federal Minister for the Environment, Nature Conservation and Nuclear Safety published a consolidated version of the Ordinance on the Protection against Damage caused by X-Rays (X-Ray Ordinance) as last amended on 18 July 2002 (see *Nuclear Law Bulletin* No. 70) in Bundesgesetzblatt 2003 I p. 605.

Transport of radioactive materials

Ordinance on the Transportation of Dangerous Goods by Road and Rail (2003)

On 10 September 2003, a consolidated version of the Ordinance on the Transportation of Dangerous Goods by Road and Rail was published in *Bundesgesetzblatt* 2003 I p. 1913. The new version contains, in particular, the amendments introduced by the Ordinance of 28 April 2003 (*Bundesgesetzblatt* 2003 p. 1 I p. 595) and the Ordinance of 11 December 2001 (*Bundesgesetzblatt* 2001 I p. 3529), which partly entered into force on 1 July 2001 and partly on 1 January and 6 May 2003. Pursuant to Section 6, paragraph 3, the Federal Office for Radiation Protection is competent for the implementation of the Ordinance in the field of transport of radioactive materials.

Ordinance on the Transportation of Dangerous Goods by Internal Waterways (2004)

A new Ordinance on the Transportation of Dangerous Goods by Internal Waterways was issued on 31 January 2004 (*Bundesgesetzblatt* 2004 I p. 136). The Ordinance applies to the transportation of dangerous goods on all navigable waterways in the territory of Germany including the border-crossing transportation of dangerous goods on the Rhine and the Mosel rivers (Section 1). The competent

authority for the implementation of the Ordinance regarding the transport of radioactive material is the Federal Office for Radiation Protection, in accordance with Section 6, paragraph 6.

Ordinance on the Transportation of Dangerous Goods on the Rhine and Mosel rivers (2003)

A new version of the Ordinance on the Transportation of Dangerous Goods on the Rhine and Mosel rivers was issued on 12 July 2003 (*Bundesgesetzblatt* 2003 II p. 648 and Annex volume).

Ordinance on the Maritime Carriage of Dangerous Goods (2003)

On 4 November 2003, a new Ordinance on the Maritime Carriage of Dangerous Goods was published in *Bundesgesetzblatt* 2003 I p. 2286. This Ordinance complements the previous Ordinances on transportation by internal waterways. The competent authority for the implementation of the Ordinance is the Federal Office for Radiation Protection pursuant to Section 6, paragraph 9 of the Ordinance.

Regulations on nuclear trade (including non-proliferation)

Since the last report in *Nuclear Law Bulletin* No. 67, p. 35, the regulations on nuclear trade have been amended on a number of occasions. The amendments are partly designed to implement applicable European Union regulations, in particular in the field of dual use:

Amendments of the 1961 Foreign Trade Act

The 1961 Foreign Trade Act (See *Nuclear Law Bulletin* Nos. 46, 54 and 59) has been amended frequently [*Bundesgesetzblatt* 1996 I p. 1850; 1997 I p. 966 (967), 1430 (1439), 3108 (3115); 1998 I p. 1242 (1254); 1999 I p. 2822; 2000 I p. 632 (634), 1956 (1959); 2001 p. 1254 (1260), 2785 (2813), 2992 (2997); 2002 I p. 3165 (3166)]. The Foreign Trade Act was last amended by Article 118 of the Ordinance on Adapting Competences of 27 November 2003 [*Bundesgesetzblatt* 2003 I p. 2304 (2318)].

Amendments to the Nuclear Trade Ordinance (2001-2003)

The 55th to 61st Amendments to the Nuclear Trade Ordinance are to be found at *Bundesanzeiger* 2001 p. 14621; 2002 p. 6077, 7189, 26497; 2003 p. 5293, 19421. The latest amendment is the 61st Ordinance to Amend the Nuclear Trade Ordinance of 26 November 2003 (*Bundesanzeiger* 2003 p. 25473).

