NATIONAL LEGISLATIVE AND REGULATORY ACTIVITIES

Argentina

Organisation and Structure

Decree on the Structure of the National Atomic Energy Commission (2002)

Decree No. 1450/2002, which entered into force on 23 August 2002, modified the internal structure of the National Atomic Energy Commission (*Comisión Nacional de Energía Atómica* – CNEA). Pursuant to this Decree, the CNEA, a decentralised body under the authority of the General Secretary of the Presidency, is composed of six main directorates established according to geographical criteria (Bariloche Atomic Centre, Constituyentes Atomic Centre, Ezeiza Atomic Centre) and material criteria (Technology and the Environment, Development of Economic Resources and Administration and Finance) and whose objectives are set out in this Decree.

Regime of Nuclear Installations / Regime of Radioactive Materials

Resolution of the Nuclear Regulatory Authority on Penalties for Offences in Respect of Class II and III Installations, Non-routine Practices and the Transport of Radioactive Substances (2002)

Resolution No. 32/2002 of the Nuclear Regulatory Authority (*Autoridad Regulatoria Nuclear* – ARN), which entered into force in August 2002, replaces the regime governing penalties for breach of the radiological safety rules relating to the use of nuclear energy in the fields of medicine, agriculture, industry, research and education, established by Decree No. 255/1996 as amended in 1998.

This Resolution sets out a new regime governing financial penalties applicable to physical persons or legal entities for infringements of the safety rules that apply to Class II and III installations (i.e. nuclear energy used in the fields of medicine, agriculture, research, transport, industry and education), non-routine practices and transport of radioactive substances.

Pursuant to this Resolution, the ARN has wide powers to maintain radiological safety, including the seizure of radioactive substances, the preventive closure of nuclear installations and any other measure necessary to implement the National Law on Nuclear Activities (see *Nuclear Law Bulletin* No. 59) and the Decree on the National Atomic Energy Commission (see *Nuclear Law Bulletin* No. 62).

Belgium

General Legislation

*The Draft Belgian Act on the Phase-out of Nuclear Energy**

Currently, the Belgian Parliament is examining the draft Act on the Phase-out of Nuclear Energy. This draft was approved by the coalition government, comprised of the liberal, socialist and green parties, on 1 March 2002.

The purpose of this Note is to describe the origins of the draft Belgian Act on the Phase-out of Nuclear Energy and the main principles underlying this proposal. It should be pointed out, however, that at present this is simply a draft Act which is in the process of being adopted before the Belgian Parliament. It is therefore possible that the final text, as approved by Parliament, will differ from the draft approved by the government.

This Note will first address certain attempts to phase out nuclear energy which were made before the adoption by the current government of this draft Act on the Phase-out of Nuclear Energy (Part 1). Then we shall provide an overview of the political declarations of the coalition government on the phase-out of nuclear energy (Part 2). Important with regard to the adoption of the draft Act is the opinion delivered by a Commission of experts; the role of this Commission will be examined in Part 3. Finally, we shall look in more detail at the provisions of the draft Act itself (Part 4).

1. Attempts to phase out nuclear energy before the adoption of the draft Act

It should be pointed out that this is not the first time an attempt has been made to opt out of nuclear energy. Under previous governments, there were at least two other initiatives.

During the Parliamentary discussions on the draft Act on Protection of the Population and the Environment Against the Dangers of Ionising Radiation and providing for the setting up of the Federal Agency for Nuclear Control,[1] an amendment was proposed before the Public Health and Environment Commission. This amendment aimed to insert the following sentence in the section of the Act governing licensing of nuclear installations: “Issue of a licence, whether preliminary or operational, for a new nuclear electricity power plant shall be prohibited”.[2]

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* This Note was kindly provided by Dr. Tom Vanden Borre and by Mr. Jan Michiels. Tom Vanden Borre is Scientific Collaborator to the Insitute for Energy Law and Environmental Law of the Catholic University of Leuven and is also Counsellor to the Belgian Prime Minister. Jan Michiels is Adviser to the General Manager of the Federal Agency for Nuclear Control. This article is written by the authors alone and does not represent the views of the Belgian Prime Minister, the Belgian Government or the Federal Agency for Nuclear Control.

1. These negotiations culminated in the adoption on 15 April 1994 of the Act on Protection of the Population and the Environment Against the Dangers of Ionising Radiation and providing for the setting up of the Federal Agency for Nuclear Control, published in the Official Journal (*Moniteur belge*) of 29 July 1994 (see *Nuclear Law Bulletin* Nos. 53, 54, 59, 61, 64 and 69).

2. Unofficial translation. *Documents Parlementaires*, Senate, 1992-1993, No. 610/2, pp. 46-47.

Also during the discussions on the draft Act on the Organisation of the Electricity Market,[3] the current Secretary for State for Energy and Sustainable Development, Mr. Olivier Deleuze, introduced an amendment[4] proposing to insert the following provision:

> "No further licences shall be issued for the establishment of new nuclear energy installations or for the transformation or renovation of existing nuclear power plants, except to the extent that such work is necessary to ensure the safety of the population or the protection of the environment".[5]

Both of these amendments were rejected.

Under the current government, the Secretary of State for Energy and Sustainable Development first of all wished to confirm the rejection of nuclear energy through the adoption of a Royal Decree, based on Section 4 of the Act of 29 April 1999 on the Organisation of the Electricity Market.[6] However, in its Opinion of 6 September 2001,[7] the Commission for the Regulation of Electricity and

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3. These negotiations culminated in the adoption on 29 April 1999 of the Law on the Organisation of the Electricity Market, published in the Official Journal (*Moniteur belge*) of 11 May 1999.

4. *Documents Parlementaires*, House, 1998-99, No. 1933/2, p. 1.

5. Unofficial translation.

6. Official Journal (*Moniteur belge*) of 11 May 1999. Section 4:

   1. The establishment of new installations for the production of electricity is subject to the prior issue of an individual licence by the Minister upon proposal of the Commission.
      Following the Opinion of the Commission, the King may, subject to any appropriate conditions:
      1) extend the scope of application of the first paragraph to the transformation or renovation of existing installations;
      2) exempt installations of limited power from the licensing procedure and subject them to a procedure providing for prior declaration to the Commission.
   2. Following the Opinion of the Commission, the King shall establish criteria for the issue of licences pursuant to Sub-section 1, paragraph 1. These criteria can focus upon:
      1) the security and safety of electrical networks, installations and related equipment;
      2) the energy efficiency of the proposed installation, in light of Belgium's international obligations particular in relation to environmental protection;
      3) the nature of primary sources;
      4) the reliability and professional experience of the applicant, its technical and financial capacity and the quality of its organisation;
      5) public service obligations in relation to regularity and quality in electricity supply, as well as in the supply of customers which are not eligible customers;
   3. Following the Opinion of the Commission, the King shall establish:
      1) the procedure to issue licences pursuant to Sub-section 1, paragraph 1, in particular the form of the request, the hearing of the application before the commission, time limits within which the Minister is required to make a decision and notify that decision to the applicant, and the fee to be paid to the Commission for its examination of the file;
      2) cases in which the Minister may revise or revoke the licences, and procedures governing this;
      3) effects upon the licence where the installation is transferred or where the licence-holder is subject to change in management, merger or division and, where necessary, conditions to be fulfilled and procedures to be followed in order to maintain or renew the licence in such cases.

7. Opinion No. 010906-CDC-29; this Opinion is available in Dutch and French on the Web site of the Commission (www.creg.be).

Gas (CREG) expressed some doubts as to whether the use of a Royal Decree as opposed to an Act to regulate the phase-out of nuclear energy would constitute an appropriate legal basis.

2. Political declarations of the coalition government on the phase-out of nuclear energy

The decision taken by the Belgian Government on the draft Act on the Phase-out of Nuclear Energy is based on the declaration of the coalition government of Mr. Guy Verhofstadt and on the governmental agreement of 7 July 1999.[8] This Agreement contains the main guidelines on the energy policy of the current government:

> "The Government eventually wishes to withdraw from the nuclear energy sector, respecting the objectives put forward by the Rio Conference and the Kyoto Protocol on CO_2 emissions. In order to give scientists enough time to design new alternative, renewable and pure energy sources on a large scale, Belgium will support a scenario for starting to deactivate nuclear power stations as soon as they are 40 years old. For this purpose, the Government will consult the European Environmental Agency, and question the commission of internationally recognised experts about the feasibility and execution of this scenario."

