



Expectation from the Asia and Europe cooperation in strengthening nuclear safety

Sigitas Šlepavičius
Deputy Head for Nuclear Safety
State Nuclear Power Safety Inspectorate (VATESI)
Lithuania

*ASIA-EUROPE MEETING (ASEM) SEMINAR ON NUCLEAR SAFETY "EFFECTIVENESS, TRANSPARENCY AND SUSTAINABILITY ELEMENTS OF NUCLEAR SAFETY"
YOGYAKARTA, 4-6 NOVEMBER 2014*

- Lithuanian Nuclear Program
- Nuclear safety regulator - VATESI
- International cooperation possibilities:
 - Bilateral
 - MDEP
 - WENRA
 - International Peer Reviews
- Conclusions

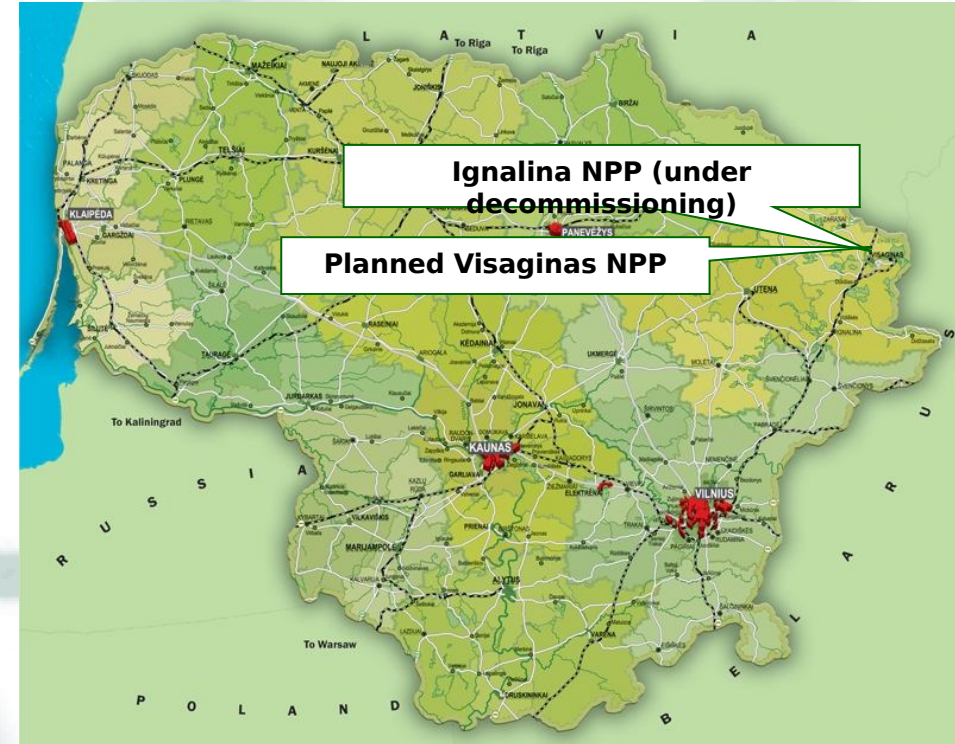
NUCLEAR PROGRAM

- **Ignalina NPP (under decommissioning):**

- Unit 1 (RBMK-1500) operation 1983-2004
- Unit 2 (RBMK-1500) operation 1987-2009

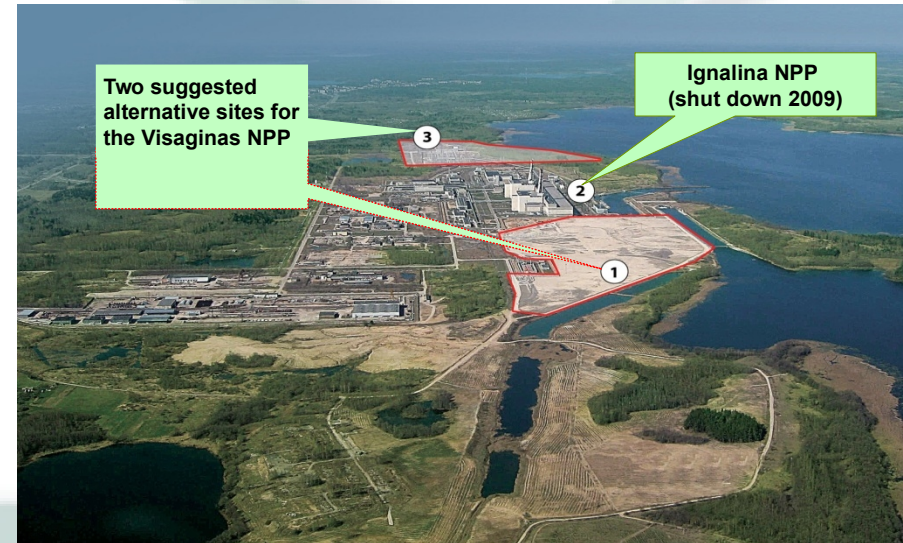
- **Spent fuel:**

- Existing spent nuclear fuel storage facility (~1/4 of INPP inventory)
- Construction of new spent nuclear fuel storage facility (project B1; ~3/4 of INPP inventory)