Amendments to the Import List (2000-2003)

The 143rd to 148th Ordinance to Amend the Import List are to be found at *Bundesanzeiger* 2000, p. 24069; 2001 p. 16105, 25505; 2002 p. 7765, 22813, 26681; 2003 p. 19917. The latest amendment is the 148th Ordinance of 15 December 2003 (*Bundesanzeiger* 2003 p. 26137).

Amendments to the Export List (2000-2003)

The 98th to 102nd Ordinance to Amend the Export List are to be found at *Bundesanzeiger* 2000, p. 18579; 2001 p. 22581; 2002 p. 7069, 26498. The latest amendment is the 102nd Ordinance of 26 November 2003 (*Bundesanzeiger* 2003 p. 25473).

Hungary

General legislation

Amendment of the 1996 Atomic Energy Act (2003)

The 1996 Atomic Energy Act (see *Nuclear Law Bulletin* Nos. 59 and 60; the text of the Act is reproduced in the Supplement to *Bulletin* No. 60) was amended by Section 81 of Act XLII of 2003 which entered into force on 1 August 2003. This amendment provides that governmental tasks relating to the safe use of nuclear energy, nuclear safety and radiation protection as described in that Act shall be carried out by the Hungarian Atomic Energy Authority (HAEA) and the Ministers concerned, whose work shall be co-ordinated by the Atomic Energy Co-ordination Council. The Council also monitors the enforcement of nuclear legislation and the application of the regulatory regime in this field.

The amendment provides that the HAEA is a central administrative body vested with regulatory independence. It is supervised by a Minister appointed by the Prime Minister, and shall be funded by a separate budgetary line within that Ministry. The Director General of the HAEA and his/her deputies shall be appointed and dismissed by the Prime Minister. The HAEA shall monitor the general trends of international development in the atomic energy field and make proposals for domestic measures on this basis. It shall further monitor the enforcement of legal regulations within its field of competence and make proposals for amending or enacting appropriate legislation.

Decree No. 114/2003 on the Scope of Duties, Authority and Competence to Impose Penalties of the Hungarian Atomic Energy Authority, and on the Activities of the Atomic Energy Co-ordination Council was adopted on 29 July 2003 to provide further details in this respect (see *Nuclear Law Bulletin* No. 72).

Italy

Radioactive waste management

Decrees on radioactive waste management (2003)

Since March 2003, various decrees and ordinances have been adopted in Italy addressing decommissioning of nuclear installations and management of radioactive waste. These measures primarily address the need to ensure security conditions for nuclear installations and radioactive waste, in particular in the current climate of risk of international terrorism.

In connection with the above, a Prime Minister's Decree adopted on 7 March 2003 laid down conditions and requirements in the field of radioactive waste management and called upon the Company for the Management of Nuclear Installations (*Società per la Gestione degli Impianti Nucleari* – SOGIN) to take all necessary actions to ensure that relevant operations be carried out

safely. The Decree provides for further measures, a number of which have been implemented by Ordinances (by the Chairperson of SOGIN, who was appointed ad hoc Commissioner by the Prime Minister's Decree).

An important element of the 7 March Decree concerned the identification of one or more sites for the disposal of radioactive waste. In this connection, a further Decree (No. 314 of 14 November 2003) was adopted by the government with immediate effect, and was to be converted into law (i.e. approved by the parliament as per the Italian constitution) within 60 days. The identified site was situated in Scanzano Jonico, in the region of Basilicata (southern Italy). However, the very strong opposition by the local population caused the Decree to be extensively amended during discussion in parliament, and the Decree-Law finally adopted (No. 368 of 24 December 2003, published in Official Journal No. 6 of 9 January 2004) is based on the following precepts:

- the (national) repository is intended for category III waste (high-level radioactive waste) only;
- the location of the repository shall be identified within one year from the entry into force of this Decree-Law, having acquired the opinion of an ad hoc technical-scientific Commission, composed of 19 highly qualified experts. The site selection is to be validated by the Council of Ministers within one year, on the basis of the opinions of the above-mentioned Commission and other concerned bodies (National Research Council – CNR; National Environmental Protection Agency – APAT; National Agency for New Technologies, Energy and the Environment – ENEA);
- the repository will host the waste referred to above and irradiated fuel for final disposal. The safe storage of category I and II waste (low- and medium-level radioactive waste) will be governed by a Prime Minister's decree and SOGIN will take care of the operational aspects;
- local economic incentives shall be provided to regions where nuclear power stations and fuel cycle installations are situated until such installations are definitively decommissioned.

