

ANALYSIS OF NUCLEAR ENERGY LAW IN BULGARIA

Roumen Vladimirov¹ and Katerina Yocheva²

Introduction

The structure of electricity generation in Bulgaria in 2010³ is dominated by coal based power plants (overall share of 42, 9 % of domestic energy production), closely followed by nuclear-based generation produced by the Kozloduy Nuclear power plant (hereinafter “NPP”), with overall share of 32, 6 %.

Besides, electricity from wind in 2010 has increased 3 times as compared to 2009 data and represents 12.1% of the overall energy generation. The share of hydro power is approximately 1.6 %.

As may be seen, the share of nuclear power in electricity generation in Bulgaria amounts approximately to one third.

According to Eurostat statistical data energy dependence (country dependency on energy and commodity import) of Bulgaria is slightly lower than the average for EU Member States (average 45, 6 % in 2009, including 98, 6 % for both natural gas and crude petroleum).

Lignite coal represents basic local resource for Bulgaria. Nuclear energy is considered to be local resource and to a great extent contributes for the improvement of energy independence.⁴

Bulgaria’s Energy Strategy⁵ aims at dealing with the basic contemporary challenges to Bulgarian energy, in particular it addresses the issue of the high dependency on energy

¹ Chair of the Law Department, New Bulgarian University, PhD, Professor in Criminal Law.

² Administrative director, Law Department, New Bulgarian University, PhD, Senior lecturer in EU and International law.

³ According to statistical data contained in “Бюлетин за състоянието и развитието на енергетиката на Република България” (2011) (Bulletin Regarding the State and Development of Energy in the Republic of Bulgaria), see at Internet address:

http://www.mi.government.bg/files/useruploads/files/spape/buletin_energy_2011-1.pdf

⁴ Bulletin Regarding the State and Development of Energy in the Republic of Bulgaria (2011).

⁵ Energy Strategy of the Republic of Bulgaria until 2020

http://www.mi.government.bg/files/useruploads/files/epsp/22_energy_strategy2020_.pdf

resources importation namely that Bulgaria assures 70% of its net consumption by means of import. There is in practice total dependency with regard to the import of crude petroleum and natural gas as well as of nuclear fuel and traditionally this dependency has been unilaterally oriented to the Russian Federation.

Current State of Nuclear Power Plants in Bulgaria

There is currently **one nuclear power plant** in operation, namely Kozloduy NPP, situated 200 kilometres north of the capital city of Sofia and 5 kilometres east of Kozloduy, a town on the Danube River, near the border with Romania. It is the country's only nuclear power plant and the largest in the region. The construction of the first reactor began on 6 April 1970. It is operational since 28 October 1974. The Commission date of the 6 units is as follows: 1974 (Unit 1), 1975 (Unit 2), 1980 (Unit 3), 1982 (Unit 4), 1987 (Unit 5) and 1991 (Unit 6).

The first 4 (4 x 440 MWe (Russian type VVER-440 reactors) of the overall 6 units on the site have been decommissioned in effect respectively as of 2004 (Units 1 & 2) and 2007 (Units 3 & 4).

Kozloduy NPP currently manages 2 pressurized water reactors with a total output of 2000 MWe. Units 5 and 6, constructed in 1987 and 1991 respectively, are VVER-1000 reactors. By 2014 they will be upgraded to reach a capacity of 1,100 MWe each. Kozloduy Nuclear Power Plant is a subsidiary of the 100 % state owned company Bulgarian Energy Holding EAD (hereinafter "BEH EAD")

Perspectives for Nuclear Power Plants In Bulgaria

A second NPP construction site in the town of Belene situated 3 kilometres from the town of Belene and to 11 kilometres from the town of Svishtov on the Danube river near the border with Romania, 234 kilometres North of the capital city of Sofia, has been decided by the Council of Ministers (the name of the Government of Bulgaria under the Constitution) by Decree No 9 of 20 March 1981. The construction on the site has started in the beginning of 1982.

The foundations of the new NPP were laid in 1987 following a project of „Atomenergoproekt“—Kiev and „Emergoproekt“— Sofia, which stipulated the construction

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of 4 units (WWER-1000/V 320). In the period 1988 — 1990 about 40% of the construction activities of the first unit have been carried out and 80% of the basic equipment has been supplied. In 1990 the NPP Belene has been frozen and ever since only conservation works has been carried out on the chosen site.

More recently, on 20 December 2002 the Council of Ministers adopted a Decision with regard to the renewal of the NPP Belene construction works.

Following the consecutive fulfillment of all legislative requirements on 8 April 2005 Bulgarian government has decided that the construction of second NPP on the Belene site with a maximum installed electricity power of 2000 MWe represents the best option to meet the increasing energy needs at stable and predictable prices and in compliance with environment protection requirements.

In December 2006 the Nuclear Regulatory Agency affirmed the Belene site as proper for the construction of a second NPP.

On 30 July 2008 the preparatory works for the construction of the future nuclear units started.

On 3 September 2008 the formal start of the construction works was given. The estimated deadline for the construction of the first unit according to the timetable was defined to be 6, 5 years, and that of the second planned unit - 7, 5 years taking into account the specific legislative terms and deadlines under Bulgarian legislation.

It was estimated that the first unit should be commissioned in 2013, and the second – in 2014.

On 18 April 2011 the state-owned owner of NPP BEH EAD has stated that HSBC bank is selected to be the strategic and financial consultant of the project.

On 11 July 2011 the National Energy Company and Atomstroieksport signed Addendum No 13 to extend the period of application of the Agreement of 2006 until 30 September 2011. On 30 September 2011 a new Addendum No 14 was signed to extend that period for a further period until 31 March 2012.

The so far construction delays of what will be the new nuclear power plant have already led to cost increases and related legal action before the International Chamber of Commerce in Paris.

Possible New Units 7 and 8 in Kozloduy NPP

In addition to the existing nuclear units and the on-going Belene NPP project, there are currently plans to increase the nuclear based power production in Bulgaria. The Government is planning another two units (respectively unit 7 and unit 8, 1000 MW each) to be constructed in the Kozloduy NPP site.

The possible equipment under discussion is by US reactors, each of 1000 MW. Such project was born in result of the delays in the NPP Belene construction and it is possible that in case of its implementation the new units 7 and 8 may become operational even before the first units of the Belene NPP.

Such an idea although recently revived has been launched since more than 15 years, however it has been frozen mainly because of two major problems concerning the water supply and the inclusion of the reactor in the national energy transfer system. Following the decommissioning of the first 4 reactors such problems do not exist anymore and the idea is again under consideration. Such an idea is cheaper than Belene NPP since there are ready cooling, monitoring and emergency planning systems already in place however the start of the construction works has been delayed because of the licensing procedure with regard to the safety of the new reactors.

Meanwhile on 8 March 2011 the Kozloduy NPP open call for tenders regarding the prolongation of the term of exploitation of units 5 и 6 which terms of exploitation expire respectively in 2017 и 2019. The expectations are their term of exploitation to be prolonged by further 15 to 20 years.

On 30 March 2011 the minister of finance and vice-prime minister Simeon Dyankov stated that the „the construction of units 7 and 8 In Kozloduy is more efficient than the NPP Belene project because of the available infrastructure. Both NPP projects should in all cases be considered simultaneously“.⁶

⁶ See at Internet address: http://dariknews.bg/view_article.php?article_id=691944.

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On his part, recently the minister of economy, tourism and energy Traycho Traykov said on 12 January 2012 that Kozloduy NPP is energy project No 1 in terms of prolongation of the term of exploitation of the current units 5 and 6 and in view of possible new units 7 and 8.⁷

As such, the nuclear based power generation in Bulgaria is on the rise. The nuclear-based energy alongside energy from renewable sources is mentioned among the priorities in the Energy Strategy of the Republic of Bulgaria until 2020.

The evolution of the legislative framework for nuclear power projects in Bulgaria and its current status will be examined below in more detail.

The study will then provide an overview of the executive and judicial institutions active in the area of nuclear energy management and regulation. It will further examine the authorization schemes in place in Bulgaria before considering nuclear safety issues and nuclear waste management issues.

The impact of Fukushima disaster of 2011 on Bulgaria's nuclear legislation and projects will be evaluated in the closing part of the study.

Legislative Framework for Nuclear Power Projects in Bulgaria

In 1957 Bulgaria ratified the Statute of the International Atomic Energy Agency (IAEA). Thus it became one of the states-founders of this international organization. This fact imposed the establishment of **proper national legal framework** as well as of a **specialized state body** (see more details further below) to co-ordinate the activities connected with the use of atomic energy in the country and in the international community.

As of 2011 Bulgaria is engaged in the area of nuclear energy international legal regulation in the scope of its EU and EURATOM full membership as of 1 January 2007.

It should be pointed out that in the area under consideration the international and EU legal regulation and obligations take precedence over the domestic regulation. This stems directly from the Constitution of the Republic of Bulgaria of 1991.⁸ According to Article 5 (4) of the Constitution:

⁷ See at Internet address: http://frognews.bg/news_41916/.

⁸ Constitution of the Republic of Bulgaria, Prom. SG 56/13 Jul 1991, see the full text in Internet at address: <http://parliament.bg/en/const>.

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“International treaties which have been ratified in accordance with the constitutional procedure, promulgated and having come into force with respect to the Republic of Bulgaria shall be part of the legislation of the State. They shall have primacy over any conflicting provision of the domestic legislation”.