VISAGINAS NPP UP-TO-DATE

- **March 2014** - Lithuanian political parliamentary parties by signing Agreement on Strategic Guidelines committed to provide necessary political support and pursue the development of Visaginas NPP project
- The Government of Lithuania referring to the Joint Position of Potential investors on economic viability of the project took actions in order to resolve remaining project Outstanding Issues. Special Governmental Commission was formed which prepared and submitted proposals for Regional Partners
- Moving forward with the Project, on 30 July 2014 a Memorandum of Understanding between the Ministry of Energy of the Republic of Lithuania and strategic investor Hitachi Ltd. was signed stating the intention to proceed with the establishment of interim project company organization (iPCO) in the nearest future
- **30 October 2014** - New NPP site assessment report was agreed by VATESI



NUCLEAR SAFETY REGULATOR - VATESI

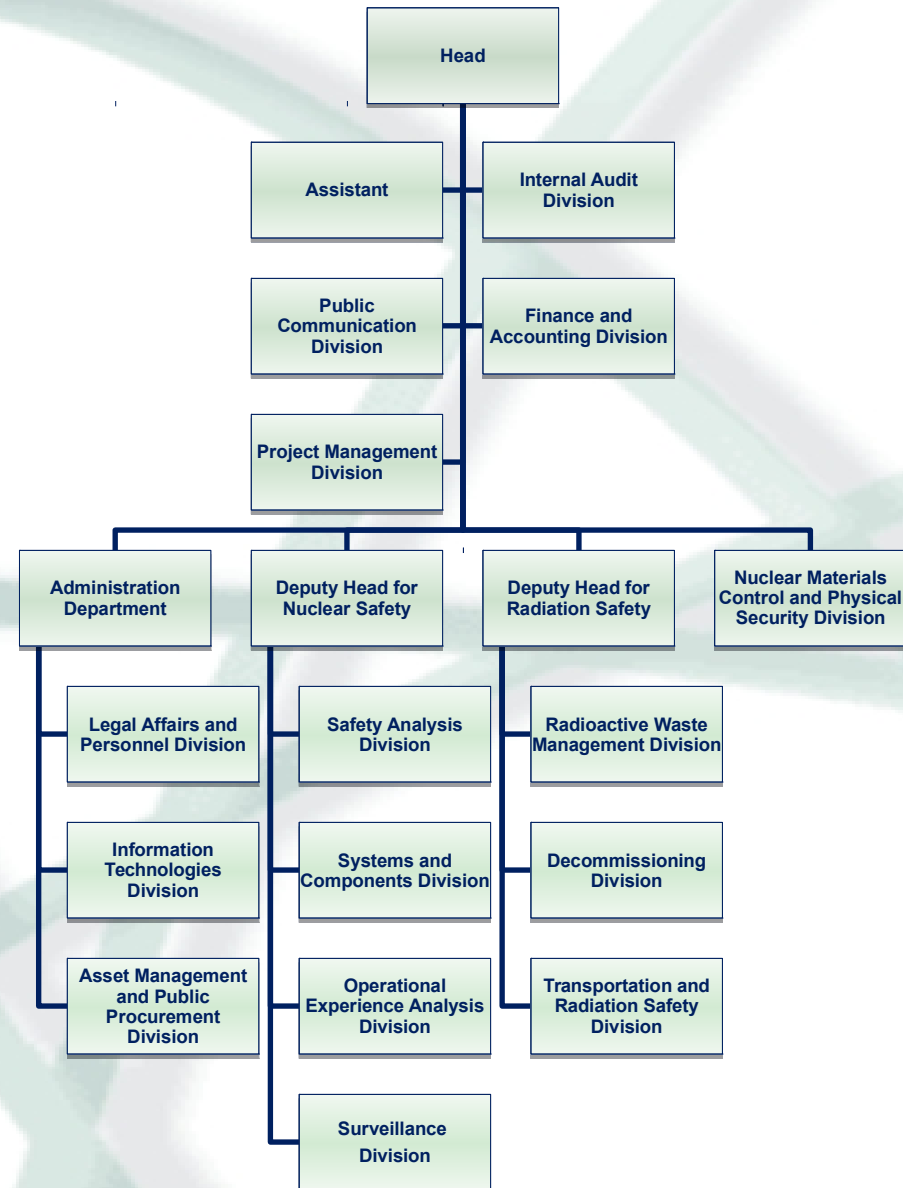


- VATESI was established in 1991
- Directly subordinated to the President and Government
- Head of VATESI appointed by President
- **VATESI staff – 75 positions**

Mandate

- State regulation and supervision of nuclear and radiation safety in Nuclear Facilities
- State control of safeguards implementation
- State regulation and supervision of physical protection of NFs and NMs
- Has Emergency centre with officers 24 h on duty
- Performs international cooperation in all of the competence areas (bilateral, IAEA, WENRA, ENSREG, ENSRA and other)
- 2016: planned IRRS mission (full scope)

VATESI STRUCTURE



Bilateral

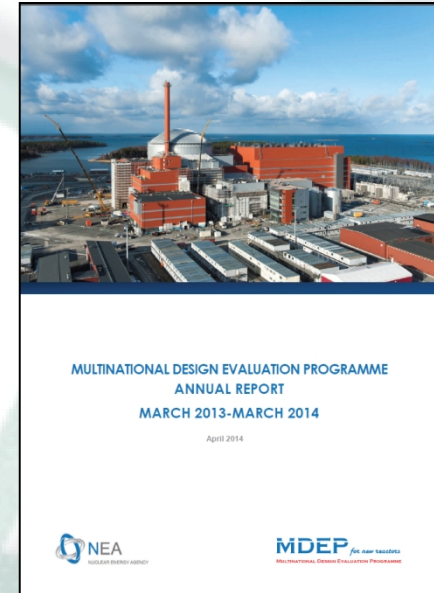
- VATESI had sustained and strong relationship with nuclear regulators from other countries (for instance, United States or Sweden)
