BULGARIA EXPERIENCE
WITH REGULATORY PEER REVIEW SERVICES

Yuliya Dimitrova – Executive secretary, Bulgarian Nuclear Regulatory Agency
Nuclear Regulatory Agency

- established 2002
- successor of Committee on the use of atomic energy for peaceful purposes
- regulatory functions for all facilities and activities
- reports to the Government

Ministry of Health

- regulatory tasks for medical applications and exposure of workers and the public
NUCLEAR LEGISLATION

Nuclear Act

- Act on the Safe Use of Nuclear Energy
  - Adopted 2002
  - Amended and supplemented 2010

Regulations

- 22 Regulations on implementation of the Nuclear Act, issued by the Government on a motion of the BNRA Chairman
- Developed in-between 2002-2005, now in revision

Regulatory guides

- Give advice on compliance with the legal requirements
- Issued by the BNRA Chairman
**HUMAN RESOURCES**

- **Staff**
  - 114 positions
  - 100 occupied

**Distribution of the staff**

- Management: 18%
- Experts: 69%
- Support functions: 13%

**Age Profile**

- up to 29: 38%
- 30-44: 38%
- 45-59: 22%
- above 60: 2%

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GNSSN Plenary meeting, 28 September 2016, 60th General Conference, IAEA
NUCLEAR FACILITIES in BULGARIA

- 6 nuclear facilities in operation,
- 1 nuclear facility in extended shut down condition
- 4 nuclear facilities in decommissioning
- 2 nuclear facilities at different building stages
At the end of 2015
Licensees - 1257

Sites with SIR - 1582

- Industrial applications: 75%
- Medical applications: 11%
- Scientific purposes (research, education, agriculture): 8%
- Other applications: 6%
REVIEWS of NUCLEAR REGULATORY FRAMEWORK

• IRRT Mission – November 1997

• IRRT Mission – June 2003

• IRRS Mission – April 2013

• IRRS follow-up mission – April 2016

• IRRS missions – mandatory at least once every 10 years according to EURATOM Nuclear Safety Directive
IRRS MISSION, 2013 - SCOPE

- Module 1 Responsibilities and functions of the Government
- Module 2 Global safety regime
- Module 3 Responsibilities and functions of the Regulatory Body
- Module 4 Management system
- Module 5 Authorization
- Module 6 Review and assessment
- Module 7 Inspection
- Module 8 Enforcement
- Module 9 Regulations and guides
- Module 10 Emergency preparedness
- Module 11 Additional areas:
  - Control of medical exposures
  - Control of discharges and materials for clearance
  - Occupational radiation protection
- Module 12 Interface with nuclear security
- Module 13 Regulatory implications of the Fukushima accident
IRRS MISSION, 2013

• Preparatory activities:
  ✓ Steering Group – established December 2009
  ✓ SAT Training – April 2010
  ✓ Self Assessment activities – started in August 2012
  ✓ IRRS preparatory meeting – September 2012
  ✓ Self Assessment Findings – December 2012
  ✓ Self Assessment Action Plan – January 2013 – 29 measures, 10 of which implemented before the mission
  ✓ Advance reference materials

• Staff engagement
  ✓ 42% of the staff on expert positions

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IRRS MISSION, April 2013

- IRRS Mission 8-19 April 2013

- IRRS Team – 25 members (16 experts from IAEA Member States; 2 observers; 7 IAEA staff)

- BNRA Team – 18 members (22.5% of the expert staff)

- IRRS Mission conclusions
  16 recommendations, 34 suggestions and 9 good practices
FOLLOW-UP MISSION 2016

- **Action plan from September 2013 regularly reviewed and amended**
  - Last version from February 2015
  - 46 measures to address the recommendations and suggestions
  - All recommendations and suggestions are addressed
- **Staff engagement**
  - 20% of the staff was fully involved in the preparation of the follow-up
FOLLOW-UP MISSION 2016

Results from the FU IRRS Mission

- 15 recommendations
  - Closed -7
  - Closed on the basis of progress – 7
  - Open - 1
- 34 suggestions
  - Closed -22
  - Closed on the basis of progress –11
  - Open – 1

- Staff engagement -20% of the staff
• Preparation for IRRS:
  ✓ Self-assessment - useful, but time- and resource-consuming – more targeted questions in the self assessment tool (SARIS) would be useful;
  ✓ preparation of advance reference materials – generation of ARM within SARIS would be useful

• IRRS Mission conclusions:
  ✓ Objective and fair review of regulatory framework
  ✓ Conclusions based on experts’ national experience should be avoided
  ✓ Continuous training of IRRS experts under IAEA program is crucial
IRRS ADDED VALUE

• in-depth self-assessment in the respective areas;

• an independent and objective review of NRA current status and practices;

• highlighted deficiencies and identified areas for improvement;

• advice on possible solutions;

• possibility for NRA staff to discuss with experienced experts.
Thank you for your attention!