It should also be noted that the internal legal framework has gradually evolved from initially strictly regulatory to more sophisticated – legislative regulation in recent years.

Thus in 1985 Bulgarian National Assembly (the Parliament) adopted the **Act on the Use of Atomic Energy for Peaceful Purposes**.⁹

In addition, on 27 July 1995 the National Assembly adopted the Act on amendments and supplements to the Act on the Use of Atomic Energy for Peaceful Purposes of 1985. This Act regulated the free market rules in the use of sources of ionizing radiation. It has also established a fund on “Safe Storage of Radioactive Waste (RAW)’ and a fund on “Decommissioning of Nuclear Facilities”.

The national legislation was approximated with the provisions of the Vienna Convention on Civil Liability for Nuclear Damage (hereinafter, “the Vienna Convention”, in force for Bulgaria as of 24 November 1994), the penalties for violations of the regulations in the field of atomic energy were increased.

Nowadays the main relevant legal act in the nuclear law area in force in Bulgaria is the **Act on the Safe Use of Nuclear Energy**¹⁰ in force as of 2 July 2002.¹¹

The Act of 2002 was promulgated in the State Gazette (hereinafter, also “SG”) No 63/2002, last amended and supplemented SG No 80/2010.

This Act covers the activities associated with the State regulation on the safe use of nuclear energy and ionising radiation and on the safety of radioactive waste management and spent

⁹ Promulgated in the State Gazette (SG) No 79 of 1985, amended in SG No 80 of 1985; amended in SG No 71 of 1998.

¹⁰ The present paper uses the translation into EN of that Act published at the official Internet site of the Nuclear Regulatory Agency at: <http://www.bnsa.bas.bg/en/documents-en/legislation/laws>. Despite some translation inconsistencies all the citations follow that language version. Where it is deemed necessary the original in BG shall also be indicated.

¹¹ According to paragraph 2 of the Transitional and final provisions of the Act of 2002 the Act on the Use of Atomic Energy for Peaceful Purposes is superseded.

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fuel management. It specifies the rights and duties of licensees in conducting those activities, to ensure nuclear safety, radiation protection and physical protection.

The Act of 2002 specifies that in the uses of nuclear energy nuclear safety and radiation protection have priority over all other aspects of the activity with the following **fundamental principles** being applied:

1. Responsibility for ensuring nuclear safety and radiation protection rests entirely with the persons responsible for facilities and activities (licensees) under the Act and may not be delegated to other persons;
2. Persons responsible for facilities and activities under the Act shall establish and sustain an effective safety management system;
3. Expected economic, social and other benefits shall outweigh the possible adverse consequences to which they give rise;
4. Measures for ensuring nuclear safety and radiation protection shall be optimized so as to provide the highest level of protection that can reasonably be achieved;
5. Occupational and public exposure to ionising radiation shall be restricted and kept as low as reasonably achievable;
6. The concept of “defence in depth” shall be applied and all practical efforts shall be made to prevent accidents and mitigate their consequences;
7. An effective system for emergency preparedness and response to nuclear or radiation accidents shall be established and sustained;
8. Protective actions to reduce existing and/or unregulated radiation risks shall be justified and optimized;
9. Competent authority implementing the State regulation of the safe use of nuclear energy and ionising radiation shall be provided with human and financial resources sufficient to thoroughly fulfil its responsibilities.

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Apart from the International Treaties in force for Bulgaria and the Act on the Safe Use of Nuclear Energy of 2002 there are numerous **complementary regulatory acts**¹² in force entitled **Regulations** (наредби)¹³ related to the application of the Act on the safe use of nuclear energy, nuclear safety, and radiation protection.¹⁴

For the sake of completeness it should be noted that apart from the Act of 2002 and the numerous Regulations further adopted in its implementation there are other domestic laws that apply subsidiary in the cases explicitly specified in the Act of 2002.

Such subsidiary applicable laws explicitly referred to in the Act of 2002 are:

- the Act on the Administration,¹⁵
- The Conflict of Interest Prevention and Disclosure Act,¹⁶
- the Arms and Dual-Use Items and Technologies Export Control Act,¹⁷
- the Spatial Development Act,¹⁸
- the Subsurface Resources Act,¹⁹
- the Energy Act,²⁰
- the Environmental Protection Act,²¹
- the National Budget Act,²²
- the National Budget Procedures Act,²³
- the State Property Act,²⁴

¹² Not quite correctly translated as “statutory instruments of secondary legislation” in the official EN version of the Act of 2002.

¹³ Not to be confused with Regulations on EU level (as defined in Article 288 of the TFEU). In BG law under paragraph 2 of Article 7 of the Law on the Normative Acts “regulations are normative acts adopted in application of individual provisions or sections of a legal act of higher normative degree”.

¹⁴ See full list of domestic Regulations currently in force with brief description of their scope in the attached Annex.

¹⁵ Pursuant to Article 6 (2) of the Act of 2002.

¹⁶ Pursuant to Article 7 (1) point 6 of the Act of 2002.

¹⁷ Pursuant to Article 15 (4) point 13 and Article 57, point 6 of the Act of 2002.

¹⁸ Pursuant to Article 34 (1), Article 44 (1), Article 63, Article 74 (4), Article 93 (1) point 5 and Article 105 (2) of the Act of 2002.

¹⁹ Pursuant to Article 43 of the Act of 2002.

²⁰ Pursuant to Article 46 (1) of the Act of 2002.

²¹ Pursuant to Article 47 (1) of the Act of 2002.

²² Pursuant to Article 49 (1) point 2 and Article 92 (1) point 2 of the Act of 2002.

²³ Pursuant to Article 54 (3) and Article 97 (3) of the Act of 2002.

- the Municipal Property Act,²⁵
- the State Agency for National Security Act,²⁶
- Classified Information Protection Act,²⁷
- Administrative Infractions and Penalties Act.²⁸

Institutional Framework and Competences of the Public Authorities Involved

This part of the study will present the main public bodies, active in some aspect of nuclear energy markets. The role and competences of these public sector bodies will be further developed below.

Bulgaria's membership in the main international bodies, active in the area of atomic energy, namely IAEA and EURATOM, imposed the establishment of specialized state body to co-ordinate the activities connected with the use of atomic energy in the country.

At the beginning a Committee for Peaceful Use of Atomic Energy within the Council of Ministers was established by its Ordinance No 603 of June 1957. The controlling and co-ordinating activities of the Committee were directed towards scientific research activities, medicine, industry and agriculture.

By Decree No 31 of 15 March 1975 of the Council of Ministers the tasks of the Committee have been supplemented by regulatory functions. The Committee was established as a state and public body to co-ordinate and to regulate the implementation of the tasks of the peaceful use of atomic energy, the adherence to the rules for safe operation of the Nuclear power plant (hereinafter, "NPP") and the implementation of the internal and external dosimetry control.

Moreover, a Directorate on Nuclear Safety was further established by Decree No 1305 of the (then) State Council. The regulatory activities of the Committee were supplemented with

²⁴ Pursuant to Article 74 (5), Article 86 (1) point 8 and Article 109 (4) of the Act of 2002.

²⁵ Pursuant to Article 109 (4) of the Act of 2002.

²⁶ Pursuant to Article 112 (3) and Article 116 (3) of the Act of 2002.

²⁷ Pursuant to Article 116a of the Act of 2002.

²⁸ Pursuant to Article 148 (3) of the Act of 2002.

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controlling functions over the institutions and organizations operating nuclear facilities and using nuclear material.

The Act on the Use of Atomic Energy for Peaceful Purposes established new Committee on the Use of Atomic Energy for Peaceful Purposes within the Council of Ministers, comprising in its structure the Inspectorate on the Safe Use of Atomic Energy. Managerial staff from ministries and other institutions involved in the use of atomic energy was included in the committee staff.

Two consultative councils were established within the Committee on the Use of Atomic Energy for Peaceful Purposes, namely the Council on the Safety of Nuclear Facilities and the Council on Radiation Protection.

On 22 August 2002 the Council of Ministers by Decree reorganized the former Committee on the Use of Atomic Energy for Peaceful Purposes in a **Nuclear Regulatory Agency** (hereinafter, “NRA”).²⁹ Besides, the Council of Ministers approved the Rules of Procedure of the NRA.

Among the fundamental legally established principles applicable to the uses of nuclear energy in Bulgaria is the one that provides that:

“The **competent authority** implementing the State regulation of the safe use of nuclear energy and ionising radiation shall be provided with human and financial resources sufficient to thoroughly fulfill its responsibilities”.

The Competent authority under the above-mentioned provision is the **Chairman of the Nuclear Regulatory Agency**.

According to the Rules of Procedure of the NRA the Chairman of the Nuclear Regulatory Agency (hereinafter, also “the NRA Chairman”) is established to act as independent specialized body of the executive and to exercises the state regulation of the safe use of nuclear energy and sources of ionizing radiation and the safe management of radioactive waste and spent fuel.

²⁹ According to paragraph 3 of the Transitional and Final provisions of the Act of 2002 within one month after the entry of this Act into force, the Council of Ministers shall transform the Committee on the Use of Atomic Energy for Peaceful Purposes with the Council of Ministers into a Nuclear Regulatory Agency and shall adopt the Organizational Structure of the Agency.

