

# **IMPLEMENTATION OF THE CPPNM AND ITS AMENDMENT IN BULGARIA — PRACTICES AND CHALLENGES**

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**Ivan Gorinov,  
Head, Division of Nuclear Material and Physical Protection,  
Nuclear Regulatory Agency, BULGARIA**

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**BULGARIAN NUCLEAR PROGRAMME**

**HISTORY OF CPPNM IN BULGARIA**

**LEGISLATIVE AND REGULATORY FRAMEWORK**

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- IRT-2000 research reactor, 1961
  - since 1989 in extended shutdown state, to be decommissioned
- Six power reactors on Kozloduy NPP site
  - Units 1-2, 440 MW, 1974 - 1975 (shutdown in 2002, under decommissioning)
  - Units 3-4, 440 MW, 1980 - 1982 (shutdown in 2006, under decommissioning)
  - Unit 5, 1000 MW, 1987 (in operation)
  - Unit 6, 1000 MW, 1991 (in operation)
- Wet Spent Fuel Storage Facility, 1991
- Dry Spent Fuel Storage Facility, 2016

## BULGARIA AND CPPNM

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- Bulgaria ratified the CPPNM in 1984
- In 2005 signed the Amendment to the CPPNM
- In 2006 the Parliament ratified the Amendment
- The instrument of acceptance deposited in the IAEA on 17 March 2006
- The process of reviewing and amending of national legislation started immediately and finished in 2015 , so by 8 May 2016 the Bulgarian laws and regulations were compliant with the Amendment.

# LEGISLATION

## Constitution

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- Any international treaty, which has been ratified, promulgated, and entered into force, shall be part of the domestic law. Any such treaty shall take priority over any conflicting standards of domestic legislation. (Art. 5, p.4)
- Following the above provision the CPPNM and its Amendment are fully enforced in Bulgaria.

# LEGISLATION

## Act on the Safe Use of Nuclear Energy

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- The physical protection of NM and NFs shall be ensured according to the requirements of the CPPNM
- **In 2010 the Act has been amended in order to be compliant with the Amended CPPNM**
- The term “physical protection” has been added to the terms “nuclear safety” and “radiation protection” in many places in the Law in the context of state regulation and control, which assures the implementation of the following Fundamental Principles described in the Article 2A of the Amended CPPNM:
  - FUNDAMENTAL PRINCIPLE A: Responsibility of the State;
  - FUNDAMENTAL PRINCIPLE B: Responsibilities During International Transport;
  - FUNDAMENTAL PRINCIPLE C: Legislative and Regulatory Framework;
  - FUNDAMENTAL PRINCIPLE D: Competent Authority;

# LEGISLATION

## Act on the Safe Use of Nuclear Energy

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- The NRA has been defined as a “Competent Authority” under the meaning of the Amended CPPNM;
- The NRA Chairperson performs the functions of a central authority, point of contact and coordinator for implementation of the obligations under the CPPNM;
- The Chapter 7 “Physical Protection” has been fully redesigned in order to implement the Fundamental Principle G: “Threat”;
- The law provides for that the PPS, shall be designed and the effectiveness thereof shall be evaluated in accordance with the design basis threat;
- The law provides for that the physical protection of nuclear facilities and nuclear material shall be ensured by the licensees (Fundamental Principle E: “Responsibility of the License Holders”);
- Some definitions in the field of physical protection have been updated to be consistent with CPPNM definitions.

# REGULATORY FRAMEWORK

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## Regulation on Physical Protection of Nuclear Facilities, Nuclear Material and Radioactive Substances

*(Adopted in 2015)*

- The requirements established by the Regulation are in compliance with the IAEA NSS-13/ INFCIRC/225/Rev.5 “Nuclear Security Recommendations on Physical protection of Nuclear Material and Nuclear Facilities”
- The Regulation categorises the nuclear material according to the Annex II of the CPPNM



## Regulation on Physical Protection of Nuclear Facilities, Nuclear Material and Radioactive Substances

*(Adopted in 2015)*

- The Regulation provides for the application of the following Fundamental Principles described in the Article 2A of the Amended CPPNM:
  - FUNDAMENTAL PRINCIPLE E: Responsibility of the License Holders
  - FUNDAMENTAL PRINCIPLE F: Security Culture
  - FUNDAMENTAL PRINCIPLE G: Threat
  - FUNDAMENTAL PRINCIPLE H: Graded Approach
  - FUNDAMENTAL PRINCIPLE I: Defence in Depth
  - FUNDAMENTAL PRINCIPLE J: Quality Assurance
  - FUNDAMENTAL PRINCIPLE K: Contingency Plans
  - FUNDAMENTAL PRINCIPLE L: Confidentiality

## CHALLENGES

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- The CPPNM and its Amendment has two different types of provisions:
  - Those addressing technical issues (physical protection)
  - Those addressing criminalization and related matters
- These two worlds usually have problems in communication 😊
- The Bulgarian Penal Code still needs modifications to meet the requirements of CPPNM and its Amendment
- All provisions under Article 7 has been reflected except:
  - (b) a theft or robbery of nuclear material; and
  - (c) an embezzlement or fraudulent obtaining of nuclear material;

# CHALLENGES

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Do we still need the “self-protection concept” described in categorization table - footnote e) of the Annex II of the ACPPNM

**THANK YOU FOR YOUR ATTENTION !**