Romania

Organisation and structure

Decision approving the internal rules of the National Commission for the Control of Nuclear Activities (CNCAN) (2003)

This Governmental Decision No. 1627 was adopted on 23 December 2003 and was published in Official Gazette No. 69 of 27 January 2004. The legal basis for this Decision was Article 4 of the 1996 Law on the Safe Conduct of Nuclear Activities, as amended (see *Nuclear Law Bulletin* Nos. 59, 61, 68 and 72; the text of the Law is reproduced in the Supplement to *Bulletin* No. 59). The CNCAN is a public institution of national interest, has legal personality and is financially independent. It is responsible for:

- issuing regulations expanding on general requirements relevant to nuclear safety, radiation protection, quality assurance, non-proliferation of nuclear weapons, physical protection, transport of radioactive materials, management of radioactive waste and spent nuclear fuel, intervention in the case of a nuclear accident;

- issuing regulations regarding authorisation and control procedures in the nuclear field;
- initiating legislation in the nuclear field;
- reviewing existing regulations to ensure consistency with the relevant international standards and conventions ratified by Romania;
- ordering the necessary measures to be taken for the enforcement of regulations in the nuclear field;
- approving nuclear emergency intervention plans;
- ensuring co-operation with the competent international and regional institutions;
- organising public information in the nuclear sector.

This Decision provides further details on the CNCAN's licensing and control functions. It also contains detailed provisions on the role and duties of the CNCAN Chairperson and on the organisational structure of the CNCAN, including the Management Council and the Consultative Council.

The CNCAN shall finance its activities entirely from its revenue, namely licensing fees, contributions of international bodies and economic entities and interest on its available funds.

Decision on the organisation of the Nuclear Agency (2003)

Government Decision No. 1425 of 4 December 2003 approving the regulations for the organisation and functioning of the Nuclear Agency was published in Official Gazette No. 904 of 17 December 2003. The legal basis for this Decision was the Ordinance on the Use of Nuclear Energy Exclusively for Peaceful Purposes of 2003 (see *Nuclear Law Bulletin* No. 72). That Ordinance provided for the establishment of a Romanian Nuclear Agency through the reorganisation of the National Agency for Atomic Energy within the Ministry of Education, Research and Youth. This Decision provides more detailed provisions on the functions, responsibilities and structure of the Nuclear Agency.

Ordinance on the Reorganisation of the Central Public Administration (2004)

This Government Emergency Ordinance No. 11 of 2004 was published in Official Gazette No. 266 of 2004. Pursuant to this instrument, the Prime Minister is to co-ordinate the National Commission for the Control of Nuclear Activities (CNCAN) and the Nuclear Agency through its Chancellor's Office.

Radiation protection

Norms for operational radiation protection for the conduct of non-destructive control practices involving ionising radiation (2003)

These Norms were approved by Order No. 155 of 2 October 2003 of the Chairperson of the National Commission for the Control of Nuclear Activities (CNCAN) and were published in Official Gazette No. 873 of 2003. They are amongst those measures adopted to implement Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the health of workers and the

general public against the dangers arising from ionising radiation. These Norms apply to non-destructive control practices with ionising radiation involving the risk of exposure to radiation generated by installations using sealed sources, X-ray generators and electron generators. They establish the responsibilities of licensees to establish and maintain an adequate operational radiation protection system and the duties incumbent upon operators and radiological protection experts in order to obtain a licence from the CNCAN.

Norms on radiological safety in diagnosis and interventional radiology procedures (2003)

These Norms were approved by Order No. 173 of 16 October 2003 of the Chairperson of the CNCAN and were published in Official Gazette No. 924 of 2003. They apply to all medical, professional and general public exposures, including potential exposure. They establish the requirements for licensing and inspection by the CNCAN of diagnostic and interventional radiology procedures. The licensee is required to engage in an effective safety and prevention campaign, assisted by staff who are appropriately qualified and have benefited from special training. The licence-holder is required to develop, implement and document a radiation protection programme which is consistent with the nature and degree of risk associated with that particular radiological procedure.