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According to the Act of 2002 he is an independent specialized authority of the executive. Two Deputy-Chairmen assist the Chairman in the exercise of the powers thereof according to Article 4 (3) of the Act of 2002.

Besides, there are other competent authorities referred to within the scope of the Act of 2002. Under the law in force special powers in the area under consideration are given to:

- The Council of Ministers,
- The Prime Minister,
- Individual ministers from the Government.

An overview of their particular competences in the area under consideration is made in the following points.

Competences of the NRA Chairman

Under the applicable legal regulation the NRA Chairman is designated by a decision of the Council of Ministers and is appointed by the Prime Minister for a period of five years and may be appointed for one additional term of office.

The Council of Ministers appointed Dr. Sergey Tzotchev as Chairman of the Nuclear Regulatory Agency as of 20 October 2004.

Under Article 4 (1) of the Act of 2002 the Chairman of the Nuclear Regulatory Agency carries out the State regulation of the safe use of nuclear energy and ionising radiation, the safety of radioactive waste management and the safety of spent fuel management. Article 5 of the Act of 2002 specifies in details the particular powers of the NRA Chairman. Under the said provision he is entitled with some administrative tasks (such as to manage and represent the NRA) but also with many important functions in the area of the implementation of nuclear legislation, the authorization procedure, supervision of safety requirements and standards, interaction with other competent authorities of the executive power and in the area of international co-operation in the framework of Euratom and IAEA. In the context of the effects of the Fukushima disaster of 2011 the NRA chairman *inter alia* performs the functions of a competent authority and a contact point for notification of an accident and for provision of assistance.

Competences of the Council of Ministers

The Council of Ministers (according to the Constitution of Bulgaria of 1991 this is the official name of the Government in Bulgaria³⁰), is responsible for the general governing of the state. It is responsible to direct and conduct State's domestic and foreign policy. It is also the main decision-making body for both governmental and administrative matters. This includes, in particular, decision-making relating to nuclear power in Bulgaria. The Council of Ministers is headed by the Prime Minister. As plenary body the current Council of Ministers consists of a Prime Minister, Deputy Prime Ministers and ministers.

At present there are 16 Ministries in the 87-th Government, headed by Prime Minister Mr. Boyko Borissov active since 27 July 2009. Each ministry is responsible for the preparation of matters within its field of its respective competence and it may be easily seen that the name of the ministry gives an indication of its competence area. This competence area for each ministry is specified by the Government Rules of Procedure and by Decrees governing the organization and powers of each ministry.³¹

The Ministries in the current Council of Ministers are as follows: Ministry of Foreign Affairs, Ministry of Justice, Ministry of the Interior, Ministry of Defence, Ministry of Finance, Ministry of Education, Youth and Sciences, Ministry of Culture, Ministry of Agriculture and Forestry, Ministry of Transport, Ministry of Labour and Social Policy, Ministry of Health, Ministry of Environment and Water, Ministry of Economy, Energy, and Tourism, Ministry of Regional Development and Public Works, Ministry of Sport and Ministry for European Union Funds.

More specifically the Government as collegial public body is entitled to various powers in the area of nuclear safety under the provisions of the Act of 2002. They may be grouped together as follows:

a) Powers to nominate:

- The NRA Chairman,³²

³⁰ See more details in Chapter 5, entitled "Council of Ministers"q including Articles 105-116 of the Constitution of Bulgaria at Internet address <http://parliament.bg/en/const>.

³¹ For more details see the official site of the Government of Bulgaria at Internet address <http://www.government.bg/>.

³² Under Article 4 (2) of the Act of 2002.

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- two Deputy-Chairmen assisting the Chairman,³³
- Designate a new Chairman in the case of removal of the NRA Chairman for the remainder of the term of office.³⁴
- b) **Powers to Adopt** Rules of Procedure of the NRA³⁵ on a motion by the NRA Chairman
- c) **Powers to adopt regulations** (наредби) upon the initiative of the NRA Chairman and/or other competent authorities,³⁶
- d) **powers to take decisions** in specific cases in particular as concerns the construction of NPP³⁷ or a decision to declare a nuclear power plant or separate unit to be a radioactive waste management facility if the nuclear fuel has been completely removed from the facility³⁸ or decisions on construction of a national repository for disposal of radioactive waste,³⁹ etc.
- e) **powers to determine fees**,⁴⁰
- f) **powers to adopt strategies** in particular a strategy for spent fuel management and for radioactive waste management,⁴¹
- g) **powers to receive annual reports**, in particular:

³³ Under Article 4 (3) of the Act of 2002.

³⁴ In accordance with Article 7 (2) of the Act of 2002.

³⁵ Under Article 8 (3) Agency structure, operation and work organization, as well as number of staff shall be determined by Rules of Procedure to be adopted by the Council of Ministers on a motion by the NRA Chairman.

³⁶ Under Article 5 (17) the Council of Ministers is to adopt regulations on the application of the Act of 2002. Detailed list of the areas in which regulations are to be adopted is given in Article 26 of the Act of 2002. Most of the regulations currently in force are based on Article 26 of the Act (see details on the legal bases and the scope of the Regulations in the Annex). The Council of Ministers is entitled explicitly to adopt regulations on the basis of Articles 19 (1), 55 (1), 65 (3), 77 (3), 94 (1), 111, 113 (4), 123, 126 and 135 of the Act of 2002 on a motion mainly by the NRA Chairman.

³⁷ Under Article 45 of the Act of 2002 a nuclear power plant shall be built pursuant to a decision of the Council of Ministers.

³⁸ In compliance with Article 47 (1) of the Act of 2002 such decision of the Council of Ministers shall be adopted if an environmental impact assessment has been performed in the cases provided for by the Environmental Protection Act.

³⁹ According to Article 74 (3) of the Act of 2002.

⁴⁰ Under Article 28 (1) fees shall be collected for implementing regulatory activities under the Act in amounts established in a rate schedule approved by the Council of Ministers, as well as under Article 31 of the Act of 2002 which provides that the procedure for payment of fees under this Act shall be established by a regulation adopted by the Council of Ministers on a motion by the NRA Chairman (see details on this regulation in the Annex, under No 18 Regulation on the procedure for payment of the fees collected pursuant to the Act of 2002).

⁴¹ In accordance with Article 74 (1) of the Act of 2002.

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- a report by the NRA Chairman on the status of nuclear safety and radiation protection in the use of nuclear energy and ionizing radiation and in radioactive waste management and spent fuel management,⁴²
- a report by the NRA Chairman on the activities of the NRA,⁴³
- reports under the Convention on Nuclear Safety and the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management by the NRA Chairman,⁴⁴
- a report of the Management Board of the Nuclear Facilities Decommissioning Fund,⁴⁵
- report from the Management board of the Radioactive Waste Fund.⁴⁶
- h) **powers to designate** a flight-ban area above specific nuclear facilities, in which the use of the airspace for air navigation shall be restricted,⁴⁷
- i) **powers to designate** the licensee that, within the meaning of the Vienna Convention, is an operator of the nuclear installation, and the type and conditions of the financial security covering the liability of the operator for nuclear damage.⁴⁸

Competences of the Prime Minister

In accordance with the Constitution of Bulgaria of 1991 the Prime minister is an individual authority within the Government.⁴⁹ He has **two specific powers** in the area under consideration, as follows:

- to appoint the NRA Chairman⁵⁰ and
- to appoint the two Deputy-Chairmen of the NRA.⁵¹

⁴² Under Article 5 (10) of the Act of 2002.

⁴³ Ibid.

⁴⁴ Under Article 5 (11) of the Act of 2002.

⁴⁵ In compliance with Article 54 (1), point 6 of the Act of 2002.

⁴⁶ Under Article 97 (1), point 9 of the Act of 2002.

⁴⁷ According to Article 105 (4) of the Act of 2002.

⁴⁸ Under Article 129 of the Act of 2002.

⁴⁹ See Article 108 of the Constitution of the Republic of Bulgaria, at Internet address <http://www.parliament.bg/en/const>.

⁵⁰ Under Article 4 (2) The NRA Chairman shall be designated by a decision of the Council of Ministers and shall be appointed by the Prime Minister for a period of five years and may be appointed for one additional term of office.

Competences of Individual Ministers

Above all, Article 13 of the Act of 2002 explicitly mentions some of the Members of the Council of Ministers. These are namely the Minister of Health, the Minister of Environment and Water, the Minister of Interior, the Minister of Defense, the Minister of Agriculture and Food, the Minister of Transport, the Minister of Education, Youth and Science who **shall exercise specialized control** in accordance with their competencies specified in the legislation. Each of the afore-mentioned individual Members of the government dispose of other explicitly conferred powers under the Act of 2002.

Thus the powers of the **Minister of Health** are set out in Articles 16⁵², 26 (3 and 5), 60 (2)⁵³, 66 (1),⁵⁴ 109 (2)⁵⁵ and 111.

Regulatory initiative is conferred to the **Minister of Interior** under Articles 113 (4) and 114 (1) jointly with other state bodies.

The **Minister of Defense** is also vested with regulatory initiative under Articles 105 (4) and 113 (4) of the Act of 2002.

The competences of the **Minister of Agriculture and Food** stem from Articles 109 (2) and 111 of the Act of 2002.

The **Minister of Transport**⁵⁶ has explicit powers in the area of transport of nuclear material, radioactive waste and radioactive substances under Article 26 (4) as well as with regard to the determination of flight-ban area above specific nuclear facilities, in which the use of the airspace for air navigation shall be restricted in accordance with Article 105 (4).

