

**FEDERAL ENVIRONMENTAL, INDUSTRIAL AND NUCLEAR  
SUPERVISION SERVICE OF RUSSIA  
(ROSTECHNADZOR)**



# **Steps to Improve Nuclear Safety Regulation in the Russian Federation: from Fukushima to the Future**

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**International Conference on Effective Nuclear Regulatory Systems:  
Transforming Experience into Regulatory Improvements  
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## Lesson 1

**Need in safety re-analysis of nuclear facilities in case of emergencies caused by natural disasters**



## Lesson 1

- March-April 2011 – inspections of degree of protection of Russian NPPs from external effects conducted by the Russian operator and regulator independently of each other
- June 2011 – requirements to stress tests of operating Russian NPPs developed by the regulator
- August 2011 – stress tests of operating Russian NPPS completed
- November 2011 - reports on stress tests reviewed

**Principal conclusion: operating Russian NPPs meet established national safety requirements**

- March 2012 – “Updated Measures to Mitigate Consequences of Beyond-Design Basis Accidents at NPPs” developed by the operator and approved by Rostechнадзор



## Lesson 1

- February 2013 - additional analysis of degree of protection of Russian NPPs under construction from extreme external impacts and development of relevant safety improvement plans completed by the operator

### **Design documentation of NPPs under construction revised and updated**

- February 2013 - stress tests of 7 most powerful and potentially hazardous nuclear research installations performed; relevant reports reviewed and discussed

### **Decision to develop NRI safety improvement plan**

### **Stress tests of other NRI to be conducted by May 2013**



## Lesson 1

# Exchange of information on NPPs stress tests results with foreign partners

Two bilateral events in 2012 with French and Finnish regulators

- 11-12 July 2012, Moscow: Rostechнадзор – ASN Workshop with participation of Russian and French operators
- 21-22 November 2012, Helsinki: Rostechнадзор – STUK Workshop



## Lesson 2

**Need in establishing additional  
regulatory requirements**



## Lesson 2

- April-May 2011 – review and analysis of international legal basis
- June 2011 – Russian Federation submitted its proposals for amending Convention on Nuclear Safety and Convention on Early Notification of a Nuclear Accident to IAEA
- August 2012 – establishment of the ‘effectiveness and transparency’ working group open to all CNS Contracting Parties



## Lesson 2

- Analysis and updating of the Russian legislation to improve effectiveness of the regulatory activities

**Relevant amendments to the Federal Law “On the Use of Atomic Energy”**

**Subsequent Decrees of the Russian Government related to development and approval of federal rules and standards, changes in licensing of nuclear activities, procedure for state safety supervision of nuclear facilities**

- Analysis of the national standards and rules in the field of atomic energy use

**List of main regulatory documents to be developed or revised (updated)**

**Additional requirements to consideration of combinations of external impacts during siting, requirements to special guidance on beyond design basis and severe accident management, and additional requirements to the content of the safety analysis reports**