- Selected strategic investor Hitachi proposed **ABWR technology**
- Japan NRA licensing of ABWR **experience**: 4 units under operation, 3 units under construction
- 2014-09-24: Memorandum between **Japan NRA** and **VATESI** was signed



Expectation: staff training, improvement of safety assessment and inspection practice

Multinational Design Evaluation Programme

- Multinational Design Evaluation Programme (**MDEP**) – to leverage the resources and knowledge of the national regulators who will be tasked with the review of **new reactors power plant design**
- **September 2013:** ABWR Working group (Finland, Japan, Sweden, UK and United States)
- VATESI is planned to join ABWR WG

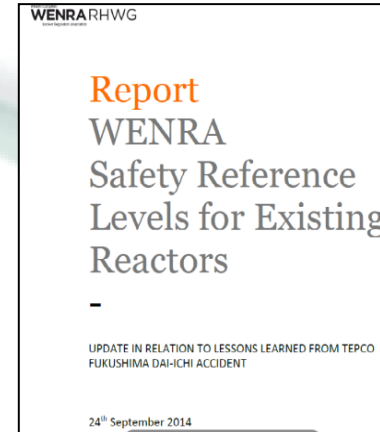


Expectation: to exchange information about safety reviews in the areas of Fukushima lessons learned enhancements, instrumentation and control, severe accidents, probabilistic risk assessment, radiation protection, design basis accidents and safety system diversification, taking into account design differences among countries and differences in licensing processes

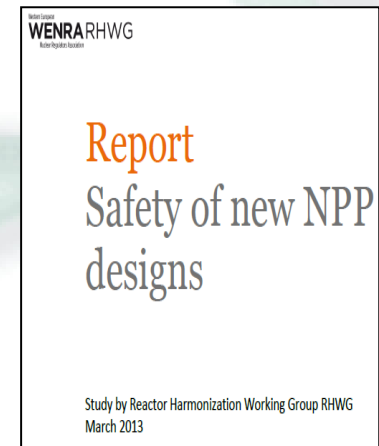
WENRA

•1999: Western European Nuclear Regulators Association (WENRA)

- to develop a common approach to nuclear safety
- **Safety Reference Levels for existing reactors**
 - 2014-09-24: revised including the lessons learned from the Fukushima accident
 - 19 different topics are covered
- **Safety Objectives for New Nuclear Power Plants (March 2013)**
 - 7 selected key safety issues are addressed
 - Provisions related with lessons learnt from Fukushima Daiichi accident



www.wenra.org



Expectation: to use WENRA Safety Reference Levels and safety objectives during preparation of national nuclear safety requirements for existing and new NPPs