⁵¹ Under Article 4 (3) In the exercise of the powers thereof, two Deputy-Chairmen shall assist the Chairman. The two deputies shall be designated by a decision of the Council of Ministers on a motion by the NRA Chairman, and shall be appointed by the Prime Minister.

⁵² Under paragraph 5 of Article 16 the Minister of Health should adopt regulation with the specific health requirements to anyone using nuclear energy or sources of ionising radiation or involved in radioactivewaste management and spent fuel management.

⁵³ Specifying that a licence for use of sources of ionizing radiation for medical purposes shall be issued following official consent by the Minister of Health through the National Centre of Radiobiology and Radiation Protection.

⁵⁴ This Article provides that an individual licence shall be issued to a person who satisfies the medical and psycho-physiological requirements for the relevant activity, as determined by the Minister of Health.

⁵⁵ Under which the Minister of Health, the Minister of Agriculture and Food, and the Minister of Environment and Water may impose restrictions on the use of land, forests and water within the precautionary action zone.

⁵⁶ According to paragraph 42 of the Transitional and Final provisions of the Act to Amend and Supplement the Telecommunications Act (SG No 88/2005) in the Act of 2002 the words "Minister of Transport and Communications" shall be replaced passim by "Minister of Transport".

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The **Minister of Environment and Water** is entitled to perform functions in accordance with Articles 26 (3), 109 (2),⁵⁷ 111 and 120.⁵⁸

The powers of the **Minister of Economy, Energy and Tourism** are most extensive in the area.⁵⁹

The **Minister of Regional Development and Public works** has powers under Articles 74 (5), 105 (1)⁶⁰ and 109 (3) of the Act of 2002.

The **Minister of Finance** is competent in the procedure for assessment, collection, spending and control of the financial resources under Article 55 (1) as well as under Article 74 (5) in Activities leading to expropriation of real estate representing private property or part of such property, allocated for the construction of a national repository for disposal of radioactive waste. He is also competent under Articles 94 (1) and 97 (1), point 7 of the Act of 2002.

On his part, the **Minister of Foreign Affairs** has sole competence under Article 45 where the operation of the nuclear power plant may impact the public and the environment of another country. In such cases he is obliged to notify the competent authorities of that country.

Finally, the explicit powers of the **Minister of Environment and Water** are set out in Articles 26 (3), 109 (2), 111 and 120 of the Act of 2002.

Competent Judicial Body in Nuclear-related Issues

The Act of 2002 provides in its Article 137 the competent jurisdiction to settle actions for nuclear damages. Except as otherwise provided by the Vienna Convention all such actions fall within the jurisdiction of Bulgarian courts. The Act designates Sofia City Court as pertinent court at first instance to be competent to hear any such actions.

Regional Relationships

The Act of 2002 establishes provisions as regards the construction and operation of nuclear power plants with regard to regional cooperation. The pertinent regulation is set out in Article 45 (3) of the Act of 2002 and applies where the operation of the nuclear power plant may

⁵⁷ To impose restrictions on the use of land, forests and water within the precautionary action zone

⁵⁸ The Minister of Environment and Water is entitled to receive on-site emergency plan from licensees six months prior to the commissioning of a nuclear facility.

⁵⁹ He has powers under Articles 45 (2 and 4), 48, 51 (2), 52 (1), 55 (1 and 2), 74 (1, 2 and 5), 82, 83, 84, 86, 87, 89, 91, 94 (1), 95 (2) of the Act of 2002.

⁶⁰ To establish precautionary action zones.

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impact the public and the environment of another country. In such cases the Minister of Foreign Affairs is under the obligation to notify the competent authorities of that country. The Minister shall provide, if so requested, all information those authorities may need for evaluation and analysis of the potential impact of the plant on their territory regarding public safety and environmental protection. Any official statement from such authority received shall be attached to the proposal to construct a nuclear power plant.

Relationships with the Local Authorities

As to relationships with the local authorities Article 45 (4) of the Act of 2002 applies as regards the construction and operation of nuclear power plants. The law specifies an obligation for the Minister of Economy, Energy and Tourism to organize a public discussion of the proposal for construction of a nuclear power plant with the participation of state bodies and bodies of the local governments, representatives of public organizations, private persons and legal entities concerned. Notice of this discussion shall be given through the mass media or in another appropriate manner not later than one month before the discussion. An assessment of discussion results shall be attached to the proposal to construct a nuclear power plant.

Besides, the law provides for cooperation with the local governments as regards the management of radioactive waste and spent fuel. Thus under Article 74 (1) of the Act of 2002 the Council of Ministers shall adopt a strategy for spent fuel management and for radioactive waste management on a motion by the Minister of Economy, Energy and Tourism. On its part, the Minister of Economy, Energy and Tourism shall organize a public discussion of the strategy draft with the participation of representatives from state bodies, local governments, public organizations, persons and legal entities concerned. Notice of the discussion shall be provided through the mass media or in another appropriate manner.

Measures to Encourage the Development of Nuclear Energy in Bulgaria

Licensing Procedures

The applicable according to the Act of 2002 authorization process is described in Chapter Three of the Act of 2002. The law subjects the use of nuclear energy or sources of ionising radiation by natural persons or legal entities to the prior receipt of **a permit and/or a license**

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for the safe implementation of the relevant activity under the Act of 2002.⁶¹ The same applies with regard to activities with regard to radioactive waste management and spent fuel management.⁶²

The law envisages that licensees and permit holders shall bear the overall responsibility for ensuring the safety of the facilities and activities as specified in the respective license or permit.

The NRA Chairman is responsible to issue, amend, suspend, and revoke licenses and permits under conditions of legal equality and transparency. Licenses and permits under the Act constitute individual administrative acts.

The law provides for the issue according to the case of **two types of administrative acts**, entitled respectively licenses or permits. The conditions whereupon license is issued are specified in Article 15 (3) of the Act of 2002. On its part, paragraph 4 of Article 15 of the Act of 2002 sets out the conditions for the issue of a permit.

Granting Policy

According to the provisions of the Act of 2000 the NRA Chairman is responsible for the NRA granting policy. He bears the responsibility for the:

- Assignment of external expertise, research and studies related to nuclear safety and radiation protection in using nuclear energy and ionising radiation and in radioactive waste management and spent fuel management;⁶³
- Grant of license for specialized training to a sole trader natural person or to a legal entity registered in the Republic of Bulgaria.⁶⁴

Tax Reliefs

As regard the legally envisaged tax reliefs the Act of 2002 provides for such tax reliefs in several explicit cases.

- Firstly, with regard to the fees for licenses or permits,⁶⁵

⁶¹ Under Article 14 (1) of the Act of 2002.

⁶² Under Article 14 (2) of the Act of 2002.

⁶³ Under Article 5 of the Act of 2002.

⁶⁴ As provided for in Article 65 (1) of the Act of 2002.

- Secondly, as concerns the contributions to the Nuclear Facilities Decommissioning Fund,⁶⁶
- Thirdly, with regard to the contributions to the Radioactive Waste Fund.⁶⁷

Measures of Environmental Compensation for Localizing the Plants

The basic legally established principle is that “nuclear energy and ionising radiation shall be used in compliance with nuclear safety and radiation protection requirements and principles with the aim of ensuring [...] **protection of the environment** and property against harmful impact of ionising radiation”.⁶⁸

Under its Article 16 the law sets out an obligation for those using nuclear energy or sources of ionising radiation or involved in radioactive waste management and spent fuel management *inter alia* **to perform monitoring of radiological characteristics of the site and the environment.**

The law provides for several cases where **environmental impact assessment** is imperative.

On the first place, a substantial prior requirement in the context of the legally established licensing procedure is that a **decommissioning license** for a nuclear facility shall be issued provided there is a favorable decision on the environmental impact assessment.⁶⁹

On the second place, the law takes into consideration environmental considerations in the area of construction and operation of nuclear power plants by providing in Article 45 (2) point 1 of the Act of 2002 that any proposal to construct a nuclear power plant shall be submitted accompanied by an **assessment of environmental impact,**

Similarly and thirdly, according to Article 47 (1) of the Act of 2002 a decision to declare a nuclear power plant or separate unit to be a radioactive waste management facility shall be

⁶⁵ In accordance to Article 32 of the Act of 2002 the fees for licences or permits shall be allowed as expenses deductible for taxation purposes and as economically justified costs for purposes of pricing.

⁶⁶ According to Article 49 (3) of the Act of 2002 the contributions to the Fund shall be considered as operating expenses deductible for taxation purposes and as economically justified costs for the purposes of pricing.

⁶⁷ In compliance with Article 94 (2) of the Act of 2002 the contributions to the Fund by legal entities and natural persons conducting activities resulting in generation of radioactive waste shall be allowed as running operating expense deductible for taxation purposes in respect of the activity regarding the generation of such radioactive waste.

⁶⁸ As stipulated in Article 3 (1) of the Act of 2002.

⁶⁹ See Article 39 (3) of the Act of 2002.

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adopted if an **environmental impact assessment** has been performed in the cases provided for by the Environmental Protection Act.

Besides, in its Article 108 the Act of 2002 provides for an obligation for persons who operate a nuclear facility or a site with sources of ionising radiation to exercise **constant control** over the radiation parameters of the working premises and **the environment** in the precautionary action zone and the surveillance zone.