The determination of the current government to progressively abandon nuclear energy was confirmed in the Federal Plan on Sustainable Development, approved by the Council of Ministers on 20 July 2000 and confirmed in a Royal Decree of 19 September 2000 pursuant to the Act of 5 May 1997 on the Co-ordination of Federal Policy on Sustainable Development:

> "The third objective is to withdraw from nuclear energy. This involves in particular organising a strategy for Belgium pursuant to which nuclear power plants will be deactivated as soon as they reach 40 years of age and also providing for a moratorium on reprocessing. As this strategy is regularly contested in the debate on the relationship between nuclear policy and climate policy, the Government shall draft a Note justifying this choice. This Note shall examine the planetary impact of the generalisation of the use of nuclear energy, ideas on the use of nuclear energy in the long term, the incorporation of the dismantling of power plants into a policy for the reduction of CO_2 and changes in modes of energy consumption, and scientific uncertainties in relation to nuclear energy. This Note will be made public in mid-2001. All of the information available, such as the results of the AMPERE Commission, is part of this debate."[9]

The desire of the government to phase-out the industrial production of nuclear electrical energy was confirmed in the declaration of federal policy of 9 October 2001, pursuant to which a draft Act on the deactivation of nuclear power plants after 40 years should be introduced in the months to come.

Finally, in the "Note on Economic and Social Priorities 2002-2003", approved by the Council of Ministers on 18 January 2002, "the submission of the draft Act on the Phase-out of Nuclear Energy" is cited as a priority.

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8. "The Way to the 21st Century – Government Agreement" of 7 July 1999; available in Dutch and French at www.belgium.fgov.be, click under "*politique*"; available in English at www.premier.fgov.be, click "policy".

9. Unofficial translation.

3. The role of the AMPERE Commission

During the adoption of the draft Act, the Belgian government consulted a commission of experts. The AMPERE (Analysis of the Means of Production of Electricity and the Restructuring of the Electricity Sector) Commission was established under the previous legislature.[10]

Following the governmental agreement of 7 July 1999, a Royal Decree was adopted on 25 November 1999 completing the terms of reference of the AMPERE Commission[11] to allow it to examine the feasibility and the implementation of the scenario according to which the deactivating of nuclear power plants would commence once they reached 40 years of age. The current government has maintained for the most part the composition and mission of this Commission.

This mission focused on the examination of the following issues:

(a) the general economic and energy context: description of the international context and the current tendencies on the primary energy source markets, evaluation of the general context and identification of developments expected for Belgium;

(b) the electricity demand in Belgium: evaluation of the current demand, evolution of this demand in the medium and long-term taking into account in particular best international practices in terms of demand-side management;

(c) electricity production technologies: study of technologies currently used in the country, examination of alternative or developing technologies which have potential for the production of electricity; analysis of their social, economic and environmental implications, particularly in relation to radioactive waste management (evaluation of costs for the management of radioactive waste and the dismantling of nuclear power plants and other installations of the nuclear fuel cycle), greenhouse gas emissions and other atmospheric pollutants.

The final report of the Commission was published in October 2000. In this report, the Commission formulated recommendations and proposals aiming to identify, on the basis of the current situation in Belgium, choices for the future production of electricity:

> "To ensure the operational safety of the electronuclear sector, public safety and health, the Commission considers that it is necessary to maintain a scientific and technological potential which will allow electricity producers to ensure that their production takes place in the most efficient manner possible and under optimum safety conditions.
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> This implies that research and development activities be continued in the nuclear field, within reasonable budgetary limits. It further requires training programmes which can maintain, now and in the future, the necessary level of skills of personnel in the electronuclear sector, whether in the private sector (operators in the electronuclear cycle: the back end of the nuclear fuel cycle, production of nuclear energy, treatment of irradiated fuel and disposal of fuel) or the public sector (agencies for the management of the back-end of the nuclear fuel cycle and the

10. Royal Decree of 19 April 1999 establishing a Commission for the Analysis of the Means of Production of Electricity and the Restructuring of the Electricity Sector, published in the Official Journal (*Moniteur belge*) of 29 January 2000.

11. Official Journal (*Moniteur belge*) of 29 January 2000.

control of the nuclear sector). This also implies that the State, which is the guardian of public safety, continues to have research bodies and supervising institutions which are competent and independent from the economic sector at its disposal.

Furthermore, the Commission is of the opinion that the electronuclear option should be maintained open for the future in the event of an increase in the price of hydrocarbons (including natural gas) and in light of the absence of greenhouse gas releases from nuclear energy. To do this, it is necessary to maintain national expertise, private and public, in the electronuclear sector, and also to participate in research and development, mostly of a private nature, into future branches.

Maintaining the electronuclear option open does not imply any obligation whatsoever to return to such branches. This choice in a democratic society is that of Parliament alone. It is explained by the fact that future technical developments in the electronuclear sector should be appreciated on their merits in several fields, including operational safety, the limitation of the contamination area in the event of an accident, the management of the back-end of the nuclear cycle and in particular the conditioning and management of waste, and the technical cost of production.

All of the efforts necessary to keep the nuclear option open should not be confined to the Belgian context: national initiatives would benefit substantially from international co-operation (in particular at European level) mobilising complementary experience obtained in different fields such as the development of new electronuclear techniques or the disposal of nuclear waste. This last point would certainly benefit from an examination at European, or even international level."[12]

In application of the governmental agreement, the government requested five international experts to carry out an evaluation of the AMPERE report. The report of this International Peer Review Group was issued in April 1999 and deemed the AMPERE report to be an accurate one.

4. The draft Act on the Phase-out of Nuclear Energy for the Industrial Production of Electricity

In this Part, further details shall be provided on the procedure for adoption of the draft Act (4.1), on the concerns of the government in adopting this draft (4.2) and on the content of the draft Act itself (4.3).

4.1 Governmental decisions and procedure

The first draft of the Act "on the Phase-out of Nuclear Energy for the Industrial Production of Electricity" was approved by the Council of Ministers on 1 March 2002.

The Council of State provided its opinion on 6 June 2000. This Opinion was essentially composed of technical and drafting remarks. The government slightly modified the text of the first draft of the Act and then the Council of Ministers approved the draft on 28 June at second reading.

12. Unofficial translation.

The draft Act was submitted to the House of Representatives on 8 July 2002. The text of the draft Act, as submitted to Parliament, is available in Dutch and French on the Internet.[13]

Although the Government had requested the Parliament to treat this file as a matter of urgency, the Economics Commission of the Chamber, entrusted with the task of examining the draft Act, decided to organise a number of hearings. In the meantime, this Commission also invited and heard certain specialists and the social organisations. On 12 November 2002, some minor amendments to the text were accepted in the Commission. On 19 November 2002, the Economics Commission voted and approved this draft text.

Following this vote of the Commission, there will be a vote in plenary session of the House of Representatives on this text. Following this, it is possible that the Senate may use its right of evocation which would mean that the Senate would also vote on this draft Act. If the Senate uses its right, it cannot be excluded that additional amendments to the text will be voted. In any event, the text must be returned to the House of Representatives. According to Belgian law, an identical text needs to be approved by both the House and the Senate. As soon as the Parliament has approved the text, it is ready to be approved and promulgated by the King. Finally, the Act will be published in the Official Journal (*Moniteur belge*).

4.2 Governmental concerns

In adopting the draft Act, the government expressed concerns on the potential consequences of the phase-out of nuclear energy in relation to the security of electricity supply, international commitments on climate change and the desire to maintain nuclear expertise.

The government is relying upon the development of alternatives which would allow the replacement of nuclear production, such as a reduction in demand due to more rational uses of energy, as well as the establishment of replacement production capacities using renewable energy sources, cogeneration installations and natural gas stations.

In order to implement these alternatives, the government also requires the collaboration of energy producers (to substitute non-nuclear capacity), the management of the cable network (to develop exchange capacity) and the regions (which are competent in respect of the rational use of energy, environmental licensing requirements, policy in respect of CO_2 etc.). These bodies may not then invoke the case of *force majeure*. The Commission for the Regulation of Electricity and Gas (CREG) is responsible for monitoring this situation closely.

The Explanatory Memorandum devotes an extensive chapter to the interface between the phase-out of nuclear energy and climate policy. With regard to the Kyoto Protocol, Belgium has committed itself to reduce its annual greenhouse gas emissions, including CO_2, by 7.5% during the period 2008-2012, as compared to the reference year 1990.

The government also wishes to avoid a situation whereby the phase-out of nuclear energy would have negative repercussions on the nuclear research and nuclear safety fields.

13. Draft Law on the Phase-out of the Nuclear Energy for the Industrial Production of Electricity, *Documents Parlementaires*, Session 2001-2002, 1910/001, www.lachambre.be.

4.3 The content of the draft Act

First, it should be pointed out that the draft Act does not intend to ban all forms of energy production which result from the fission of nuclear fuel, but simply those designed for the industrial production of energy. In fact, the two key sections of the draft Act (Sections 3 and 4) only apply to "nuclear power plants designed for the industrial production of electricity resulting from the fission of nuclear fuel".

Pursuant to the phase-out scenario envisaged under the current draft Act, the oldest nuclear power plant (i.e. Doel 1) would be deactivated starting in 2015. The other plants would then follow according to the date upon which they entered into service, so that in 2025 no nuclear power plants will be in operation in Belgium. It is therefore, as the title of the Act suggests, a "phase-out" of nuclear in the industrial production of energy.

