



OVERVIEW OF THE PRESENT SITUATION WITH NORM REGULATION IN BULGARIA

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NOVIHANA



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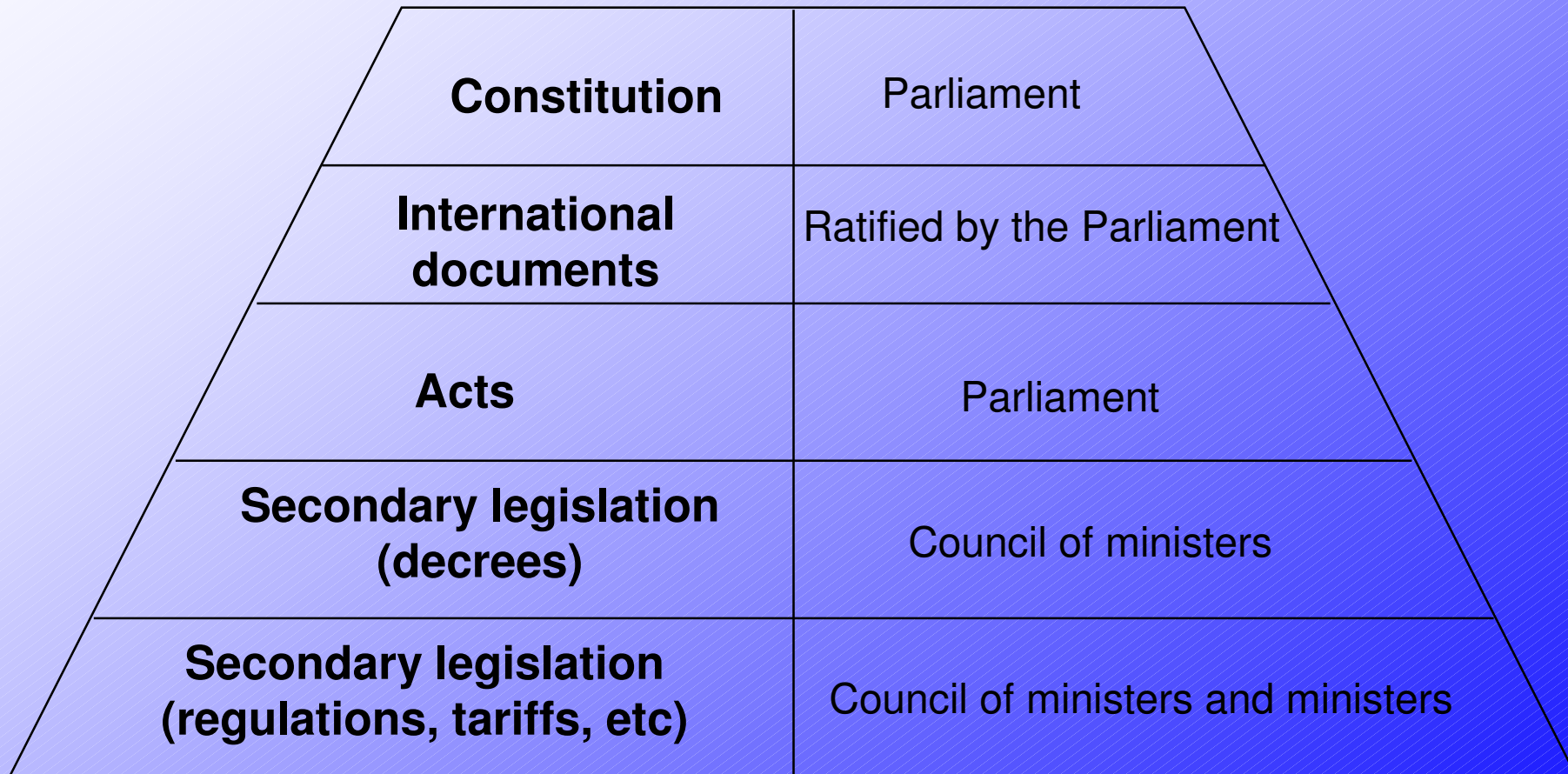
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BULGARIAN NUCLEAR REGULATORY AGENCY

General Remarks





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Regulatory Infrastructure Legislation

**The basic document is the ACT ON THE SAFE USE OF
NUCLEAR ENERGY (ASUNE) - 2002.**

This Act defines the State regulation of the safe use of nuclear energy and ionising radiation and of the safety management of radioactive waste and spent fuel.

The Act specifies the rights and obligations of the licensees in conducting activities with nuclear energy and SIR, in order to ensure nuclear safety and radiation protection.



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Regulatory Infrastructure Legislation(cont.)

The main chapters of the ASUNE deal with:

- **state regulation;**
- **authorization process;**
- **regulatory control;**
- **management of radioactive waste and spent fuel;**
- **physical protection;**
- **emergency planning and preparedness;**
- **administrative penalty provisions.**



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National Regulatory Infrastructure

Legislation (cont.)