As regards emergency planning and preparedness the Act of 2002 envisages in its Article 117 an obligation for the state bodies and the persons implementing activities in the scope of the law to establish measures for emergency planning and emergency preparedness in the form of emergency plans for protection of the population (so called off-site emergency plans), which regulate the emergency planning areas and determine the actions to be taken by the competent authorities to protect *inter alia* **the environment** in the case of an accident.

Moreover, also in the context of emergency planning and preparedness the law sets an obligation of licensees and relevant permit holders in case of an accident to ensure continuous monitoring of the radioactive releases into the environment as stipulated in Article 122, point 4 of the Act of 2002.

Safety Policy

Under the General Provisions part of the Act on the Safe Use of Nuclear Energy the Act of 2002 covers the activities associated with the State regulation on the **safe use of nuclear energy** and ionising radiation and on the **safety of radioactive waste management and spent fuel management**. Thus the law specifies the rights and duties of licensees in conducting those activities, to ensure nuclear safety, radiation protection and physical protection.

Moreover, in Article 3 of the Act of 2002 the legislator explicitly stipulates the legal obligation that nuclear energy and ionising radiation to be used **in compliance with nuclear safety** and radiation protection requirements and principles. Thus the law aims to ensure the protection of human life, health and living conditions of both present and future generations, the environment and property against the harmful impact of ionising radiation.

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In addition, the law provides that in the uses of nuclear energy and ionising radiation, and in radioactive waste management and spent fuel management nuclear safety and radiation protection shall have priority over all other aspects of the activity. As mentioned already above, one of the applicable in this regard fundamental principles explicitly states that the responsibility for ensuring nuclear safety and radiation protection rests entirely with the persons responsible for facilities and activities (licensees) under the law and may not be delegated to other persons. It is an obligation of those persons to establish and sustain an **effective safety management system**. Further on, the law imposes in principle for the measures for ensuring nuclear safety and radiation protection to be optimized so as to provide the highest level of protection that can reasonably be achieved.

The law confers overall powers for the state regulation of the safe use of nuclear energy and ionising radiation, the safety of radioactive waste management and the safety of spent fuel management to the Chairman of the Nuclear Regulatory Agency.⁷⁰

In compliance with the provisions of Article 9 (1) of the Act of 2002 the NRA Chairman establishes **Advisory Council on Nuclear Safety** comprising prominent scientists and experts in the field of nuclear energy. The Advisory Council assists Chairman activities by giving expert advices on the scientific aspects of nuclear safety.

Financing of studies, analyses and expertise associated with assessment of nuclear safety and radiation protection is envisaged among the priorities for the expenditure of the financial resources of the NRA under Article 11 (2) of the Act of 2002.

Regulation Regarding Treatment of Nuclear Wastes in Bulgaria

Radioactive waste management, including all activities related to handling, pretreatment, treatment, conditioning, storage or disposal of radioactive waste, including the decommissioning of a radioactive waste management facility⁷¹ falls within the scope of activities of the so-called **Radioactive Waste State-Owned Company**. It is established under the provisions of Section II (articles 78-89 of the Act of 2002) of Chapter Four, entitled “Management of radioactive waste and spent fuel”. The Radioactive Waste State-Owned

⁷⁰ See Article 4 (1) of the Act of 2002.

⁷¹ See Article 79 (1), point 1 of the Act of 2002.

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Company is a legal entity with a registered office in the capital city of Sofia having the status of a state-owned enterprise under the Commercial Code of Bulgaria.

The Act of 2002 generally provides in its Article 76 that the radioactive waste outside the place of generation is to be **managed solely by the Radioactive Waste State-Owned Company**. The NRA Chairman is entitled to issue an operating license for a radioactive waste management facility and the respective permits solely to the Radioactive Waste State-Owned Company.

Under Article 77 of the Act of 2002 there is an obligation for licensees generating radioactive waste to deliver this waste to the Radioactive Waste State-owned Company within the time limits established by Regulation adopted by the Council of Ministers on a motion by the NRA Chairman.⁷²

Radioactive waste becomes state property from the moment of its delivery to the Radioactive Waste State-Owned Company. Besides, the Radioactive Waste State-Owned Company bears the responsibility for managing any radioactive waste imported into the territory of the Republic of Bulgaria from abroad that cannot be retransferred.

Safety Standards for Plants and Production Process

Under Article 5 of the Act of 2002 **the NRA Chairman** supervises the fulfillment of safety requirements and **standards related to the safe use of nuclear energy** and ionising radiation, radioactive waste management and spent fuel management, and of conditions of licenses and permits issued, including supervision of nuclear safety related high-risk equipment during commissioning, operation and decommissioning of nuclear power plants;

Article 16 (1) of the Act of 2002 imposes **obligation** on those carrying out activities in the scope of the Act of 2002 **to comply with nuclear safety**, radiation protection and physical protection requirements, standards and rules during the performance of the relevant activity and to establish and sustain an effective management system for the respective activities, giving priority to safety and ensuring high level of safety culture.

Pursuant to Article 26 (2) nuclear safety and radiation protection requirements, standards and rules for use of nuclear energy and sources of ionising radiation, radioactive waste

⁷² See in the Annex Regulation on the terms and procedure for delivery of radioactive waste to the Radioactive Waste State-Owned Company (Promulgated in the State Gazette No 64 of 23 July 2004).

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management and spent fuel management, regarding siting, design, construction, commissioning, operation and decommissioning of nuclear facilities and facilities with sources of ionising radiation are established by Regulations adopted by the Council of Ministers on a motion by the NRA Chairman.

Currently in force are the following Regulations adopted on the basis of Article 26 (2) of the Act of 2002:

- Regulation on ensuring the safety of nuclear power plants,⁷³
- Regulation on ensuring the safety of research nuclear installations,⁷⁴
- Regulation for radiation protection during activities with sources of ionizing radiation (SIR),⁷⁵
- Regulation for safety of spent fuel management,⁷⁶
- Regulation on safety during decommissioning of nuclear facilities,⁷⁷
- Regulation for safe management of radioactive waste.⁷⁸

The Act of 2002 in its Chapter Eleven, entitled “Administrative and Penal Provisions”, and in particular in Article 141 of it, forming part of the section on Administrative liability, provides for **penalties** in cases of violations of nuclear safety, physical protection and radiation protection requirements and standards.

Thus if the violation occurs during operation of a nuclear facility the punishment is in the form of a property sanction of 3,000 BGN⁷⁹ or more but not exceeding 20,000 BGN.⁸⁰

In case the violation occurs during performance of practices with sources of ionising radiation the punishment is in the form of a fine of 1,000 BGN⁸¹ or more but not exceeding

⁷³ See under No 2 in the Annex.

⁷⁴ See under No 3 in the Annex.

⁷⁵ See under No 5 in the Annex.

⁷⁶ See under No 12 in the Annex.

⁷⁷ See under No 13 in the Annex.

⁷⁸ See under No 14 in the Annex.

⁷⁹ Approx. 1 500 EUR.

⁸⁰ Approx. 10 000 EUR.

⁸¹ Approx. 500 EUR

5,000 BGN⁸² or a property sanction of 2,000 BGN⁸³ or more but not exceeding 10,000 BGN.⁸⁴

The fine or the property sanction for a repeated violation in the above cases is equivalent to three times the amount of the above-mentioned penalty or fine.

Regulation Concerning Decommissioning of Nuclear Sites in Bulgaria

Under Article 5 (3) of the Act of 2002 the NRA Chairman supervises *inter alia* the fulfillment of conditions of licenses and permits issued, including supervision of nuclear safety related high-risk equipment during commissioning, operation and **decommissioning** of nuclear power plants.

With the last amendments in the Act of 2002 published in SG No 80/2010 Article 15 (3) was complemented with a new point 8, stipulating that a **license** shall be issued for decommissioning of a nuclear facility. A **permit**, however, is issued for decommissioning of a site with radioactive substances pursuant to point 10 of Article 15 (4) of the Act of 2002.

In compliance with point 4 of Article 19 (1) of the Act of 2002 any license and permit shall specify the conditions for carrying out the activity connected with nuclear safety, radiation protection and physical protection, including the conditions for decommissioning of the facility or site.

Under Article 26 (2) of the Act of 2002 the Council of Ministers on a motion by the NRA Chairman is entitled to adopt regulation regarding *inter alia* decommissioning of nuclear facilities. On the basis of this provision currently in force is Regulation on safety during decommissioning of nuclear facilities.⁸⁵

Article 35 of the Act of 2002 stipulates that the NRA Chairman is the competent authority to issue a license for decommissioning of a nuclear facility. Such license may only be issued to a legal entity registered in the Republic of Bulgaria complying with the legal requirements, pointed out in Article 35 (2) of the Act of 2002. Any such license may be issued for a term of validity not exceeding ten years.

⁸² Approx. 2 500 EUR

⁸³ Approx. 1 000 EUR

⁸⁴ Approx. 5 000 EUR.

⁸⁵ See under No 13 in the Annex.

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A special case is provided for in Article 22 (3) of the Act of 2002 applicable for termination of licenses whereupon there is an obligation for the former licensee to ensure nuclear safety, radiation protection and physical protection at the nuclear facility, nuclear material and other sources of ionising radiation until the issuance of a new license to a new licensee or **until the safe decommissioning** of the relevant facility or site. In such cases according to Article 37 (2) of the Act of 2002 where the licensee does not possess sufficient financial resources to provide for the nuclear safety, radiation protection and physical protection, the resources needed for the termination of the activity shall be provided from the Nuclear Facilities Decommissioning Fund.