The structure of the draft Act is very simple and only contains nine sections out of which Sections 3 and 4 form the basis of the text. Section 9 concerns *force majeure*; the other sections are of a rather technical nature as they modify the provisions of two existing Acts in order to streamline them with the basic principles of this draft Act.

Two closely related principles are established in the second chapter of the draft Act:

- Section 3 states that no new nuclear power plant for the industrial production of energy resulting from the fission of nuclear fuel may be established or operated;

- Section 4 states that existing nuclear power plants should be deactivated and may no longer produce industrial electricity 40 years after their entry into service. In practice, this provision refers to the four nuclear power plants at Doel and the three plants at Tihange.

In order to avoid any discussion on the date of entry into industrial service, Section 2(1) defines this as "the date of the formal agreement between the electricity producer, the constructor and the engineering department according to which the "project" stage is finalised and the production stage commences". These dates are then set out for each of the seven NPPs concerned. Therefore the first NPP is scheduled to close on 14 February 2015 and the last would close on 31 August 2025.

In this context, it should be emphasised that the draft Act provides that all individual operating licences for the industrial production of electricity, granted in the past for an unlimited period, will expire 40 years after the date of entry into industrial service of the installation concerned.

Section 9 of the draft empowers the King to postpone the planned closure of NPPs in the case of *force majeure* and, if necessary, to authorise the construction of new NPPs (by royal decree examined in the Council of Ministers). Only a threat to supply security could be invoked, which would imply an unforeseen reason. The Explanatory Memorandum provides that operators of NPPs cannot use this *force majeure* clause, although this restriction is not expressly set out in the text of the law.

With a view to closely following the situation *vis-à-vis* supply security, the Commission for the Regulation of Electricity and Gas (CREG) was invested with further missions (commencing in 2015, the indicative plan for the electricity sector will be prepared every year rather than every three years).

Applying these guidelines, the draft Act contains articles which aim to amend the Act of 15 April 1994 on Protection of the Population and the Environment Against the Dangers of Ionising

Radiation and providing for the setting up of the Federal Agency for Nuclear Control and the Act of 29 April 1999 on the Organisation of the Electricity Market.

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Radiation Protection

Royal Order on the Protection of Workers Against the Hazards of Ionising Radiation (2002)

This Royal Order of 2 April 2002 entered into force on 20 June 2002. It amends the Royal Order of the same title of 25 April 1997 (see *Nuclear Law Bulletin* No. 60) in order to harmonise the Belgian legislation with the provisions of Council Directive 90/641/Euratom of 4 December 1990 on the operational protection of outside workers exposed to the risk of ionising radiation during their activities in controlled areas (see *Nuclear Law Bulletin* No. 47).

Pursuant to this Royal Order, a radiological passport is established for each outside worker operating in controlled areas. Outside workers are subject to an evaluation of their exposure and to medical surveillance, details of which are recorded in the radiological passport. The dosimetric data of each worker is considered to be personal medical information and is protected.

The Royal Order specifies the tasks of the Industrial Health and Medicine Department and the physical protection services of nuclear operators.

Food Irradiation

Royal Order on the Treatment of Food and Food Ingredients by Ionising Radiation (2002)

This Royal Order of 12 March 2002, which entered into force on 14 March 2002, amends the Royal Order of 20 July 2001 establishing General Regulations for the Protection of the Population, Workers and the Environment against the Dangers of Ionising Radiation (see *Nuclear Law Bulletin* No. 69). It repeals the Order of 16 July 1980 regulating the treatment by ionising radiation of food for human and animal consumption (see *Nuclear Law Bulletin* No. 28). The Royal Order aims furthermore 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 (see *Nuclear Law Bulletin* No. 67), Directive 1999/3/EC of the European Parliament and of the Council of 22 February 1999 on the establishment of a Community list of foods and food ingredients treated with ionising radiation and Directive 2000/13/EC of the European Parliament and of the Council of 20 March 2000 on the approximation of the laws of the Member States relating to the labelling, presentation and advertising of foodstuffs.

The Royal Order establishes the legal framework governing the treatment of foodstuffs by ionising radiation. It refers to the list of foodstuffs whose treatment by ionising radiation is permitted, which is reproduced in above-mentioned Directive 1999/3/EC. Requests to treat foodstuffs not included on this list by ionising radiation are submitted to the Higher Council for Health.

Operators of irradiation facilities are required to participate in dosimetric controls and they must maintain a register for each batch of foodstuffs treated.

The import and export of foodstuffs treated by ionising radiation are regulated by the Order. Their import is permitted where the irradiation has taken place at an authorised installation pursuant to the list published in the Official Journal of the European Communities. Where this is not the case, import is subject to a licence granted by the Federal Agency for Nuclear Control.

Bulgaria

General Legislation

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

The Act on the Safe Use of Nuclear Energy for Peaceful Purposes (Atomic Energy Act), adopted on 28 June 2002, governs all nuclear activities in Bulgaria. This legislation, which repeals and replaces the 1985 Act on the Use of Atomic Energy for Peaceful Purposes as amended,[14] establishes principles governing safety in the use of nuclear energy and ionising radiation, radioactive waste and spent fuel management and the rights and obligations of persons who perform activities pursuant to this Act.

Bulgaria has chosen to regulate legal matters in the field of nuclear energy by centralising them in one single piece of legislation rather than several laws on separate matters, which guarantees to a greater extent the effectiveness of this legislation. There are two basic principles governing the safe use of nuclear energy: nuclear safety has priority over all other aspects of this activity and the exposure of the workers and the public to ionising radiation must be kept at the lowest reasonably achievable level (Article 3).

State regulation is carried out by the President of the newly-established Nuclear Regulatory Agency (NRA), which takes over the rights, obligations, assets and liabilities of the Committee for the Use of Atomic Energy for Peaceful Purposes (CUAEPP).[15] The NRA President is an independent specialised state authority whose competence is established by this Act. He/she is designated for a period of five years by a decision of the Council of Ministers and appointed by the Prime Minister. The President has extensive authority to represent the NRA in relation to the issue, modification, extension, renewal, suspension and revocation of licences and authorisations to perform activities pursuant to the Act. He/she is also responsible for the organisation and co-ordination of the implementation of Bulgaria's obligations ensuing from the Agreement between the People's Republic of Bulgaria and the International Atomic Energy Agency for the Application of Safeguards in connection with the Treaty on the Non-Proliferation of Nuclear Weapons as well as on the Additional Protocol to that Treaty.

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* This note was kindly provided by Mr. Georgi Karadzhov, Acting Head of the Legal Division of the Bulgarian Nuclear Regulatory Agency, formerly the Committee on the Use of Atomic Energy for Peaceful Purposes.

14. The text of this Act, as amended in 1995, was reproduced in the Supplement to *Nuclear Law Bulletin* No. 58.

15. The CUAEPP was transformed into the NRA pursuant to a Decree of the Council of Ministers of 22 August 2002, as scheduled under the new Atomic Energy Act.

To carry out those activities, the President is assisted by an administration, which is organised within the NRA. The NRA is a financially independent legal entity based in Sofia. On 10 September 2002, a Code of Regulation of the NRA was adopted by the Council of Ministers, providing the President with wider budgetary powers. The NRA therefore has a greater level of autonomy in financial matters. The Agency's activities are funded by the state budget and by revenue from taxes collected as well as by donations. The Act establishes priorities with regard to expenditure in the Agency's budget – funding of research, analyses and expertise is to take first place.

The activities covered by this Act are performed by physical or legal entities based on licences and authorisations issued by the NRA President. For the first time in Bulgarian legislation, licences are issued as individual administrative acts necessary to commence any activities regulated by the Act.

This licensing regime liberalises the sector for foreign or Bulgarian investors. Long-term licences can be issued – up to ten years for the most important activities. Once obtained, the licence can be revoked on very few occasions in accordance with the Act. The President exercises control over the activities covered by the licence. In this way, the need to obtain successive authorisations is dispensed with. The operation of a nuclear facility is subject to delivery of a licence. Where the activity is for a shorter period of time and is of less importance, authorisations are issued. The time necessary to issue a licence is on average nine months and for an authorisation, one month.

In accordance with Article 24 of the Act, the granting, modification and refusal of licences and authorisations, including tacit refusal, are subject to appeal before the Supreme Administrative Court.

Article 25 deals with the transitional transport of nuclear material, radioactive waste and spent nuclear fuel. This can be done upon delivery of an authorisation from the President of the NRA.

The licence to operate a nuclear facility is issued to a legal entity, registered in the Republic of Bulgaria, which is the owner or holder of property rights over the nuclear facility and possesses the necessary financial, technical, material and human resources. The certificates demonstrating legal capacity are to be issued by the President or a person holding a licence pursuant to the provisions of this Act.