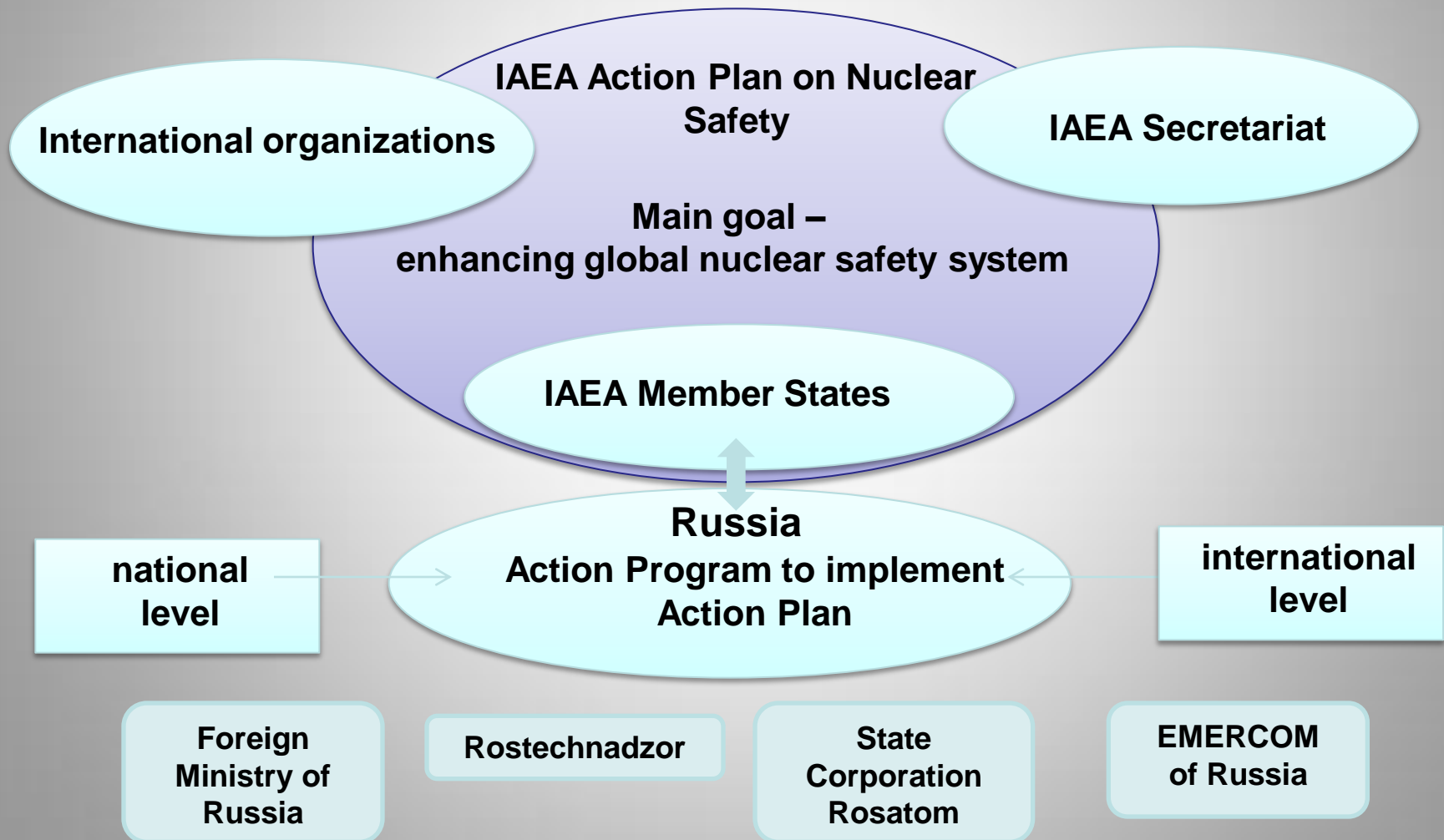


## Lesson 3

# Cooperation of stakeholders at international and national levels



## Implementation of IAEA Action Plan on Nuclear Safety in Russia





## Lesson 3

- Effectiveness improvement of interaction of Rostechнадzor with other Russian safety regulatory authorities in the use of atomic energy
- Transparency and openness of regulatory activities  
Mandatory publication of draft federal standards and rules in the field of atomic energy use followed by consideration and discussion of comments and proposals received

Rostechнадzor's Public Council



## Lesson 3

# IAEA IRRS Follow-up Mission

- planned for the end of 2013
- analysis of implementation of recommendations of IAEA IRRS mission conducted in Russia in November 2009
- 2 additional modules: “Regulatory implications of the Fukushima accident” and “Emergency preparedness and response”



## Lesson 3

# Assistance in development of national regulatory infrastructure to the countries planning to construct Russian design NPPs (e.g. Vietnam, Belarus, Turkey)

- Analysis of existing legal and regulatory basis and development of safety regulations
- Training of personnel
- Consultative support on licensing issues including safety reviews



**Lessons learnt convinced us once again of the need for open and timely sharing of experience, knowledge and information giving top priority to safety**



*Thank you for your attention!*