Article 39 of the Act of 2002 specifies the conditions for issue of decommissioning license for a nuclear facility. It may be issued to a person that is the owner or holder of real rights to the nuclear facility, or to a person possessing the right to perform decommissioning activities according to the Act of 2002.

Moreover, the law stipulates that such license shall be issued provided there is a favorable decision on the environmental impact assessment.

Under Section V (Articles 48 - 55) entitled “Nuclear Facilities Decommissioning Fund” of Chapter Three of the Act of 2002 which is in force as from 1 January 2003 a **Nuclear Facilities Decommissioning Fund** is established under the auspices of the Minister of Economy, Energy and Tourism for the purpose of financing activities relating to decommissioning of nuclear facilities.

The law provides that the financial assets of the above-mentioned Fund are to be expended solely for the purpose of financing nuclear facilities decommissioning activities.⁸⁶ Pursuant to Article 51 of the Act of 2002 the Fund is governed by a Management Board chaired by the Minister of Economy, Energy and Tourism.

Conclusions

⁸⁶ See Article 50 (1) of the Act of 2002.

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First of all, it should be noted in conclusion that the above legal overview of the nuclear law in Bulgaria reflects the *status quo* preceding the Fukushima Disaster of 2011 since the last legislative amendments of the current legislation are as of 12 October 2010.⁸⁷

The future perspectives in the area of nuclear energy in Bulgaria are most obvious from the Energy Strategy of the Republic of Bulgaria until 2020 published in June 2011 and thus presumably taking into consideration the consequences of Fukushima. It is obvious from its text that “the government’s vision for energy development in next years” presupposes “leading part for clean and low emission energy – nuclear-based and from renewable sources”.

Further in the above-mentioned Strategy the Government clearly states as priority that: “In search of reasonable balance between the available energy country resources and the European objectives for clean energy Bulgarian state will continue to support and to promote nuclear energy development”. Bulgarian decision-makers express a view in support of keeping available resources and to further increase the share of nuclear energy in the country by means of prolongation of the exploitation period of units 5 and 6 of NPP Kozloduy as well by the construction of new nuclear power units of 2000 MWe.

As a most recent new tendency probably influenced by Fukushima accident may be pointed out the position of the Prime Minister during the recent visit in Bulgaria on 5 February 2012 of US Secretary of State Hillary Clinton. During that visit among the main issues under bilateral discussion were the energy situation and projects in Bulgaria. According to Mrs. Clinton USA will help Bulgarian people to assure energy at reasonable price. She announced the recent visit of US Special Envoy for Eurasian Energy Ambassador Richard L. Morningstar in Sofia to discuss in Sofia both environmental and energy issues. Bulgaria’s Prime Minister firm opinion, which he repeated several times during the visit, was that nature and environment considerations are prior for Bulgaria.⁸⁸ Speaking about the NPP Belene project Mr. Borissov was again firm that if there is certainty as to the safety of the second NPP and that there exist no risks of its decommissioning in the next ten years the

⁸⁷ Without taking into consideration the most recent Regulation on emergency planning and preparedness in cases of nuclear or radiation accidents (adopted by Decree of the Council of Ministers No 313 of 22 November 2011).

⁸⁸ See overview of the press conference of Hillary Clinton and Boyko Borissov at Internet address: http://bnt.bg/bg/news/view/69472/preskonferencija_na_hilari_klinton_i_bojko_borisov.

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Government would support the project without delay, however because of existing uncertainty on those issues the country will continue to keep a close watch at them. Later, during the visit of Ambassador Richard L. Morningstar in Sofia on 10 February 2012 Prime Minister Borissov again stated that “preserving nature is priority” for the Government.⁸⁹ Mr. Borissov highlighted during the meeting with the US Special Envoy for Eurasian Energy that “leaving Bulgarian nature in a state allowing for the possibility of next generations to make use of it is at the first place, financial and economic benefits come next in the row”.

Next, after the nuclear accident in Fukushima of March 2011 the European Commission has required a re-assessment of all nuclear power plants in the European Union. The aim is to learn from what has happened in Japan and to seek possible measures to rule out the possibilities for similar disasters to occur in the EU.

Following the process described in the EU Stress Test Specification, the Bulgarian Nuclear Regulatory Agency has sent to the Kozloduy NPP the requirements for performance of **stress tests** as a targeted re-assessment of the plant safety margins in natural disasters leading to severe accidents. The re-assessment of all nuclear facilities at the Kozloduy site – units 3,4,5 and 6, their spent fuel pools, the spent fuel storage facility and the spent fuel dry storage facility was performed.

The Kozloduy NPP prepared and provided to the NRA a Progress Report about the stress tests implementation within the required terms. On its part, NRA has performed a review and verification of the Kozloduy NPP Progress report. On 15th September 2011 the BNRA sent to the European Commission “European Stress Tests – Bulgarian National Progress Report”.⁹⁰

The Kozloduy NPP is proceeding with the work on the preparation of the Final Report. The deadline for Bulgaria to send its National Final Report to the European Commission was 31 December 2011.

⁸⁹ As announced in mass media, see for example an article at Internet address: <http://www.segabg.com/article.php?id=588500>

⁹⁰ See the full text of the National Progress Report of Bulgaria applicable to Kozloduy Nuclear Power Plant in Internet at: <http://www.bnsa.bas.bg/en/documents-en/conventions-en/reports-en/eustresstests-progresreportbulgaria.pdf>.

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Besides, on 5 January 2012 the NRA Chairman Dr. Sergey Tzotchev stated⁹¹ that NPP Belene has proved to be “a modern project with high safety levels”. Thus he summarized the conclusions from the stress tests on the NPP Belene project. The site under construction is capable to resist to earthquakes according to the opinion of nuclear experts. “The project may sustain serious internal or external accidents” pointed out the NRA Chairman. In December 2011 experts from the IAEA made an inspection of the project and gave a positive evaluation. However, negotiations on the construction of the second NPP in Bulgaria between Russia and Bulgaria would remain frozen until March 2012.

Meanwhile, the most recent opinion poll carried out online in the last days of 2011 by Bulgarian newspaper⁹² reveals the following answers to the question “Should Bulgaria continue with the construction of a second NPP in the town of Belene”? The final results of this online poll are as follows:

Yes, because the electricity consumption shall further increase (**18%**)

Yes, since this is the cheapest source of energy (**28%**)

No, because its construction costs a lot (**8%**)

No, since nuclear power plants are insecure and dangerous (**20%**)

The energy mafia shall decide, nothing depends on society (**26%**)

These results clearly show the public opinion in Bulgaria. They speak enough on their own and should be left without further comments.

Again as regards the construction of a second Bulgarian NPP in the town of Belene, on 25 March 2011 the former Prime Minister of Bulgaria Mr. Ivan Kostov, leader of the democrats in the Parliament, read a Declaration in the National Assembly of Bulgaria (the Parliament).⁹³ In that declaration he insisted that the Government should without any further negotiations with Russia freeze the construction of a new NPP in Belene until the new mandatory European nuclear energy safety requirements come into force. In the same Declaration he

⁹¹ In interview for a local newspaper published at Internet address http://dariknews.bg/view_article.php?article_id=833507&audio_id=98564.

⁹² The pole was published in Internet at: <http://www.168chasa.bg> on 31 December 2011.

⁹³ See the full text of the article in Internet at: <http://www.vesti.bg/index.phtml?tid=40&oid=3703871>.

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insisted that the future of the NPP Belene project is to be definitively decided by means of a referendum and by the final say of Bulgarian citizens. “Belene in Bulgaria is same as Fukushima in Japan. This is our risk”, Mr. Kostov concluded.

With regard to the Fukushima disaster and its repercussions in Bulgaria it is especially useful to mention some findings and conclusions of Petar Kardjilov, Doctoral student in the Faculty of Mass communications at Sofia University in his paper “Fukushima I nuclear accidents and the NPP “Belene” case: a view towards risk and crisis communication”, published on 12 May 2011.⁹⁴ In his paper he points out “Few days before the Fukushima accident in Bulgaria and Russia there were negotiations on the Belene NPP project, where the responsible negotiating bodies in Bulgaria made important communication faults in the project co-ordination both with the broad society and between themselves.[...] The analysis of various media sources reveals the manner in which the public communication and the particular activities of the Government as regards the Belene NPP project apparently neglect the European and universal debates concerning safety for NPP and instead concentrate on the minor issue of economic efficiency of the project realization.

No doubt the Belene NPP project is a project of high risk. This is so not only because of exploitation dangers and the storage of spent fuel, but also because of the bad site location in seismic area”.

Other examples in support of the experts conclusions about the dangers related to Belene NPP project are found in two opinions expressed in our mass media, namely those of James Warlick⁹⁵ and Meglena Kuneva.⁹⁶ According to the then US Ambassador: “Bulgarians Are Lagging Behind with the Nuclear Energy Debate”.⁹⁷ With regard to the absence of proper debate on the safety and the role of politicians as communicators in the Belene NPP project

⁹⁴ Аварииите в АЕЦ „Фукушима 1” и казуът АЕЦ „Белене”: поглед към риск и кризисната комуникация, (Fukushima I nuclear accidents and the NPP “Belene” case: a view towards risk and crisis communication), Петър Кърджилов, Докторант, ФЖМК at Internet address: <http://www.newmedia21.eu/analizi/avariite-v-aets-fukushima-1-i-kazust-a/>.