Norms on radiological safety of decommissioned mining and/or processing facilities for uranium and/or thorium ores (2003)

The full title of these Norms is "Norms on radiological safety of decommissioned mining and/or processing facilities for uranium and/or thorium ores – Criteria for the release from the authorisation requirements of the CNCAN for the purpose of assigning a different use to buildings, materials, installation waste dumps and land that has been contaminated during mining and/or processing of uranium or thorium ore". They were approved by Order No. 207 of 24 November 2003 of the Chairperson of the CNCAN and were published in Official Gazette No. 933 of 2003. These Norms were intended to complete the provisions of the Basic Norms for Radiological Safety adopted in 2000 (see *Nuclear Law Bulletin* No. 66), by adding requirements concerning the decommissioning and release of buildings, materials, installations etc. which have been contaminated during such mining activities.

Radioactive waste management

Decision on the organisation of the National Agency for Radioactive Waste (2003)

Government Decision No. 1601 of 23 December 2003 which was published in Official Gazette No. 33 of 15 January 2004 regulates the organisation and functions of the National Agency for Radioactive Waste (NARW). This Decision was adopted pursuant to the Ordinance of 2003 on the Management of Spent Nuclear Fuel and Radioactive Waste (see *Nuclear Law Bulletin* No. 72). The NARW, a legal entity under the authority of the Ministry of Economy and Commerce, is the national authority competent for the nationwide co-ordination of the safe management of spent nuclear fuel and radioactive waste, including final storage. The NARW has the following functions:

- it submits to the Nuclear Agency for approval the Medium and Long Term National Strategy regarding the management of spent nuclear fuel and radioactive waste, including final storage, and the decommissioning of nuclear and radiological installations (the National Strategy) and the Annual Plan of Action (APA);

- through its authorised representatives, it registers offences and applies sanctions as set out in Government Ordinance No. 11/2003 on the Management of Spent Nuclear Fuel and Radioactive Waste;
- it issues guidelines setting out requirements and technical specifications regarding the management of spent nuclear fuel and radioactive waste.

NARW activities are financed by direct annual contributions of licensees (see Decision No. 1568 *infra*), donations, sponsorship or financial assistance, and other sources of funds as approved by the government.

Decision on contributions to the National Agency for Radioactive Waste (2003)

Government Decision No. 1568 of 18 December 2003, which was published in Official Gazette No. 16 of 8 January 2004, set out the amount of the direct annual contributions to be paid by licensees to the National Agency for Radioactive Waste (NARW). This Decision was adopted pursuant to the Ordinance of 2003 on the Management of Spent Nuclear Fuel and Radioactive Waste (see *Nuclear Law Bulletin* No. 72). There are two types of direct annual contributions for licensees: in respect of spent nuclear fuel, it is calculated according to the power generated annually or the amount of heat released annually by a research reactor. In respect of low- or medium-level radioactive waste, a levy is calculated for each cubic metre prepared for the purpose of interim or permanent storage.

Slovenia

Radiation protection (including nuclear emergency planning)

Regulation on the Expert Council for Radiation and Nuclear Safety (2003)

This Regulation was adopted on 12 March 2003 and published on 11 April 2003 (Official Gazette RS 35/2003). It determines the working procedures of the Expert Council for Radiation Protection and Nuclear Safety in relation to the physical protection of nuclear materials and facilities, safeguards applicable to nuclear goods, radioactivity and radiation protection in the environment and the use of radiation sources other than in health and veterinary care. The Regulation also establishes the frequency of the sessions of the Expert Council, which performs the tasks as defined in the 2002 Act on Protection against Ionising Radiation and Nuclear Safety (see *Nuclear Law Bulletin* No. 70). It is responsible for providing opinions and making proposals in relation to:

- drafting of regulations pursuant to the Act;
- the annual report on radiation protection and nuclear safety;
- the annual programme of work of the Slovenian Nuclear Safety Administration (SNSA); and
- other issues where requested by the SNSA or by the Ministry of Environment, Spatial Planning and Energy.

