JSC VO "Safety" support to Rostechnadzor in assisting embarking countries on their technical and scientific capability development

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## **ABOUT VO SAFETY**

**EMBARKING COUNTRIES NEEDS** 

**INSPECTORS TRAINING PROGRAM** 

**COMPREHENSIVE MODULAR TRAINING PROGRAM** 

CONCLUSION

Established by the Order of Gosatomnadzor (predecessor of Rostechnadzor) № 96 of September, 08, 1993

Established to provide services in safety assurance of nuclear facilities in Russia and abroad

Assisting embarking countries on their technical and scientific capacity building since the establishment

#### **Embarking countries Assistance Goals**

•Establishment of independent, competent, adequately staffed with qualified personnel and technically sound National RB;

•Establishment of open and transparent Regulatory System with a clear division of responsibilities and rights between Stakeholders;

•Establishment of regular co-operation between National RB and Vendor country' Regulator (exchange of good practices, transfer of experience and knowledge pertaining to regulation of VVER-type reactors);

•Provision of full-scale technical assistance and training during National RB' development stage.



Bushehr NPP (Iran)

Tianwan NPP (China)

Kudankulam NPP (India)

Akkuyu NPP (Turkey)

Belarus NPP (Belarus)

Rooppur NPP (Bangladesh)



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# **EMBARKING COUNTRIES NEEDS**

# GOAL

## Para 1.1, GS-G-1.1

The achievement and maintenance of a high level of safety in the siting, design, construction, commissioning, operation and decommissioning of nuclear facilities, and in the closure of waste disposal facilities, requires a sound legal and governmental infrastructure. An appropriately organized and staffed independent regulatory body with well defined responsibilities and functions and access to adequate resources is a key element of such an infrastructure.

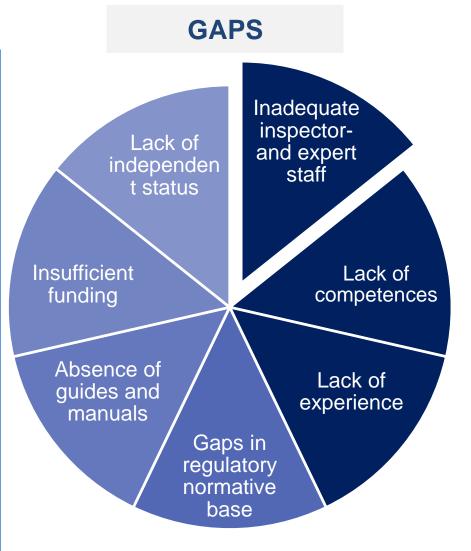


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## Factual material is getting outdated practically on a day-to-day basis

 Taking into account dynamics of the process (adding inspection experience), which envisages new facilities, introduction of new regulatory documents, new facts of the facility's behaviour during operation, it is required to constantly update training material.

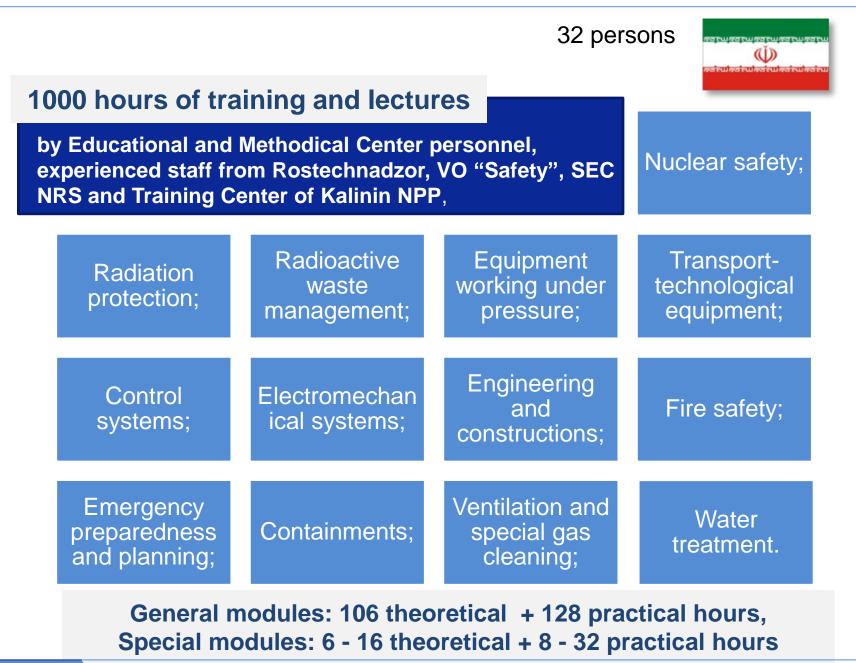
#### Language barrier

- Translated training material cannot convey the depth of experience, that the specialist, preparing training materials, possesses
- Much time is spent on mastering and understanding of specific terms used by the Russian-speaking specialists in the process of control, operation, pre-commissioning activities, prophylaxis, maintenance.