Of particular importance is Article 6 on special rules for the operation of nuclear power plants. A nuclear power plant may be constructed following a decision by the Council of Ministers upon a proposal submitted by the Minister of Energy and Energy Resources with an assessment of the nuclear safety and radiation protection situation, the environmental impact and the physical protection, social and economic significance of the construction, and the management of radioactive waste and spent nuclear fuel generated as a result of the nuclear power plant's activity. It is necessary to obtain two licences – one for the generation of electricity and/or heat in accordance with the Act on Energy and Energy Efficiency and the other pursuant to this Act. The issuing of authorisations and licences pursuant to this Act shall be a precondition for entry into force of the authorisations and licences issued pursuant to the Act on Energy and Energy Efficiency.

An important part of the Act deals with two funds – the Decommissioning of Nuclear Facilities Fund and the Radioactive Waste Fund. They are established within the Ministry of Energy and Energy Resources. The revenue of these Funds shall be generated through payments by persons operating a nuclear power plant or as a result of whose activity radioactive waste is generated, resources from the state budget, interest, donations and other contributions. The amount of the payments shall be determined by regulations of the Council of Ministers on the basis of a joint proposal by the Minister of Energy and Energy Resources and the Minister of Finance. The Funds are to be managed by

Steering Committees comprising nine members including the Minister of Energy and Energy Resources as President.

Of particular importance also is Article 73 which states that nuclear material, sources of ionising radiation or radioactive waste whose owner is not known shall become the property of the State and the President shall nominate the person to whom they will be consigned. In accordance with Article 73(3), nuclear material which is acquired in violation of the provisions of the Act shall be confiscated by an order of the President.

The provisions on the accounting and control of nuclear material, radioactive substances and other sources of ionising radiation govern the obligations of persons who manufacture, process, store or use such material, substances or sources.

The Act establishes an Enterprise for Radioactive Waste which shall perform its activities in accordance with the authorisations for the siting, design, construction and commissioning, and on the basis of a licence to operate a radioactive waste management facility, issued by the President. Licences and authorisations may be issued to holders of licences and authorisations for the operation of nuclear facilities.

The regulatory control over the use of nuclear energy and ionising radiation and of the management of radioactive waste and spent fuel is the responsibility of the President, who is authorised to take preventive, current and follow-up control. The President can authorise certain officials called inspectors to exercise control under this Act. They are required to prepare a protocol of findings containing the results from the inspections, which shall then be submitted to the licence-holder who is entitled to provide explanations and objections within a one–week period. Based on the results, inspectors can issue mandatory instructions, report acts of administrative violations or propose to the President to implement coercive administrative measures.

Chapter 6 defines the areas with special status – the radiation protection area and the controlled area. The former is established with a view to minimising the exposure of the public during an accident, the latter is the territory outside the limits of the radiation protection area where control for the purposes of radiation protection is carried out. The radiation protection area is established by an order of the Minister of Regional Development and Public Works co-ordinated with the NRA President and the controlled area is established by an order of the NRA President.

Chapter 7 on physical protection is based on the 1979 Convention on the Physical Protection of Nuclear Material.[16] The NRA President acts as central authority and contact point responsible for the physical protection of nuclear material pursuant to Article 5(1) of the Convention.

Chapter 8 on emergency planning and emergency preparedness establishes both the off-site and on-site emergency plan. The off-site emergency plan determines the areas for emergency planning and delineates the actions of the competent authorities for protection of the public, health, property and the environment in the event of an accident and the on-site emergency plan determines the actions of the licensee to minimise the scope of the accident and eliminate its consequences in accordance with the off-site emergency plan. The conditions governing the development of emergency plans are established by a regulation by the Council of Ministers upon a proposal of the specialised state authority on civil protection and the NRA President.

16. The text of this Convention is reproduced in the Supplement to *Nuclear Law Bulletin* No. 24.

The NRA President is a co-ordinator for the implementation of the obligations of the Republic of Bulgaria ensuing from the 1968 Treaty on the Non-Proliferation of Nuclear Weapons (see *Nuclear Law Bulletin* Nos. 5, 36, 55 & 56), and the Agreement between the People's Republic of Bulgaria and the International Atomic Energy Agency for application of Safeguards in connection with the Treaty on the Non-Proliferation of Nuclear Weapons and the Additional Protocol.

Chapter 10 regulates civil liability for nuclear damage. The most important Article is 132(1) which provides that the liability of the nuclear operator is limited to USD 48 million (USD).

The Chapter on administrative penal provisions establishes administrative sanctions varying from 500 to 150 000 levs.[17] Fines are charged for physical persons and property sanctions are imposed upon legal entities. New and important sanctions include limitation or termination of the activity or temporary revocation of the certificate demonstrating legal capacity. They are imposed by an order of the President and may be appealed before the Supreme Administrative Court.

The most important transitional and final provisions are Section 4 governing procedures on issuing authorisations and certificates of capacity initiated pursuant to the former Act on the Use of Atomic Energy for Peaceful Purposes. These procedures shall be completed according to the former legislation and Section 19, item 2, which provides that "Prior to issuing the implementing legislation and regulations envisaged by this Act, the legislation and regulations issued for the implementation of the Act on the Use of Atomic Energy for Peaceful Purposes shall remain in force to the extent that they are not in contradiction with the new Act".

To conclude this brief overview on the new legislation, it appears that in comparison with the previous Act, the NRA President has much larger powers. He/she becomes the most important authority in Bulgaria in the field of the safe use of nuclear energy. The independence of the Bulgarian regulatory authority is strengthened with the attribution of budgetary autonomy to its President and through the increase of its personnel from 80 to 102 people by the Council of Ministers. The implementation of the new licensing regime will facilitate foreign and national investment in the fields of nuclear safety and radiation protection. The provisions governing physical protection, applications of safeguards and civil liability for nuclear damage are more precise and up-to-date. The liberalisation of the regime will allow private persons to work in this sector. It should be emphasised that this Act simply regulates the most important framework issues and therefore we now need to prepare numerous implementing ordinances. Upon completion of this exercise, this new legislative framework should strengthen Bulgaria's position in the negotiations with the European Commission on accession to the European Union.

The text of this new legislation will be published in the Supplement to the next edition of the *Nuclear Law Bulletin*.

17. This corresponds to a range between USD 258 and USD 77 546.

Canada

Radioactive Waste Management

Nuclear Fuel Waste Act (2002)

The Nuclear Fuel Waste Act (Statutes of Canada 2002, Chapter 23) was enacted on 13 June 2002 and entered into force on 15 November 2002. The Act provides a framework for the long-term management of nuclear fuel waste in Canada by putting the onus on the owners of the waste to study approaches to managing the waste, to recommend an approach to the Government of Canada and to finance the long-term management of the waste.

The Act requires nuclear energy corporations to establish a non-profit waste management organisation (WMO) which must propose to the Government of Canada, within three years of the coming into force of the Act, approaches for the management of nuclear fuel waste and must implement the approach that is selected by the Government. Each of the following methods must be the sole basis of at least one approach studied by and reported to the government by the WMO:

- deep geological disposal in the Canadian Shield;
- storage at nuclear reactor sites; and
- centralised storage, either above or below ground.

The Act provides that the WMO must consult with the general public, and in particular aboriginal peoples, on each of the proposed approaches for the management of the waste.

In relation to requirements under the Act, the new legislation assigns responsibility for oversight of the WMO, the nuclear utilities and Atomic Energy Canada Limited (AECL) to the Government of Canada. This oversight responsibility will reside within Natural Resources Canada.

Under the provisions of the Act, nuclear energy corporations and AECL must finance the long-term management of nuclear fuel waste by establishing trust funds. The amounts that they must contribute to the trust funds are specified in the Act. These amounts vary for each entity. The funds may only be used by the WMO to implement the approach selected by the Government and the first withdrawal of funds may only be made for an activity in respect of which a construction or operating licence has been issued under the Nuclear Safety and Control Act (the text of this Act is reproduced in the Supplement to *Nuclear Law Bulletin* No. 60) after the Government has made a decision on the approach. Once the approach is implemented, the WMO is required to offer its waste management services at a reasonable cost to AECL and all owners of nuclear fuel waste produced in Canada.

The WMO must report to the Government of Canada annually on its activities. The study, reports and financial statements that the WMO is required to submit to the Minister of Natural Resources must be made available to the public.

The Act sets out offences and punishments if a nuclear energy corporation, AECL or the WMO fail to comply with it.

The text of this legislation is available in English at: www.parl.gc.ca/37/1/parlbus/chambus/house/bills/ government/C-27/C-27_4/C-27_cover-E.html

France

Organisation and Structure

Order Establishing an Advisory Council on the Use of Nuclear in Defence Operations (2002)

An Order of 13 March 2002 establishes an Advisory Council on the Use of Nuclear in Defence-Related Nuclear Activities (*Conseil de l'exploitation nucléaire pour les activitiés nucléaires intéressant la défense* – CEND) within the Ministry of Defence. The objective of the CEND is to examine the coherence of the operations of the Defence Minister with regard to nuclear safety requirements and operational, industrial or financial obligations. It also provides opinions and recommendations on such operations.