Regulation on the Expert Council on issues relating to protection of the population against ionising radiation, radiological procedures and the use of radiation sources in health and veterinary care (2003)

This Regulation was adopted on 12 June 2003 and published on 27 June 2003 (Official Gazette RS 62/2003). It determines the working procedures of the Expert Council, the frequency of its sessions, deadlines for providing opinions, and other matters ensuring its efficient operation. The Expert Council provides opinions and makes proposals in relation to:

- drafting of regulations pursuant to the 2002 Act on Protection against Ionising Radiation and Nuclear Safety (see *Nuclear Law Bulletin* No. 70);
- the annual report on radiation protection and nuclear safety;
- the annual programme of work of the Slovenian Radiation Protection Administration (SRPA); and
- other issues where requested by the SRPA or by the Ministry of Health.

Regulation on conditions for the use of radiation sources in health care (2003)

This Regulation was adopted on 24 October 2003 and published on 13 November 2003 (Official Gazette RS 111/2003). It lays down general principles governing the protection of patients and other persons exposed to ionising radiation for medical purposes during medical diagnosis and/or treatment; preventive medical surveillance of workers; systematic screening programmes; voluntary participation in testing programmes; therapeutic or bio-medical research; and medico-legal procedures. The Regulation also deals with the protection of individuals who help in the care of patients and other persons exposed to ionising radiation in medicine.

Regulation on conditions and methods of assessment of doses for the protection of workers and the population against ionising radiation (2003)

This Regulation was adopted on 24 October 2003 and published on 24 November 2003 (Official Gazette RS 115/2003). It lays down the conditions for issuing a licence in cases when planned doses exceed dose limits established for an individual exposed worker who is carrying out exceptional tasks, and the obligatory measures which must be taken to reduce the consequences of excessive exposure of the worker. It also establishes provisions governing the radiation protection assessment of exposed workers, deadlines and other criteria in relation to the submission, review and approval of amendments to radiation protection assessments of such workers; methodology in relation to the evaluation of doses resulting from external radiation and doses resulting from internal radiation due to the intake of radionuclides. It sets out dose limits for workers or members of the public exposed to radon and the methods to be used for data collection and management of documentation.

Regulation on medical surveillance of exposed workers (2003)

This Regulation was adopted on 23 December 2003 and published on 15 January 2004 (Official Gazette RS 2/2004). It sets out procedures governing the medical surveillance of exposed workers working in supervised and controlled areas; criteria for deciding upon special medical surveillance; and the decontamination and further treatment of exposed workers in cases where dose limits are exceeded. The Regulation also lays down criteria on the basis of which an approved medical

practitioner may carry out medical surveillance after the worker in question has ceased all professional activities involving exposure.

Regulation on obligations of the person carrying out a radiation practice and of the user of a radiation source (2003)

This Regulation was adopted on 28 November 2003 and published on 12 February 2004 (Official Gazette RS 13/2004). It sets out measures for the classification of working areas as supervised or controlled areas and the working conditions and obligations of employers with respect to radiation protection in these areas; the classification of exposed workers into categories A and B; and the conditions, method, scope and frequency of radiation protection assessments in the workplace. The Regulation also determines the method to be used for dose assessment in cases where direct measurements are not possible; the type and quality of the measuring equipment; the method and scope of reports on the results of assessments and dose limitations under normal and exceptional circumstances. Further provisions also govern obligations of employers in relation to education and training of radiation workers.

Regulation on the qualifications of experts in the area of ionising radiation (2004)

This Regulation was adopted on 30 January 2004 and was published on 27 February 2004 (Official Gazette RS 18/2004). It sets out the respective requirements for qualifications and examinations necessary to carry out the tasks of approved radiation protection experts, those responsible for technical checks of radiation sources, persons involved in dosimetric services and medical physics experts.