⁹⁵ James Warlick is the United States Ambassador to Bulgaria.

⁹⁶ Former European Commissioner for Consumer Protection, the first Commissioner of Bulgaria.

⁹⁷ See article „Джеймс Уорлик: Българите изпускат дебата за ядрената енергетика”(), in Дневник, 15 April 2011 in Internet at address: http://www.capital.bg/politika_i_ikonomika/bulgaria/2011/04/15/1075741_bulgarite_izpuskat_debata_za_iadrenata_energetika/.

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Meglana Kuneva goes even further by saying that: “Japan events reminded us, that when talking about nuclear energy safety is the top priority”.⁹⁸

Apparently the debate on the role and place of nuclear energy in Bulgaria is open and on. It still remains for the future to see the legislative outcomes out of it.

⁹⁸ See article „Меглена Кунева: Дискусията за АЕЦ „Белене“ е силно манипулирана и повлияна от външни интереси” (The NPP Belene Discussion is Highly Manipulated and Influenced by Foreign Interests), Медиапул, 22 March 2011 in Internet at address: <http://mediapool.bg/show/?storyid=177411>.

ANNEX

1. Regulation for the procedure for issuing licenses and permits for safe use of nuclear energy (Promulgated in the State Gazette No 41 of 18 May 2004, amended SG No 78 of 30 September 2005, in force as of 1 October 2005)⁹⁹

The Regulation defines all matters related to the procedures for issuing, changing, renewing, canceling, revoking and controlling the licenses and permits demanded by the Act of 2002. The structure of the Regulation takes into consideration the specifics of the types of nuclear facilities, activities and sites with sources of ionizing radiation. The scope and contents of the required documents is specified taking into account the necessary measures for providing the nuclear safety, radiation and physical protection. For activities with certain types of ionizing radiation sources, based on the lower risk for the population and the environment, alleviations of the required documents are provided.

2. Regulation on ensuring the safety of nuclear power plants (Promulgated in the State Gazette No 66 of 30 July 2004, amended SG No 46 of 12 June 2007, and amended SG No 53 of 10 June 2008)¹⁰⁰

The Regulation settles the matters related to the basic criteria and rules for the safety of nuclear power plants based on the concept of in-depth defense.

Subject to regulation are the organizational measures and technical requirements for providing of the safety during site selection, design, construction, commissioning and operation of nuclear power plants. The Regulation contains detailed instructions related to the determination of the design basis and safety evaluations, the characteristics of the site and the safety requirements for the nuclear power plant and its systems.

The Regulation is developed based on the IAEA safety standards and the reference levels for harmonization of the safety requirements for nuclear power plants, defined by the West European Nuclear Regulators' Association (WENRA).

⁹⁹ According to paragraph 13 of the Transitional and Final provisions of the Regulation it is adopted on the basis of Article 26 (1) of the Act of 2002.

¹⁰⁰ According to paragraph 7 of the Transitional and Final provisions of the Regulation it is adopted on the basis of Article 26 (2) of the Act of 2002.

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3. **Regulation on ensuring the safety of research nuclear installations** (adopted by Decree of the Council of Ministers No 231 of 2 September 2004, promulgated in the State Gazette No 80 of 14 September 2004)¹⁰¹

The Regulation specifies basic criteria and rules for the safety of research nuclear installations. Subject to regulation are the organizational measures and technical requirements for providing of the safety during site selection, design, construction, commissioning and operation of research nuclear installations. The Regulation contains detailed instructions related to the design basis and safety evaluations, the characteristics of the site and the safety requirements for the research nuclear installations.

4. **Regulation on basic norms of radiation protection** (adopted by Decree of the Council of Ministers No 190 of 30 July 2004, Promulgated in the State Gazette No 73 of 20 August 2004)¹⁰²

The Regulation reflects the requirements of the 96/29/EURATOM Directive, setting the basic standards for protecting the health of personnel and population from the damaging influence of ionizing radiation. The basic principles of radiation protection are developed, and the dose limits for personnel and population are set.

In accordance with the provisions of the Directive, the concept for releasing from control of radioactive substances due to permitted activities, and the concept for limitation of irradiation are introduced.

The Regulation sets requirements for monitoring of the working quarters, and the individual irradiation, as well as for the registration of the results of this monitoring.

The requirements of Directive 90/641/EURATOM for operational protection of outside workers from the damaging influence of ionizing radiation during their activities in the controlled areas are introduced.

In relation to the engagements of the Bulgarian side in the negotiations with the European Union, the Regulation introduces the basic principles and requirements for radiation protection from medical irradiation, taking into consideration Directive 84/466/EURATOM

¹⁰¹ Pursuant to paragraph 6 of the Additional provisions of the Regulation it is adopted on the basis of Article 26 (2) of the Act of 2002.

¹⁰² According to paragraph 3 of the Transitional and Final provisions of the Regulation it is adopted on the basis of Article 26 (3) of the Act of 2002.

for health protection from the damaging influence of ionizing radiation from medical irradiation.

5. Regulation for radiation protection during activities with sources of ionizing radiation (SIR) (Promulgated in the State Gazette No 74 of 24 August 2004, amended and supplemented SG No 74 of 8 September 2006, in force as of 1 January 2007, amended SG No 46 of 12 June 2007, in force as of 12 June 2007)¹⁰³

The Regulation defines the basic requirements and rules for radiation protection during activities with sources of ionizing radiation and the condition and the procedure for accounting of the sources of ionizing radiation. The Regulation puts in place requirements for radiation monitoring during activities with sources of ionizing radiation.

The Regulation specifies technical and organizational rules for conforming to the established in Bulgaria basic norms for radiation protection.

6. Regulation on the terms and procedure for obtaining of vocational qualification and on the procedure for issuing of licenses for specialized training and of individual licenses for use of nuclear power (Promulgated in the State Gazette No 74 of 24 August 2004, amended SG No 46 of 12 June, 2007)¹⁰⁴

The Regulation defines the conditions and procedure for acquiring professional qualification for execution of activities in nuclear facilities, and facilities with sources of ionizing radiation, the positions for which qualification is required, the procedure for issuing licenses for specialized training and certificates for qualification, as well as the conditions and procedure for carrying out exams for acquiring qualification.

7. Regulation for the provision of physical protection of nuclear facilities, nuclear material and radioactive substances (adopted by Decree of the Council of Ministers No 224 of 25 August 2004, promulgated in the State Gazette No 77 of 3 September

¹⁰³ According to paragraph 3 of the Final provisions of the Regulation it is adopted on the basis of Article 26 (20 of the Act of 2002.

¹⁰⁴ According to paragraph 13 of the Transitional and Final provisions of the Regulation it is adopted on the basis of Article 65 (3) and Article 71 of the Act of 2002.

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2004, amended SG No 96 of 30 November 2005, supplemented SG No 44 of 9 May 2008)¹⁰⁵

In the Regulation, according to the Act of 2002 and the convention for physical protection of nuclear material, the matters related to physical protection of nuclear facilities, and during use, storage and transportation of nuclear materials and radioactive substances are defined.

The provisions of the Regulation take into consideration the specifics of the different kinds of nuclear facilities, nuclear materials and radioactive substances, which demand different levels of physical protection, depending on the category of nuclear materials and radioactive substances and the degree of risk.

8. **Regulation of the conditions and procedure for notification of the Nuclear Regulatory Agency about events in nuclear facilities and sites with sources of ionizing radiation** (adopted by Decree of the Council of Ministers No 188 of 30 July 2004, promulgated in the State Gazette No 71 of 13 August 2004, amended SG No 46 of 12 June 2007)¹⁰⁶

The Regulation defines the obligations of the licensee or the holder of a permit for creation of a system for collecting, registration, investigation, analysis and evaluation of events and determination of corrective measures.

Also defined are the requirements for usage of the information about events, including for analysis of the operational experience, determining of the importance of the events for safety, as well as the procedure and terms for providing information to the citizens for events of different importance.

9. **Regulation on emergency planning and emergency preparedness in case of nuclear and radiological emergencies** (adopted by Decision of the Council of Ministers No 189 of 30 July 2004, Promulgated in the State Gazette No71 of 13 August 2004)¹⁰⁷

¹⁰⁵ According to paragraph 5 of the Transitional and Final provisions of the Regulation it is adopted on the basis of Article 113 (4) of the Act of 2002.

¹⁰⁶ According to paragraph 6 of the Final provisions of the Regulation it is adopted on the basis of Article 19 (1) point 8 of the Act of 2002.

¹⁰⁷ According to paragraph 4 of the Transitional and Final provisions of the Regulation it is adopted on the basis of Article 123 of the Act of 2002.

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The Regulation defines, in accordance to the provisions of the Act of 2002, the conditions and procedure for developing emergency plans and the obligations of the persons who apply them.

The actions and measures for limitation and liquidation of the consequences of nuclear or radiation accident are also defined as well as the criteria for decision taking for their activation and the methods for informing the population. Subject to definition is also the maintenance and control of the emergency preparedness and the interaction between the executive authorities and the licensees or holders of permits according to the Act of 2002.