Pursuant to this Order, the CEND shall examine:

- nuclear policy questions submitted to the Minister for decision;
- application of defence-related nuclear security policy and evaluation of its results;
- consequences of any developments in the basic principles of nuclear safety on the operational use of the armed forces;
- whether the mechanisms of the Defence Minister fulfil nuclear security requirements.

The CEND is headed by the Armies General Staff.

Decree on the Inspectorate for Nuclear Weapons (2002)

Decree No. 2002-702 on the Inspectorate for Nuclear Weapons was adopted on 29 April 2002 replacing the Decree of 22 January 1970 establishing this Inspectorate. It describes the organisation and specifies the objectives of this Inspectorate, which is headed by a nuclear weapons inspector and is placed directly under the authority of the President of the Republic.

The Inspectorate is responsible for controlling the application of measures which ensure governmental control over nuclear weapons in respect of:

- the triggering at any moment of nuclear forces by the Head of State;
- the guarantee that nuclear weapons will not be used except under official governmental instructions.

The mechanisms at the disposal of the inspector for this purpose are established by an order of the Minister for Defence, upon the agreement of the Minister responsible for Industry in relation to any resources coming from the Atomic Energy Commission.

Decree on the Organisation and Operation of the French Agency for Environmental Health Safety (2002)

Decree No. 2002-299 of 1 March 2002 sets out the *modus operandi* of the French Agency for Environmental Health Safety (*Agence française de sécurité sanitaire et environnementale* – AFSSE), established by Act No. 2001-398 of 9 May 2001 (see *Nuclear Law Bulletin* No. 68), and amends the Public Health Code.

The French Agency for Environmental Health Safety aims to ensure health safety and evaluate health risks related to the environment and to provide the government with the expertise and scientific and technical support necessary for the drafting and implementation of legislative and regulatory provisions.

The AFSSE is a public administrative body. It comprises a Board of Management of 24 members, nominated for three years by a joint order of the Minister responsible for Health and the Minister responsible for the Environment. At the head of the Board of Management is a Chairperson, assisted by a Vice-Chairperson, both of whom are also nominated for three years.

The AFSSE also has a Director General nominated for a period of three years and a Scientific Council which defines national policy in relation to research on environmental health safety.

Radiation Protection

Decree on the General Protection of Persons Against Ionising Radiation (2002)

Decree No. 2002-460, adopted on 4 April 2002, repeals Decree No. 66-450 of 20 June 1966 on the General Principles of Protection against Ionising Radiation (see *Nuclear Law Bulletin* No. 1) and Decree No. 82-203 of 26 February 1982 on Measurement Units and Control of Measuring Instruments. It redefines the basic principles in relation to health protection of the public and workers in order to implement Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation (see *Nuclear Law Bulletin* Nos. 58 and 61).

This Decree re-drafts Chapter V-1 of Book 1, Title 1 and repeals Chapter II of Book V, Title III of the Public Health Code. It also takes into account the reform of the control and expert bodies in the nuclear field with the establishment, on 22 February 2002, of the Institute for Radiation Protection and Nuclear Safety (*Institut de radioprotection et de sûreté nucléaire* – IRSN) and the General Directorate for Nuclear Safety and Radiation Protection (*Direction générale de la sûreté nucléaire et de la radioprotection* – DGSNR) (see *Nuclear Law Bulletin* Nos. 68 and 69).

With regard to the general measures for the protection of the public against ionising radiation, the Decree confirms the reduction in annual effective dose for members of the public to 1 mSv per annum, as established by Decree No. 2001-215 of 8 March 2001.

A national network of environmental radioactivity measurements is established. It is to be managed by the IRSN which is also responsible for the national inventory of sources of ionising radiation. This network brings together the different results from environmental analysis prescribed by regulations, and tests carried out by the different services of the State and public bodies, territorial communities and associations. These results are available to the public.

The Decree extends the prohibitory regime concerning the intentional addition of radioactive substances into consumer goods, and establishes the principle of prior authorisation for any planned release of liquid or gaseous waste and waste contaminated by radio-nuclides resulting from nuclear activities, with the exception of installations subject to a particular regulatory regime. Waste and effluent produced by medical establishments are included.

The provisions relating to exposure to naturally-occurring ionising radiation are extended to all professional activities using materials which naturally contain radio-nuclides which are not used for their radioactive properties but which may cause exposure that could damage the health of workers and the public. Monitoring activities in relation to exposure to radon shall be stepped up in public buildings.

Furthermore, the Decree provides for a reform of the general regime governing licensing and declarations in respect of medical and research applications previously covered by Article L. 1333-4 of the Public Health Code. The manufacture, possession, distribution (including import and export) and use of radio-nuclides or of products or apparatus containing radio-nuclides, and the use of x-ray apparatus are all covered. The regime established by this Decree repeals and replaces the regime established under the Interministerial Commission on Artificial Radioisotopes (*Commission interministérielle des radioéléments artificiels* – CIREA) (see *Nuclear Law Bulletin* No. 23).

This new regime also removes the CEA's derogations from permanent licensing requirements for the preparation, import or export of artificial radioisotopes. Finally, pursuant to Article L. 1333-4 of the Public Health Code, licences relating to industries governed by the Mining Code, major nuclear installations, major nuclear installations classified as secret and installations classified for environmental protection purposes, dispense with licensing requirements under radiation protection provisions.

Regime of Nuclear Installations

Order on Information of the Public (2002)

An Order was adopted on 21 February 2002 in implementation of Decree No. 2001-470 on Information of the Public (see *Nuclear Law Bulletin* No. 69) and modifies Decree No. 88-622 on Emergency Plans.

Pursuant to this Order, the operators of installations or sites which are subject to an off-site emergency response plan (*plan particulier d'intervention* – PPI) or a specialised emergency plan are required to establish information documents for the public residing within the zone to which the plan applies.

The Order provides details on the information which must be contained in such documents and provides for a deadline of three months after the entry into operation of new installations within which these documents must be established. The deadline is extended to two years (before 27 February 2004) for existing installations whose mechanisms for dissemination of information do not comply with the provisions of this Order.

Food Irradiation

Order on the Authorisation for and Control and Verification of Installations for the Treatment of Foodstuffs by Ionising Radiation (2002)

An Order was adopted on 8 January 2002 in implementation of Decree No. 2001-1097 on Treatment by Ionising Radiation of Foodstuffs Destined for Human or Animal Consumption (see *Nuclear Law Bulletin* No. 69). The Order sets out the procedures governing the authorisation of establishments which treat foodstuffs or other products or drinks for human consumption by ionising radiation. The authorisation involves attribution of an identification number to installations. It also imposes control measures and dosimetric verifications of installations for the treatment of such foodstuffs by ionising radiation.

Germany

Radiation Protection

Amendment of the X-Ray Ordinance and Other Atomic Ordinances (2002)

On 18 June 2002, the Federal Government issued an Ordinance to Amend the Ordinance on X-Rays and Other Atomic Ordinances (*Bundesgesetzblatt* 2002 I, p. 1869) which, in accordance with its Section 6, entered into force on 1 July 2002.

Section 1 of the Ordinance amends the X-Ray Ordinance of 1987 as amended (see *Nuclear Law Bulletin* Nos. 39, 47, 59 and 68). The amendment aims to implement Council Directives 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation (see *Nuclear Law Bulletin* No. 58) and 97/43/Euratom of 30 June 1997 on health protection of individuals against the dangers of ionising radiation in relation to medical exposure (see *Nuclear Law Bulletin* No. 60) as far as these Directives apply to the use of x-rays. Another reason to amend the X-Ray Ordinance was the new developments in the field of medicine concerning the use of digital technology which require adaptation of the legal framework, in particular with regard to medical documentation.

The new Ordinance, with a view to protecting the general public against radiation exposure during the use of x-rays, lowers the effective dose limit from 1.5 to 1 millisievert (mSv) per calendar year. The dose limit for persons professionally exposed to radiation was also reduced from 50 to 20 mSv.

In order to reduce the risk of radiation exposure, medical doctors, dentists, veterinarians and other persons who use x-rays are required to update their technical knowledge every five years through certification.

The Ordinance furthermore amends the following Ordinances:

- Radiation Protection Ordinance of 20 July 2001 (see *Nuclear Law Bulletin* No. 68);
- Ordinance on Advanced Financial Contributions towards Construction of Federal Installations for Safe Containment and Disposal of Radioactive Waste (see *Nuclear Law Bulletin* Nos. 30, 39 and 46);
- Financial Security Ordinance (see *Nuclear Law Bulletin* Nos. 18, 19 and 69);
- Ordinance on Persons Responsible for Nuclear Safety and on Notification of Safety Related Events (see *Nuclear Law Bulletin* Nos. 51 and 68).