Regulation on the personal dose data of radiation workers (2004)

This Regulation was adopted on 19 March 2004 and published on 6 April 2004 (Official Gazette RS 33/2004). It establishes deadlines for conveying information to the central register of personal doses, as well as obligations and methods to be used in the transmission of information from the central register to the Ministry competent for the environment, to exposed workers and to employers. It also sets out methods to be used for the maintenance of data on radiological procedures and personal doses.

Regime of nuclear installations

Decree on restrictions on the use of land surrounding a nuclear facility and on conditions for construction in such areas (2004)

This Decree was adopted on 1 April 2004 and published on 13 April 2004 (Official Gazette RS 36/2004). It lays down the criteria determining restrictions on the use of land in the vicinity of a nuclear facility and details concerning prohibition or limitation of construction in these areas. For certain types of construction, it shall be necessary to attach an approval from the Slovenian Nuclear Safety Administration to the application for a construction licence.

Decree on compensation due to the limited use of land surrounding a nuclear facility (2003)

This Decree was adopted on 18 December 2003 and published on 30 December 2003 (Official Gazette RS 134/2003). It lays down the criteria determining the amount of compensation which must be paid on a monthly basis to the local community on whose territory a nuclear facility is installed. Such facilities include nuclear power plants in operation, spent fuel storage facilities, radioactive waste repositories and nuclear power plants which are shut-down or being decommissioned where spent nuclear fuel is still stored on site.

Spain

Radioactive waste management

Decree on activities performed by ENRESA and their financing (2003)

On 31 October 2003, Royal Decree No. 1349/2003 on the governance of activities performed by the *Empresa Nacional de Residuos Radiactivos, SA* (ENRESA) and their financing was adopted by the government through the competent body of the Ministry of Economy (MINECO).

This Decree revises and upgrades the National Framework for the Performance of Radioactive Waste Management in Spain to take into account changes and developments which have occurred in recent years.

The principle elements of change are as follows:

- a revised mandate for ENRESA, including an upgraded and more comprehensive description of tasks;
- changes to the drawing up and periodicity of the General Radioactive Waste Plan:
    a. Every four years, and at any other time where requested by MINECO, ENRESA will perform a revision of the plan in force including appropriate proposals for technical actions to be undertaken and the corresponding revision of financial estimates.
    b. Before the middle of each year, a report shall be carried out to analyse activities already performed during the fiscal year in comparison to the objectives and budget defined for such period. Also, an updated revision of costs must be provided.
    c. Before 30 November, a technical-economical report shall be carried out to examine the proposed budget for the next fiscal year and its projection over the following three years.
- a revised definition of the fund to finance the General Radioactive Waste Plan and identification of the capital used to establish it;
- within that fund, a distinction is made between activities that are to be financed via the electricity tariff and those to be financed from financial yields;
- modified rules for the financial management of the fund as well as for the functions of the Tracking and Control Committee for transitory investments.

Sweden

Radioactive waste management

Committee for the management of non-nuclear radioactive waste (2002)

A Committee for the Management of Radioactive Waste unrelated to Nuclear Technology (i.e. outside the nuclear fuel cycle) was established in May 2002 by the Swedish government.

The main objective of this Committee is to elaborate proposals for a national system for the management of all types of non-nuclear radioactive waste, taking into account in particular the polluter-pays principle and the responsibility of the producers.

A state-governed funding system already exists to collect funds for the management and final storage of waste generated by nuclear power. The nuclear power sector pays a flat fee per kilowatt-hour. However there is no similar system to secure funding for non-nuclear radioactive waste. If a company goes bankrupt and leaves a legacy of radioactive waste, it might be left to taxpayers to pay for its safe management. This is because the holder of the waste is responsible for its disposal. The costs become manifest at the time of disposal and it is usually the last owner or holder of a radioactive product that has to pay. If that person does not have the necessary money available, such waste might be kept longer than is warranted before disposal or may become orphan waste. In order to avoid this type of scenario, the Committee proposes a funding system in parallel to the system governing nuclear waste. The principle is that the cost of the future management and disposal of the waste will be included in the price of goods using radioactive sources. It should be the responsibility of the producer of goods containing radioactive sources to guarantee the funding for the handling of waste by making advance payments to the state funds.