10. Regulation for the conditions and procedure for establishing of special-statutory areas around nuclear facilities and facilities with sources of ionizing radiation
(adopted by Decree of the Council of Ministers No 187 of 28 July 2004, promulgated in the State Gazette No 69 of 6 August 2004, amended SG No 46 of 12 June 2007, amended SG No 53 of 10 June 2008)¹⁰⁸

In the Regulation the criteria for determining the size and boundaries of the zones with special status, the procedure for creating the zones and for exercising the powers of competent state authorities according to the law are established.

The Regulation sets requirements for the activities of licensees and holders of permits, according to the Act of 2002, in the zones with special status, including for, provision of radiation monitoring of the environment and the population. Criteria are defined for the compensations for damages suffered from restrictions over usage of private real estate in the zones.

11. Regulation on the conditions and procedure of transport of radioactive material
(adopted by Decree of the Council of Ministers No 156 of 13 July 2005, promulgated in the State Gazette No 60 of 22 July 2005)¹⁰⁹

The Regulation defines the requirements and procedure for ensuring the radiation protection and safety of transport of radioactive material on the territory of the Republic of Bulgaria.

¹⁰⁸ According to paragraph 4 of the Final provisions of the Regulation it is adopted on the basis of Article 111 of the Act of 2002.

¹⁰⁹ According to paragraph 5 of the Transitional and Final provisions of the Regulation it is adopted on the basis of Article 26 (4) of the Act of 2002.

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12. Regulation for safety of spent fuel management (adopted by Decree of the Council of Ministers No 196 of 2 August 2004, promulgated in the State Gazette No 71 of 13 August 2004)¹¹⁰

The Regulation defines in detail the matters related to the basic criteria and rules for providing nuclear safety and radiation protection in the management of spent nuclear fuel according to the provisions of the Act of 2002, as well as the specific organizational measures and technical requirements for providing the safety during site selection, design, construction, commissioning and operation of facilities for spent nuclear fuel management.

Matters related to the technical safety, fire and physical protection, emergency planning and emergency preparedness of the spent nuclear fuel management facilities are defined in the draft of the Regulation, to the extent that follows from the in-depth defense concept.

13. Regulation on safety during decommissioning of nuclear facilities (adopted by Ordinance of the Council of Ministers No 204 of 5 August 2004, promulgated in the State Gazette No 73 of 20 August 2004)¹¹¹

The Regulation provides that the safe decommissioning of nuclear facilities to be implemented through preliminary and interim planning, determination of a concept and developing of a plan for decommissioning, while for each stage of the planning, the safety of the decommissioning activities must be validated.

The Regulation defines the basic safety requirements during decommissioning for the maintenance of the safety related systems and equipment, for the deactivation and dismantling of the equipment, for the radiation protection and for the radioactive waste management. It is foreseen that with the completion of each stage of the decommissioning of the nuclear facility, the holder of the permit should develop and present to the regulator an actualized report on the safety evaluation of the completed stage.

14. Regulation for safe management of radioactive waste (adopted by Decree of the Council of Ministers No 198 of 3 August 2004, Promulgated in the State Gazette No 72 of 17 August 2004)¹¹²

¹¹⁰ According to paragraph 4 of the Transitional and Final provisions of the Regulation it is adopted on the basis of Article 26 (2) of the Act of 2002.

¹¹¹ According to paragraph 5 of the Transitional and Final provisions of the Regulation it is adopted on the basis of Article 26 (2) of the Act of 2002.

The Regulation defines the requirements, regulations and rules for safety during site selection, design, construction, commissioning and operation of facilities for radioactive waste management.

The Regulation also defines the obligations of the entities carrying out radioactive waste management activities. The entities which generate radioactive waste as a result of their activities are responsible for its safe management from the moment of generation of the radioactive waste to the moment it is transferred to the State enterprise “Radioactive waste” or until it is released from regulatory control.

15. Regulation on the terms and procedure for delivery of radioactive waste to the Radioactive Waste State-Owned Company (Promulgated in the State Gazette No 64 of 23 July 2004)¹¹³

The entities, which generate radioactive waste as a result of their activities, are obliged to transfer the waste to the State enterprise, which is responsible for the management of the radioactive waste after the deposit.

The Regulation defines the conditions and procedure for transferring the radioactive waste to the State enterprise “Radioactive Waste” and the terms for the transfer, as well as the radioactive waste not eligible for transfer. Specific procedures are defined for transferring radioactive waste generated from previous activities, radioactive waste with unknown owner, or which has been imported to the country and cannot be returned.

The radioactive waste becomes state property at the moment of its transfer to the State enterprise.

16. Regulation on the terms and the procedure for collection and provision of information and for maintaining registers on the activities pertaining to the application of safeguards in Connection with the Treaty on the Non-proliferation

¹¹² According to paragraph 7 of the Transitional and Final provisions of the Regulation it is adopted on the basis of Article 26 (2) of the Act of 2002.

¹¹³ According to paragraph 4 of the Transitional and Final provisions of the Regulation it is adopted on the basis of Article 77 (3) of the Act of 2002.

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of Nuclear Weapons (adopted by Decree of the Council of Ministers No 210 of 6 August 2004, promulgated in the State Gazette No 74 of 24 August 2004)¹¹⁴

According to Article 126 of the Act of 2002, the Regulation specifies the conditions and procedure for gathering and submitting of information and keeping records of the activities subject to the Agreement between Bulgaria and the IAEA for applying the guarantees related to the Non-proliferation of Nuclear Weapons Contract and the Additional Protocol to the Contract.

According to the provisions of the Act of 2002, the entities carrying out activities subject to the Agreement and the Additional Protocol, develop and apply internal rules and instructions for registration and Control of the type, quantity, location and movement of the nuclear material and its transportation. They present to the Chairman of the NRA the information necessary to comply with the obligations of the Republic of Bulgaria, due to these international contracts and grant access to the sites to the IAEA inspectors, and the NRA inspectors accompanying them, in accordance with the provisions of the Act of 2002.

17. Regulation on the terms and procedure for exemption of small quantities of nuclear material from the application of the Vienna convention on civil liability for nuclear damage (Promulgated in the State Gazette No 72 of 17 August 2004)¹¹⁵

According to the Vienna convention on civil liability for nuclear damage the operator of a nuclear facility is responsible for nuclear damage caused by a nuclear accident and is obliged to maintain an insurance or other financial guarantee, covering his liability.

Every agreeing country has the right to exempt small amounts of nuclear material from the application of the convention, up to a maximum limits defined by the managing board of the IAEA. According to Article 135 of the Act of 2002 the Council of Ministers is delegated the authority to accept a Regulation, in which the terms and procedure for exemption of small quantities of nuclear material from the application of the Vienna convention to be determined.

¹¹⁴ According to paragraph 8 of the Transitional and Final provisions of the Regulation it is adopted on the basis of Article 126 of the Act of 2002.

¹¹⁵ According to paragraph 2 of the Final provisions of the Regulation it is adopted on the basis of Article 135 of the Act of 2002.

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The Regulation was developed in accordance with the decision of the managing board of the IAEA dated 14-15 September 1978 for establishing the maximum limits for exempting small amounts of nuclear material from the application of the Vienna convention and with the IAEA safety standards for transportation of nuclear materials.

18. **Regulation on the procedure for payment of the fees collected pursuant to the Act on the Safe Use of Nuclear Energy** (Enclosure No 1 to Article 1 of Decree of the Council of Ministers No 206 of 17 September 2003, promulgated in the State Gazette No 85 of 26 September 2003)¹¹⁶

The Regulation determines the procedure for paying the fees for consideration of applications and for issuing of licenses and permits for activities, in accordance with the provisions of the Act of 2002.

19. **Regulation on emergency planning and preparedness in cases of nuclear or radiation accidents** (adopted by Decree of the Council of Ministers No 313 of 22 November 2011, promulgated in the State Gazette No 94 of 29 November 2011, in force as of 29 November 2011)¹¹⁷

It was adopted pursuant to the latest amendments in the Act of 2002 as well as pursuant to recent recommendations by IAEA and EU in the area of emergency planning and preparedness in cases of nuclear or radiation accidents.

The further adoption by the NRA and the Ministry of the Interior of guidelines, methodologies and other documents is envisaged in implementation of the provisions of that Regulation.

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¹¹⁶ According to paragraph 1 of the Final provision of the Regulation it is adopted on the basis of Article 31, Paragraph 1 of the Act of 2002.

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АНАЛИЗ НА ЯДРЕНОТО ПРАВО В БЪЛГАРИЯ

РЕЗЮМЕ

Р. Владимиров, К. Йочева

Статията разглежда състоянието на правната уредба в областта на ядрената енергетика към края на 2011 г. В структурата на производството на енергия производството от ядрени централи е на второ място (с дял от 32, 6 % от вътрешното производство на енергия) след производството на енергия от въглища (42, 9 % от вътрешното производство на енергия).

В изследването се разглеждат последователно въпросите и уредбата относно настоящото положение на и перспективите пред ядрените централи в България, законодателната рамка за ядрени проекти, мерките за насърчаване на развитието на ядрената енергетика в България, както и релевантните свързани с екологични съображения мерки, политиката за безопасност, уредбата за третирането на ядрени отпадъци, както и за стандартите за безопасност за централите и за производствения процес. Място в анализа се отделя и на правната уредба относно извеждането от експлоатация на ядрените площадки в България.