Hungary

Radiation Protection

Order on the Operational Radiation Protection of Outside Workers (2001)

This Order No. 30/2001 was adopted by the Minister of Health on 3 October 2001. It aims to implement the principles established in Council Directive 90/641/Euratom of 4 December 1990 on the Operational Protection of Outside Workers Exposed to the Risk of Ionising Radiation during their Activities in Controlled Areas (see *Nuclear Law Bulletin* No. 47). The Order implements in particular the principles of justification, optimisation and dose limitation and contains provisions governing dosimetric monitoring, inspection by the authority and the respective obligations of outside workers and of the licensee of controlled areas.

Order on the Protection of the Health of Persons Exposed to Ionising Radiation for Medical Purposes (2001)

This Order No. 31/2001 was adopted by the Minister of Health on 3 October 2001. It establishes conditions governing the application of medical radiological procedures, including the optimisation of medical exposure and reduction of potential exposure, duties of medical personnel in connection with the application of such procedures, the employment of medical physicists, control of radiological equipment, training of personnel and inspection by the competent authority.

This Order aims to implement Council Directive 97/43/Euratom of 30 June 1997 on Health Protection of Individuals against the Dangers of Ionising Radiation in Relation to Medical Exposure (see *Nuclear Law Bulletin* No. 60).

These requirements apply to persons exposed to ionising radiation for the purposes of medical treatment, who have to take a medical examination or an aptitude test in connection with a job or a medical screening test, forensic medical examination or for medical scientific research purposes.

Radioactive Waste Management

Decree on the Licensing of Shipments of Radioactive Waste Across the National Border (2002)

This Decree No. 32/2002, adopted on 1 March 2002, aims to implement Council Directive 92/3/Euratom of 3 February 1992 on the Supervision and Control of Shipments of Radioactive Waste between the Member States and Into and Out of the Community (see *Nuclear Law Bulletin* No. 49).

It regulates the licensing of shipments of radioactive waste to, from or in transit through Hungary and entrusts the Hungarian Atomic Energy Authority with the task of applying these rules. Pursuant to the Decree, such shipments should be monitored from the point of departure to the point of destination. The transport operations necessary for the shipment shall comply with national provisions and with international agreements on the transport of radioactive material.

Environmental Protection

Decree on Environmental Impact Assessment (2001)

This Decree No. 20/2001 was adopted on 14 February 2001 and replaces Government Decree No. 152/1995 on Activities Requiring the Completion of an Environmental Impact Assessment and on the Detailed Rules of the Connected Administrative Procedure. It is based upon Act No. LIII of 1995 on Environmental Protection and aims to implement Council Directive 85/337/EEC of 27 June 1985 and Council Directive 97/11/EC of 3 March 1997 on the Assessment of the Effects of Certain Public and Private Projects on the Environment (see *Nuclear Law Bulletin* No. 60).

The Decree regulates in detail the rules of environmental impact assessment. It established a more detailed list of projects having significant effects on the environment and further specifies the factors to be taken into account for an environmental impact assessment.

Order on Radioactive Releases into the Air and Water in Connection with the Use of Atomic Energy (2001)

Order No. 15/2001 was adopted on 6 June 2001 by the Minister of Environmental Protection. It provides for protection and monitoring of the atmosphere and bodies of water in respect of releases of radioactive materials during atomic energy applications.

The Order sets out the release limits, planned release levels, planning requirements and operational requirements concerning radioactive releases and monitoring of the environment. It establishes special rules for protection of waters and water-containing formations against radioactive contamination and heat pollution, inspection of radioactive releases and environmental protection. The National Inspectorate for Environment and Nature Conservation takes part in the licensing procedure.

Latvia

To implement the 2000 Act on Nuclear Safety and Radiation Safety (see *Nuclear Law Bulletin* No. 67; the text of this Act is reproduced in the *Supplement* to this Bulletin), the Cabinet of Ministers approved a number of regulations covering all major aspects of radiation safety and nuclear safety. In addition to those mentioned in a previous issue of the *Bulletin* (see *Nuclear Law Bulletin* No. 69), the following regulations complete the implementation of the Act:

Organisation and Structure

Regulations on the Statute of the Radiation Safety Board (2001)

Under these Regulations No. 132 issued on 20 March 2001, the Radiation Safety Board is an advisory institution which consults with State authorities, local governments and other bodies regarding issues related to radiation safety and nuclear safety, and which promotes co-operation among different institutions in order to strengthen radiation safety.

The Board is primarily responsible for:

- providing an opinion to the Ministry of Environmental Protection and Regional Development on proposals from various authorities and entities regarding membership and co-operation with different international organisations;

- examining legal documents drafted by the Radiation Safety Centre (RDC) before submission to the Ministry of Environmental Protection and Regional Development.

The Board is comprised of representatives from the following entities: Ministry of Environmental Protection and Regional Development, Ministry of Defence, Ministry of Internal Affairs, Ministry of Welfare, Ministry of Transport, Constitution Protection Bureau, the RDC, the University of Latvia or Riga Technical University and Association of Roentgenology and Radiology.

Radiation protection

Regulations on Activities Involving Ionising Radiation Sources, which do not Require a Special Permit (Licence) or Permit (2001)

These Regulations No. 288, issued on 3 July 2001, govern exemptions from licensing requirements. The main numeric values are in compliance with those found in IAEA Basic Safety Standards and Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation (see *Nuclear Law Bulletin* No. 58). The Regulations also set out criteria for exemption of practices involving thorium-containing welding electrodes and smoke detectors, or consumer and technical products containing naturally-occurring radioactive materials.

Regulations on the State Duty for the Issue of a Special Permit (Licence) or Permit for Activities Involving Ionising Radiation Sources (2001)

These Regulations No. 289, issued on 3 July 2001, define four groups of radiation sources according to radioactivity and/or dose rate:

- the first group is for sources of state significance (nuclear facilities, radioactive waste disposal sites and facilities where total radioactivity exceeds by one billion times the exemption levels);
- the second group comprises sources with radioactivity of 10^6-10^9 above exemption levels or which have a dose rate higher than 10 Sv/h at a one-metre distance;
- the third group covers sources with radioactivity of 10^3-10^6 above exemption levels or which have a dose rate higher than 0.1-10 Sv/h;
- the last group comprises sources with radioactivity of up to 10^3 above exemption levels or which have a dose rate up to 0.1 Sv/h.

Regulations on the Criteria Necessary to Obtain a Special Permit (Licence) or Permit for Activities Involving Ionising Radiation Sources (2001)

These Regulations No. 290 of 3 July 2001 set out criteria to be fulfilled by applicants for a licence or permit for activities involving ionising radiation sources.

Under the Regulations, a legal entity is entitled to apply for a licence and a physical person for a permit for certain sources with very low activity. Permanent representation offices (branches, departments) of foreign undertakings may also apply for a licence for practices involving sources of ionising radiation if such companies are registered as independent taxpayers and are enrolled on the Enterprise Register of the Republic of Latvia.

To obtain a special permit (licence) or a permit for practices involving ionising radiation sources, the applicant shall:

- reduce to a minimum threats to the life or health of employees or third parties related to the manufacture and use of ionising radiation sources;
- obtain adequate measuring instruments for radiation safety and nuclear safety;
- be prepared for radiation accidents;
- ensure that the qualifications of employees and the Job Manager conform to the duties to be performed;
- develop a quality assurance programme and quality control programme;
- establish an adequate environmental monitoring programme.

The Regulations further specify the required educational and professional qualifications for the Job Manager and the employees who perform activities involving ionising radiation sources.

Regulations on the Procedure for the Issue of a Special Permit (Licence) or Permit for Activities Involving Ionising Radiation Sources and Procedure for Public Debate on the Establishment of Ionising Radiation Facilities of State Significance or on Essential Modifications thereto (2001)

These Regulations No. 301, issued on 3 July 2001, comprise several chapters governing all safety aspects:

- general requirements, including also the term of validity for licences;
- basic list of documents which shall accompany an application for a licence or its renewal;
- procedures within the Radiation Safety Centre (RDC) and the Licensing Commission to examine applications;
- requirements for applications to carry out practices at facilities of state significance where there are no essential modifications;
- procedure for public debate on the establishment of ionising radiation facilities of state significance or on essential modifications thereto;
- information to be included in the licence;
- issue of the licence.

Regulations No. 301 also contain annexes empowering the RDC to licence practices involving dual-use equipment, materials and technologies – the lists are from the Nuclear Supplier Group lists and relevant EU regulations, e.g. Council Regulation (EC) No. 1334/2000 of 22 June 2000 setting up a Community regime for the control of exports of dual-use items and technology.

Regulations on the Procedure for Control and Accounting of Exposure of Workers (2001)

These Regulations No. 454, issued on 23 October 2001, are based on Council Directive 90/641/Euratom of 4 December 1990 on the operational protection of outside workers exposed to the risk of ionising radiation during their activities in controlled areas (see *Nuclear Law Bulletin* No. 47) and introduce dose passports and centralised thermo-luminescent-dosimetry (TLD) services by the Radiation Safety Centre (RDC).