## Individual approach

 Judging from the training experience, the best possible option is to have 3-5 trainees in the group

## 2013, inspectors training for the INRA personnel





 ✓ IAEA Safety Series SSG-16 (Establishing the Safety Infrastructure for a Nuclear Power Programme);
✓ IAEA Milestones in the Development of a National Infrastructure for Nuclear Power (NG-G-3.1);
✓ IAEA Recommendations on capacity building for safe, secure and sustainable nuclear power programmes;
✓ Rostechnadzor' practical experience at Russian NPPs' nuclear and radiation safety regulation

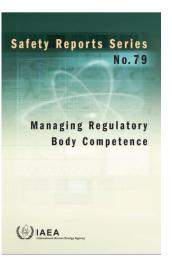
The Program's topics cover a relevant types of activities of all life cycle stages of the different nuclear facilities as follows:

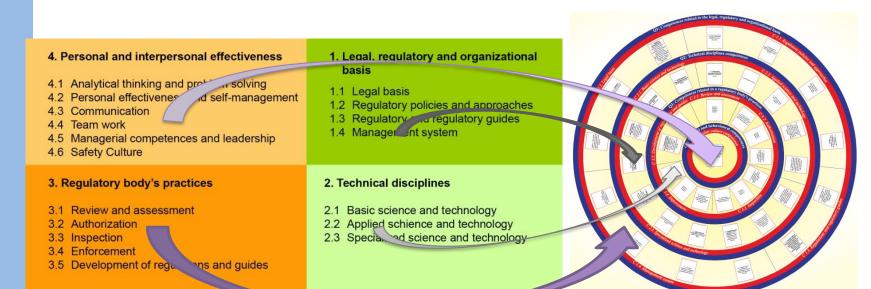
- NPPs with VVER-type reactors;
- nuclear research installations;
- radiation sources;
- mobile reactor installations, including floating ones;
- nuclear fuel cycle facilities related to spent nuclear fuel and radioactive waste management at NPP.

# IAEA Safety Report No. 79

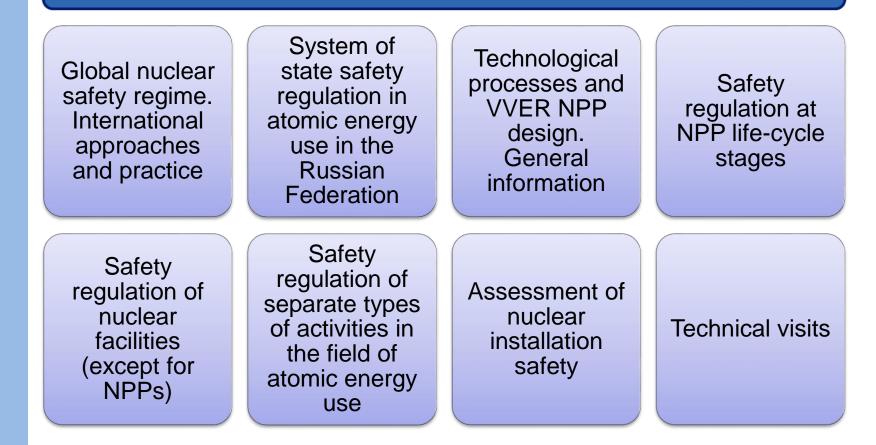
"Managing Regulatory Body Competence":

### Quadrant model of competences for regulatory bodies





# COMPREHENSIVE MODULAR PROGRAM



This program is to be launched for new customers of JSC "VO "Safety" such as BAERA and ENRRA.

#### CONCLUSIONS

For decades JSC VO "Safety" has supported Rostechnadzor in assisting embarking countries in capacity building. In particular, it has been successfully providing full-scale technical assistance and training during National Regulatory Body' development stage

There are two training programs provided by VO "Safety":

 a training program developed specially for the INRA, which is more technically specific and directed to the practical competences of inspectors.
the Comprehensive Modular Program, which covers a full-scale range of regulatory competences and activities for different nuclear facilities, but it is contains more theoretical hours than practical.

<u>In the future</u>: it is planned to perform actualization of the first program and its further integration into the second one.

# THANK YOU FOR YOUR ATTENTION

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