Other acts related to the radiation protection:

- **Act on the health;**
- **Act on the Protection of the Environment;**
- **Regulations for implementation of this acts;**
- **Other specific acts, regulations and instructions.**

The legislation in the field of radiation protection and safety of SIR includes more than 50 documents - acts, regulations and instructions.



BULGARIAN NUCLEAR REGULATORY AGENCY

National Regulatory Infrastructure

Regulatory Body

- **Nuclear Regulatory Agency (NRA)** performs regulatory control of the activities using nuclear energy and ionising radiation and the management of radioactive waste and spent nuclear fuel.
- **NRA is an independent regulatory body.** Its Chairman is designated by a decision of the Council of Ministers and appointed by the Prime Minister.
- **NRA is provided with:**
 - **financial and material resources;**
 - **qualified and experienced personnel.**



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National Regulatory Infrastructure

Regulatory Body

The activities under NRA control are:

- **operation of nuclear facilities and facilities of RAW management;**
- **use and storage of SIR (including generators of ionizing radiation);**
- **site selection, construction, commissioning and decommissioning of nuclear facilities and facilities with SIR import and export of radioactive sources and generators of ionizing radiation;**
- **transport of nuclear material and radioactive sources;**
- **work with radioactive sources and generators of ionizing radiation for maintenance and services.**



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National Regulatory Infrastructure Other Authorities

- **Ministry of Health (MH)** performs specialised control of the professional exposure and the exposure of the population, carries out medical surveillance of the personnel and monitoring of the workplaces.
- **Ministry of Agriculture and Forests (MAF)** manages the control of the radioactivity content of the agricultural products.
- **Ministry of Interior (MI)** is in charge of the control over the physical protection of the nuclear facilities and facilities with SIR and storage of radioactive sources.
- **GD “National Service for Civil Protection”** is responsible for the emergency planning and response activities and maintains emergency preparedness.



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National Regulatory Infrastructure REGULATIONS

The basic requirements for activities with SIR are specified in several special regulations:

- **Regulation on Basic Norms of Radiation Protection (BNRP);**
- **Regulation on radiation protection during activities with sources of ionising radiation (SIR);**
- **Regulation on the procedure for issuing licenses and permits for safe use of nuclear energy.**

The work activities with NORM/TENORM are partly involved only in Regulation on BNRP.



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Regulation on basic norms of radiation protection (1)

1. Subject of the Regulation:

- **radiation protection in case of carrying out activities utilizing nuclear energy and sources of ionizing radiation (SIR);**

- **2. The requirements of the Regulation shall also apply to activities, where the presence of natural radiation sources leads to an increase in the exposure of workers and members of the public.**

3. This Regulation shall not apply to exposure of persons caused by:

- **cosmic radiation prevailing at ground level;**
- **potassium-40 content in human body;**
- **radionuclides content in different materials undisturbed by human activity.**



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Regulation on basic norms of radiation protection (2)

The Regulation sets some fundamental rules in RP:

- **Practices need justification;**
- **Doses should be kept as low, as reasonably achievable (ALARA);**
- **Within the licensing regime dose constraints may be applied;**
- **Limitation on the sum of the doses from all relevant practices.**



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Regulation on basic norms of radiation protection (3)

The Regulation sets limits for the effective doses:

- **for workers : 100mSv for 5 consecutive years; maximum 50 mSv per year; special limits for organ doses;**
- **for population 1 mSv per year; for at least as average in 5 consecutive years; special limits for organ doses;**

And sets the responsibilities:

- **“the holder of a license/the undertaking is responsible for the radiation protection.**



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Regulation on basic norms of radiation protection (4)

Article 39 (1) The Minister of Health shall determine in an order the work activities, where the exposure to natural sources cannot be disregarded from the radiation protection point of view, such as: work in spa resorts, underground and overhead sites, caves, flights with aircraft, work with or storage of materials and wastes with increased content of natural radionuclides, causing substantial increase in exposure of members of the public or workers.

(2) For the activities under paragraph 1 the Minister of Health prescribes the necessary measures of radiation protection and decrease of the exposure.



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Present Situation With NORM Regulation - ASUNE (1)

- ASUNE defines the role of BNRA as Regulatory Body as well as the duties of Ministries and other national institutions concerning RP.
- ASUNE contains fundamental terms, principles and norms regarding RP in Bulgaria. However, the system established by this Act does not involve in explicit way Title VII of Directive 96/29/Euratom.
- The term “use of ionising radiation” related to practical activities, where radionuclides are processed for their radioactive, fissile or fertile properties is not applicable to NORM/TENORM.
- It is assumed that any processes with NORM/TENORM do not match the term “use of sources of ionising radiation”.