The Regulations comprise six chapters, providing for individual monitoring of staff exposure (including dose passports), monitoring of the workplace, monitoring in the event of a radiological incident and assessment of occupational exposure.

Regulations on Medical Contraindications for Practices Involving Ionising Radiation Sources (2001)

These Regulations No. 538, issued on 28 December 2001, provide basic requirements for medical examinations. They establish criteria to use during medical examinations according to which physicians should decide whether or not a person is fit to carry out activities as a radiation worker.

Regulations on the Procedure for the Dismantling of Ionising Radiation Equipment which does not Contain Radioactive Substances (2002)

These Regulations No. 5 were issued on 3 January 2002. They establish requirements governing the dismantling of x-ray apparatus and the manner in which they should be struck from the source register after dismantling.

Regulations on Protection Against Ionising Radiation (2002)

These Regulations No. 149 were issued on 9 April 2002. They establish national Basic Safety Standards (BSS), based upon IAEA Basic Safety Standards and Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers resulting from ionising radiation (see *Nuclear Law Bulletin* No. 58). The main modifications to the Regulations on the Issuance of Licences and Permits for Activities with Radioactive Substances and Other Ionising Radiation Sources adopted on 20 June 1996 (see *Nuclear Law Bulletin* Nos. 57 and 59) are related to the new regulatory system, the partial exclusion of requirements for emergency preparedness due to ongoing activities to adopt separate regulations on this subject, which should be in force at the end of 2002, and the amendment of the national BSS with regard to radioactive contamination in food and foodstuffs, which were regulated in the past by two separate regulations. There are also some additional provisions in respect of naturally-occurring radioactive materials (in building materials and for protection against radon).

The Regulations consist of ten chapters:

- General provisions: scope, exclusions, prohibitions and regulatory infrastructure;
- Radiation safety and nuclear safety measures, including basic obligations for operators;
- Dose calculations;
- Dose limits;
- Protection of workers, apprentices and students against radiation: estimation of potential exposure, area classification and demarcation, health care and protective measures;
- Radiation safety and nuclear safety requirements for ionising radiation sources, including their manufacture, operation and maintenance;
- Protection of the population against ionising radiation;
- Protection against natural sources of ionising radiation in buildings, the workplace, water and construction materials;
- Protection against artificial sources of ionising radiation in buildings, water, air, food products and animal feeding products;
- Protective measures to reduce exposure.

Regime of Radioactive Materials (including Physical Protection)

Regulations on the Procedure Governing Activities Involving Nuclear Materials, Related Materials and Equipment (2002)

These Regulations No. 347 were issued on 24 September 2002. They establish a State System of Accounting for and Control of Nuclear Materials (SSAC) and implement the Additional Protocol to the Safeguards Agreement between the Republic of Latvia and the IAEA in connection with the Treaty on the Non-Proliferation of Nuclear Weapons (INFCIRC/434/Add.1).

Radioactive Waste Management

Regulations on Practices Involving Radioactive Waste and Related Materials (2002)

These Regulations No. 129 were issued on 19 March 2002. They repeal and replace the Regulations on Radioactive Waste Management adopted on 3 August 1999 (see *Nuclear Law Bulletin* No. 64), in order to take into account the establishment of the new regulatory authority, i.e. the Radiation Safety Centre (RDC), and to incorporate some specific recommendations received during the safety studies carried out by CASSIOPEE[18] relating to improvements in waste characterisation, waste acceptance criteria for spent sealed sources and final sealing of a repository.

Regulations on Generic Principles for Exchange of Radioactive Waste (2002)

These Regulations No. 157 were issued on 16 April 2002. They set out basic principles which provide that exchanges of radioactive waste must be of benefit, in terms of safety and radiation protection, to both the sending country and the receiving country and must be approved by the competent authorities of both States. Furthermore, the exchange operations must comply with Community and national provisions governing radioactive waste management and with international agreements on this subject (e.g. the 1997 Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management and the Fourth ACP-EEC Convention[19]).

To determine whether the exchange is of benefit to the countries concerned, a number of factors should be considered, including the risk to the public and the environment, and costs related to the management, storage and disposal of such waste.

18. A European Economic Interest Grouping, which was founded by six waste management agencies of European Union States: ANDRA of France; COVRA of the Netherlands; DBE of Germany; ENRESA of Spain; ONDRAF/NIRAS of Belgium; and UK NIREX of the United Kingdom.

19. Fourth Africa, Caribbean Islands and Pacific Ocean – European Economic Community (EEC) Convention signed at Lomé, Togo, on 15 December 1989.

Transport of Radioactive Materials

Regulations on Protection Against Ionising Radiation During the Transport of Radioactive Materials (2001)

These Regulations No. 307 were issued on 3 July 2001. They repeal and replace the Regulations on the Safe Transport of Radioactive Materials adopted on 28 July 1998 (see *Nuclear Law Bulletin* No. 62). The Regulations are fully based on the IAEA Regulations for the Safe Transport of Radioactive Material.

Regulations on the Procedure for Packaging and Marking of Ionising Radiation Sources (2001)

These Regulations No. 406 were issued on 18 September 2001. They establish requirements in relation to the packaging and marking of sealed and unsealed radiation sources and radiation apparatus.

Regulations on Radiometric Control of Cargo and Goods on the State Border (2002)

These Regulations No. 260 were issued on 25 June 2002. They provide for the detection by border guards, and the identification, investigation and assessment by the Radiation Safety Centre (RDC) of unknown ionising radiation sources on national territory, or discovered at the border.

Portugal

Organisation and Structure

Resolution Establishing the National Authority for the Comprehensive Nuclear-Test-Ban Treaty (2001)

Resolution No. 102/01, adopted on 29 August 2001, establishes the National Authority for the Comprehensive Nuclear-Test-Ban Treaty of 1996 (see *Nuclear Law Bulletin* No. 58). The National Authority is composed of five members (the President, two delegates from the Ministry of Finance, one delegate from the Ministry for the Environment and one Azores Regional Government delegate).

Radiation Protection

Decree-Law on the Protection of the Population against the Dangers of Ionising Radiation (2002)

Decree-Law No. 162/02 was adopted on 17 July 2002 and aims to implement Council Directive 96/29/Euratom of 13 May 1996 laying down the basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation (see *Nuclear Law Bulletin* No. 58). It sets out the basic principles governing radiation protection and describes the powers and duties of the different authorities involved in this field.

The General Directorate of Health is responsible for issuing licences for installations and equipment producing ionising radiation and the General Directorate of Energy is empowered to issue licences for nuclear fuel cycle installations. The Regional Health Authorities conduct inspections and control radiological installations.

This Decree-Law applies to all practices involving natural or artificial ionising radiation sources. It incorporates the principles of justification, dose limitation and the ALARA principle in respect of exposure and provides for the notification of any practice involving ionising radiation.

Decree-Law on Protection Against Ionising Radiation in Relation to Medical Exposure (2002)

This Decree-Law No. 180/02 was adopted on 8 August 2002 and aims to implement Council Directive 97/43/Euratom of 30 June 1997 on health protection of individuals against the dangers of ionising radiation in relation to medical exposure (see *Nuclear Law Bulletin* No. 60).

This Decree-Law sets out conditions governing the control and inspection of radiological equipment and installations and the duties and responsibilities of the owner and personnel of medical facilities.

Transport of Radioactive Materials

Decree-Law on the Transport of Dangerous Goods by Road (2000)

This Decree-Law No. 76/00, adopted on 9 May 2000, modifies Decree-Law No. 77/97 of 5 April 1997. It aims to implement Commission Directive 99/47/EC of 21 May 1999 on the approximation of the laws of the Member States with regard to the transport of dangerous goods by road and Council Directive 96/35/EC of 3 June 1996 on the appointment and vocational qualification of safety advisers for the transport of dangerous goods by road, rail and inland waterway.

The Decree-Law responds to the need to establish conditions governing the professional training and qualifications of dangerous goods vehicle drivers. It establishes the competence of the General Directorate of Land Transport to control the qualifications of transportation professionals. The General Directorate of Traffic has competence to evaluate the technical condition of vehicles, traffic conditions and road security.

Decree-Law on the Transport of Dangerous Goods by Sea (2000)

This Decree-Law No. 169/00, adopted on 8 August 2000, modifies Decree-Law No. 94/96 and aims to implement Council Directive 93/75/EEC of 13 September 1993 concerning minimum requirements for vessels bound for or leaving Community ports and carrying dangerous or polluting goods (see *Nuclear Law Bulletin* No. 62).

Decree-Law on the Transport of Dangerous Goods by Rail (2000)

This Decree-Law No. 227-C/2000, adopted on 22 September 2000, aims to implement Council Directive 96/49/EC of 23 July 1996 and Commission Directives 96/87/EC of 13 December 1996 and

1999/48/EC of 21 May 1999 on the approximation of the laws of the Member States with regard to the transport of dangerous goods by rail.