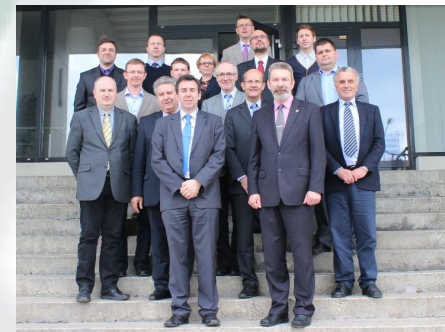
International Peer Reviews (1/3)

• **Final Summary Report** (2nd Extraordinary Meeting of the Contracting Parties to the CNS, 27-31 August 2012, Vienna, Austria):

- **International Peer Review** missions involving experts from other Contracting Parties **can play an important role** in achieving and maintaining a high level of safety with respect to nuclear installations”
 - Lithuanian participation in European “stress test” exercise and their **peer review (12-15 March 2012)**
 - IAEA expert mission to **review draft national nuclear safety requirements** (24-27 May 2010; 5-9 May 2014)

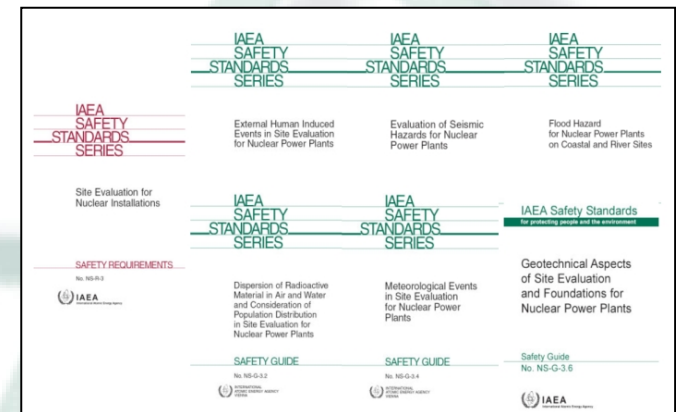


www.ensreg.eu/EU-Stress-Tests



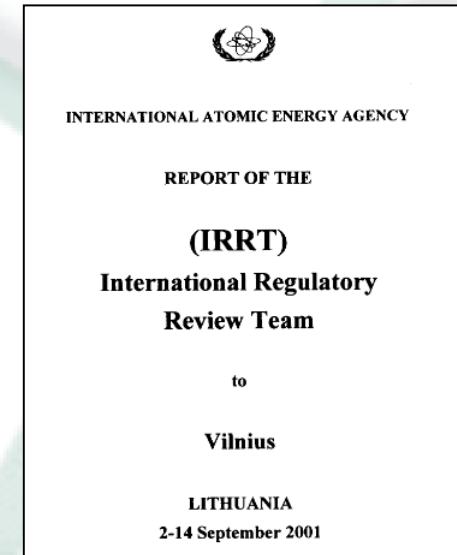
International Peer Reviews (2/3)

- Host international peer review missions on integrated nuclear infrastructure and other relevant matters, including **site** and design **safety reviews** prior to commissioning its first nuclear installation
- **Site Safety Review Mission** for reviewing selected topics of the Site Evaluation Report (SER) for Visaginas NPP sites (in relation to seismic, geotechnical and human induced hazards), 8-12 November, 2010
- The **Mission concluded** Site evaluation for Visaginas NPP generally was conducted **in line with IAEA safety requirements and safety standards**. The volume of investigations carried out by Visaginas NPP company is sufficient, and both selected sites are suitable for construction of a new NPP



International Peer Reviews (3/3)

- Host, as appropriate, an international peer review mission of its **regulatory framework** governing the safety of nuclear installation, if the Contracting Party has an operating nuclear installation
 - Lithuania planned IAEA IRRS mission (2016), first was in 2001 (IAEA IRRT mission)
- Host regularly, as appropriate for the size and number of the nuclear installations within Contracting Party, international peer reviews missions of the operational safety of its nuclear installations, if the Contracting Party has an operating nuclear installation
 - **OSART** missions in Ignalina NPP (1995; 2006)



**Encourage all countries
timely invite
appropriate
IAEA
missions**

CONCLUSIONS



- Capability building
- Improvement safety assessment and inspection practice
- Enhancing of national nuclear safety regulation
- Confidence building



Thank You for Your attention!