The Committee divides non-nuclear radioactive waste into three main categories: waste from products, waste from industrial activities and other waste. Waste from products includes household products as well as products used in research, industry, hospitals, etc. As the manufacture or placing on the market of such products requires a licence from the Swedish Radiation Protection Authority pursuant to the Radiation Protection Ordinance as amended in 1999 (see *Nuclear Law Bulletin* No. 63), it is easy to identify the producer. Waste from industrial activities includes technology-enhanced naturally occurring radioactive materials and biofuel ashes from combustion plants. Most of these processes are licensed under the Environmental Code and funding for the management of the radioactive waste emanating from such practices can be settled in the licensing procedure along with specific conditions on the generation and handling of the waste. The last category, other waste, includes waste with no known owner such as orphan sources and radioactive waste discovered in scrap metal. This category is a minor component of waste compared to the two previous groups and the surplus from the funding system may well cover the costs for the management of this waste.

This proposal has been sent to different organisations and stakeholders for review. Their comments will be considered before making a decision on presenting a bill to parliament.

Ukraine

General legislation

Amendment to the Law on the Use of Nuclear Energy and Radiation Safety (2004)

Law No. 1417-IV to Amend the Law on the Use of Nuclear Energy and Radiation Safety (the text of this Law is reproduced in the Supplement to *Bulletin* No. 56; see *Nuclear Law Bulletin* No. 61 for the 1997 Amendment) was adopted by the parliament on 3 February 2004 and entered into force on 27 February 2004. The principal modifications introduced by this Amending Law are as follows:

- the term "radioactive materials" is introduced, and is defined to mean sources of ionising radiation, nuclear materials and radioactive waste;
- suppliers which act as intermediaries and which participate in the conclusion of any contract for the supply of nuclear materials shall be required to retain all documents pertaining to transactions performed by them or on their behalf for at least one year following the expiry of the contract governing such supply. This documentation shall include the names of the contracting parties, the date on which the contract was signed, data on quantity/amount, form and composition of nuclear materials;
- the State Nuclear Regulatory Committee of Ukraine shall not refuse a license for the transport on Ukrainian territory of radioactive waste arising from the reprocessing of nuclear fuel which is returning to its country of origin for storage and final disposal, where a licence was granted for the primary transportation of spent nuclear fuel and where such transport shall be carried out in line with Ukrainian legislation;
- shipment of radioactive waste from Ukraine to foreign countries shall not be allowed if the State Nuclear Regulatory Committee concludes that the countries concerned lack the appropriate technical and other capacity for the safe treatment of such waste;
- the import and export of ionising radiation sources into and from Ukraine shall be permitted pursuant to the consignee's licence for the utilisation of such sources;
- as regards the international transportation of radioactive materials, a shipping agent or final receiver must be a legal entity registered in Ukraine.

United States

Organisation and structure

Establishment of the Office of Legacy Management (2003)

On 15 December 2003, the Department of Energy (DOE) established the Office of Legacy Management which is responsible for the long term care of legacy liability of former nuclear weapons productions sites following completion of the environmental management cleanup effort. The Office will have responsibility for sites that are closed and no longer support ongoing national security, energy and science missions. Legacy liabilities stem from activities of the DOE and predecessor agencies, particularly during World War II and the Cold War which left a legacy of radioactive chemical waste, environmental contamination, and hazardous materials at over 100 sites in the country. The Office's primary functions will include: management of the land and associated

resources as a federal trustee, surveillance and maintenance associated with environmental remedies, records and information management and the management of port-closure liabilities.

The sites transferring to authority of the Office of Legacy Management will include:

- the Office of Environmental Management closures sites (Pinellas Plant, Weldon Spring Site);
- Uranium Mills Tailings Radiation Control Act sites; and
- Formerly Utilized Sites Remedial Action Program (FUSRAP) sites where remediation is complete.

As more sites are successfully remediated and closed by Environmental Management, site surveillance and maintenance functions will be transferred to the new Office for long-term management.