It applies to all activities involving the transport of dangerous goods or waste by rail taking place totally or partially on national territory. This includes all loading and unloading operations and also transfer to another type of vehicle or breaks due to transport conditions. The National Institute of Rail Transport is responsible for enforcing these rules.

Food Irradiation

Decree-Law on the Treatment of Food by Ionising Radiation (2001)

This Decree-Law No. 337/01, adopted on 26 December 2001, aims to implement Directive 1999/2/EC of 22 February 1999 of the European Parliament and of the Council on the approximation of the laws of the Member States concerning foods and food ingredients treated with ionising radiation and Directive 1999/3/EC of 22 February 1999 of the European Parliament and of the Council on the establishment of a community list of foods and food ingredients treated with ionising radiation (see *Nuclear Law Bulletin* No. 67). It applies to the manufacture, trade and import of food and food ingredients treated with ionising radiation.

The Decree-Law establishes the conditions which must be fulfilled for authorisation of the treatment of foodstuffs with ionising radiation. It also establishes conditions governing the import of foods and food ingredients from third countries.

The General Directorate of Health has competence to approve the design and operation of installations where such treatment takes place. It is obliged to retain records for several years on each used radiation source, and on the nature and quantity of irradiated food and food ingredients.

Russian Federation

Organisation and Structure

New Statute of the Russian Federal Agency for Nuclear and Radiation Safety (Gosatomnadzor) (2002)

On 22 April 2002, the Government of the Russian Federation issued Decree No. 265 approving the Regulation on the Russian Federal Agency for Nuclear and Radiation Safety (*Gosatomnadzor*). This Regulation sets out the new Statute of this Agency.

As a nuclear regulatory authority, the Agency is responsible for implementing the federal regulation of nuclear and radiation safety in the use of atomic energy for peaceful and defence purposes, and establishing conditions for the protection of the work force in facilities using atomic energy, for protection of the population and the surrounding environment from inadmissible levels of radiation, and for the prevention of uncontrolled dissemination and utilisation of nuclear materials.

The Agency is entrusted with the following tasks:

- to develop legislation on nuclear safety, radiation protection, physical protection and radioactive waste management;
- to issue licences to carry out nuclear-related activities and permits to workers involved in these activities;
- to monitor safety in the use of atomic energy, nuclear materials, and radioactive materials, and in the handling of nuclear and radioactive materials and radioactive waste;
- to conduct scientific research;
- to establish appropriate systems for the prevention of any violations including terrorist acts on nuclear facilities;
- to implement international obligations to ensure nuclear and radiation safety;
- to inform state agencies and the public about changes in nuclear and radiation safety in respect of nuclear devices, sources of radiation, and storage sites.

To fulfil its functions, the Agency has the right, *inter alia*:

- to conduct inspections and obtain the necessary documents and evidence for this purpose;
- to refuse, suspend or cancel a licence;
- to impose fines on organisations engaging in atomic energy activities without a licence or in breach of the licence conditions.

Any legal acts or regulations adopted by the Agency can be appealed in court.

The Agency is headed by a Director and Deputy Directors all appointed by the Government. A College is formed within the Agency comprised of the Director, Deputy Directors, other directors of structural subdivisions of the Agency, and other members nominated by the Government upon recommendation of the Director. The College examines the most important issues affecting the activities of the Agency and makes appropriate decisions.

To achieve its purposes, the Agency may establish scientific-technical or scientific-consultative, methodological and experimental councils. The status of the councils and their composition are established by the Director.

The Scientific-Technological Centre for Nuclear and Radiation Safety is under the direction of the Agency.

Slovak Republic

Since the description of the first implementing decrees and regulations of the 1998 Law on the Peaceful Use of Nuclear Energy (see *Nuclear Law Bulletin* No. 66), the Nuclear Regulatory Authority (ÚJD) has issued new decrees described below.

Regime of Nuclear Installations

Decree on Requirements on Quality Systems of the Licensees and on Alteration and Amendment of the Decree on the Qualifications of Personnel of Nuclear Installations (2002)

Decree No. 317 on requirements on quality systems of the licensees and on alteration and amendment of Decree No. 187 on the Qualifications of Personnel of Nuclear Installations (see *Nuclear Law Bulletin* No. 66) was issued by the Nuclear Regulatory Authority on 17 April 2002 and came into force on 1 July 2002.

This Decree describes the quality systems to be established by licence-holders for the siting, design, construction, commissioning, operation and decommissioning of nuclear installations, as well as criteria to be fulfilled by licensees. In addition, the Decree establishes criteria for the categorisation of items important for nuclear safety.

Decree on the Safety Documentation of Nuclear Installations and on Alteration and Amendment of the Decree on Emergency Planning in the Event of a Nuclear Incident or Accident (2002)

This Decree No. 318 was issued on 17 April 2002 by the Nuclear Regulatory Authority and entered into force on 1 July 2002.

Chapter I of this Decree specifies the safety documentation to be submitted when applying for a licence for the construction (Sections 2-11), commissioning (Sections 12-25), and the operation or extension of the lifetime (Sections 26-28) of a nuclear installation.

Chapter II amends Decree No. 245 on Emergency Planning in the Event of a Nuclear Incident or Accident (see *Nuclear Law Bulletin* No. 66), which now provides for a preliminary on-site emergency plan for nuclear installations in addition to the on-site and off-site emergency plans and the emergency transport procedure.

Regime of Nuclear Materials (including Physical Protection)

Decree Issuing the List of Special Materials and Equipment (1999)

Decree No. 29/1999 of the Nuclear Regulatory Authority entered into force on 1 March 1999. Enacted pursuant to Section 9(4) of the 1998 Law on the Peaceful Use of Nuclear Energy (see *Nuclear Law Bulletin* Nos. 60 and 61; the text of this Law is reproduced in the Supplement to *Bulletin* No. 62), it sets out the list of special materials and equipment especially designed or produced for use in the manufacture and processing of nuclear material and the list of special dual-use materials and equipment.

Third Party Liability

Decree Establishing the Maximum Limits for Quantities of Nuclear Material Below Which Nuclear Damage is not Expected to be Caused (1999)

Decree No. 30/1999 of the Nuclear Regulatory Authority entered into force on 1 March 1999. This Decree, enacted pursuant to Section 30(3) of the 1998 Law on the Peaceful Use of Nuclear Energy (see *Nuclear Law Bulletin* Nos. 60 and 61; the text of this Law is reproduced in the Supplement to *Bulletin* No. 62), lays down the maximum limits of quantities of nuclear material below which nuclear damage is not expected to be caused. Nuclear accidents caused by quantities of nuclear material lower than these thresholds are therefore excluded from the financial cover for liability for nuclear damage.

Slovenia

General Legislation

Act on Protection Against Ionising Radiation and Nuclear Safety (2002)

On 11 July 2002, the Parliament of the Republic of Slovenia adopted a new Act on Protection against Ionising Radiation and Nuclear Safety (Off. Gaz. RS, 67/2002), which entered into force on 1 October 2002.

The new Act consists of the following 16 main chapters, which are further divided into sub-chapters:

- General provisions (scope, definitions, basic principles in the field of nuclear and radiation safety);
- Practices involving ionising radiation (the obligation to report an intention to carry out practices involving radiation or to use a radiation source, carrying out of practices involving radiation, the use of radiation sources);
- Protection of people against ionising radiation (justification, dose limits, protection of exposed workers, medical exposure);
- Radiation and nuclear safety (the classification of facilities, in terms of radiation and nuclear safety; use of land, construction and carrying out of construction and mining activities; trial and actual operation of radiation and nuclear facilities; radioactive contamination; radioactive waste and spent fuel management; import, export and transit of nuclear and radioactive substances and radioactive waste; intervention measures);
- Licensing (issue, renewal, modification, withdrawal or expiry of a licence);
- Physical protection of nuclear substances and nuclear facilities;
- Non-proliferation of nuclear weapons and safeguards;

- Monitoring and control;
- Emergency planning;
- Reports on protection against ionising radiation and on nuclear safety;
- Records containing information on radiation sources and practices involving radiation;
- Financing of protection against ionising radiation and of nuclear safety (regular and irregular costs incurred by the user of a radiation source, public expenses);
- Compensation for the limited use of land due to a nuclear facility;
- Administrative tasks and inspection;
- Penal provisions; and
- Transitional and final provisions.

Amongst the main achievements of this new legislation are, *inter alia*, a clear division of the costs of implementing the Act between the State and licence-holders; a clearer definition of the licensing procedure; and inclusion of basic principles in this field such as the primary responsibility of licence-holders, the principle of peaceful uses, the polluter-pays principle, the justification principle, principle of optimisation etc. It also provides for the authorisation of qualified experts for radiation and nuclear safety, and ensures transparency and accountability in the fields covered by the Act. Furthermore, this legislation takes account of the existing body of EU law in the field of radiation and nuclear safety and of the international agreements to which Slovenia is a party.

The text of this legislation will be published in the Supplement to the next issue of the *Nuclear Law Bulletin.*