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Present Situation With NORM Regulation ASUNE (2)

- **The postulated with the Act “rights and duties of licensees to ensure RP” may be match the sectors, where NORM/TENORM occur. This could be a basis for developing NORM/TENORM regulations from the existing Act.**
- **Because of the definition for “radioactive source”, it makes no difference between natural and artificial radionuclides. Therefore, the general rules and provisions contained in ASUNE must be taken into account if a new NORM/TENORM regulation is developed.**
- **New terms and a supplementary system of control have to be established for NORM/TENORM.**



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Present Situation With NORM Regulation BNRP

- **The duties of the Ministry of Health are explicitly enlarged upon the NORM/TENORM work activities,**
- **The management of residues with enhanced TENROM content remains not regulated,**
- **No actions have been undertaken up to now based on of Art. 39 of BNRP,**
- **This text is not enough to establish a regulatory frame for NORM/TENORM work activities.**



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Present Situation With NORM Regulation

Conclusion

There is a complete gap in the legislation at law level ASUNE, Act on the Health, etc.

Some aspects of the medical control of exposure of workers with NORM are partly covered in BNRP, but positive list has not been established up to now.



BULGARIAN NUCLEAR REGULATORY AGENCY

Development of Bulgarian regulations in the field of NORM and TENORM PHARE BG 2006/ 018-411.01.04

The aims of the Project:

- **Developing of specific Regulation in the field of NORM/TENORM, taking into account the existing national legislation, IAEA and EU recommendations and the international “good practices”;**
- **Elaboration of “Positive list” for the specific work activities, which could impact radiologically the workers, members of the public and/or environment due to presence of NORM/TENORM;**
- **Developing of a procedure for implementation of the concepts for exclusion and exemption for NORM/TENORM;**
- **Establishing basis for the regulatory control of NORM/TENORM;**
- **Developing of effective coordination between the responsible authorities and training the regulatory personnel.**



BULGARIAN NUCLEAR REGULATORY AGENCY

Development of Bulgarian regulations in the field of NORM and TENORM PHARE BG 2006/ 018-411.01.04

The Tasks of the Project:

Task 1: Conduction of a comprehensive study covering the assessment of the current situation of the facilities using and/or producing NORM or TENORM.

- **Task 1.1.: Preliminary inventory of the activities and sites in Bulgaria, where problems with NORM/TENORM could occur;**
- **Task 1.2.: Assessment of the radiological situation in representative number of industrial sites.**

Task 2: Developing of specific Regulation in the field of NORM/TENORM.

- **Task 2.1.: Revision of the existing legislation;**
- **Task 2.2.: Comparison between the present legislation and the one in EU Member States, estimation of the gaps and discrepancies;**
- **Task 2.3.: Elaboration of “Positive list” for the NORM/TENORM activities in Bulgaria;**
- **Task 2.4.: Enhancement of the Bulgarian legislation in the field of NORM/TENORM.**



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**Development of Bulgarian regulations in the field of NORM and TENORM
PHARE BG 2006/ 018-411.01.04**

Task 3: Improvement of the inspection practices of BNRA and the other authorities, related with NORM/TENORM.

- **Task 3.1.: Training of the personnel in potential exposure assesment due to using of NORM/TENORM in different industrial sites and due to presence of NORM/TENORM in industrial/trade products and environment;**
- **Task 3.2.: Traininig of the personnel in the activities with NORM, inspections and regulatory control, discovering of NORM, decontamination from NORM.**



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Future amendments in the legislative basis

- Title VII of Directive 96/29/Euratom at law level;
- Changes in ASUNE are prepared;
- Work activities with MORM/TENORM obliged to regulatory control;
- The activities, regulatory grad and corresponding radiation protection measures are specified in a separate regulation;
- This regulation was elaborated in the frame of above mentioned project and will be adopted after the changes in ASUNE.



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CONCLUSIONS

One year ago:

- Nearly completely gap in bulgarian legislation concerning NORM/TENORM;
- Our readiness for changes war very low.

Now:

- Changes in ASUNE are prepared and approval prcedure is started;
- Work activities with MORM/TENORM obliged to regulatory control;
- The regulation draft is ready;
- Thanks to consotrium HGN – IAF Radiooekologie - WISUTEC.



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Welcome to NRA site – АЯР

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Welcome to NRA site

Our major priority is to guarantee the nuclear safety and radiation protection.

The basic principles in our control functions are independence, justified manner of work and open dialogue with all interested individuals and organizations.

Our assuredness is that the public access to safety information strengthens the public confidence in the nuclear industry and the regulatory body.

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News

- 16th Annual Meeting of the Forum of the State Nuclear Safety Authorities of the Countries Operating WWER
06.07.2009
- 9th meeting of the European Nuclear Safety Regulators Group
06.07.2009
- Mr. Philippe Jamet Director of the Division of Nuclear Installation Safety of the Department of Safety and Security, IAEA will visit Bulgaria
25.06.2009

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Events

- Events in nuclear facilities
- Events with radioactive sources

Done

