Since the 2014 Nuclear Security Summit, Lithuania has strengthened nuclear security implementation and built up the global nuclear security architecture by

**Strengthening Nuclear and Other Radioactive Material Security**

- State Nuclear Power Safety Inspectorate (VATESI) continuously carries out national regulatory activities and supervision of physical security of nuclear facilities, nuclear materials and all materials of the nuclear fuel cycle. VATESI experts review physical security documents, submitted by entities carrying out site evaluations of nuclear facilities, all licence and permit holders and applicants alongside other economic entities involved in any activities pertaining to nuclear materials. VATESI experts prepare comments, conclusions and supervise compliance with the regulatory legislation on physical security of the nuclear facilities, nuclear and nuclear fuel cycle material, and conduct physical security inspections.

- In 2015, State Nuclear Power Safety Inspectorate (VATESI) revised the existing regulations on Physical Security (Nuclear Safety Requirements BSR-1.6.1-2012 “Physical Security of Nuclear Facilities, Nuclear Material and Nuclear Fuel Cycle Material”) and issued an amendment to the regulation. The amendment specifies the process of development of physical security justification documents (i.e. Security Plan and Vital Area Identification documents) and coordination of those documents with the competent authorities. The amendment is in line with the recommendations defined in the IAEA Nuclear Security Series #13 (INFCIRC/225/Rev.5).

- In December 2015, a VATESI led Interagency Commission for Design Basis Threat Assessment held a meeting to review and make conclusions on the established Design Basis Threat documents, related to all nuclear facilities of the Republic of Lithuania and to the nuclear material transportation. The main objective of this review was to address changes in the regional geopolitical situation and determine possible changes in the threat assessment. A Design Basis Threat to the nuclear facilities and nuclear material was introduced in 2001 and is reviewed annually.

- Radiation Protection Centre (RSC) in its national capacity of radiation protection regulatory authority, carries out identification activities and prepares implementation recommendations on all principles and criteria that are relevant to the national radiation protection regulation -
accounting of ionizing radiation sources, securing radiation protection and physical protection of ionizing radiation sources.

• Radiation protection national legislation reviews completed during the relevant period include:
  
  o New amendment to the Law on Radiation Protection with added emphasis on radioactive material security;
  
  o new National Guidelines for Security of Ionizing Radiation Sources, developed in accordance with the IAEA recommendations (IAEA Nuclear Security Series #14 and #11), approved by the Minister of Health, with additional provisions on design and implementation of physical protection systems, relevant to all respective categories of radioactive materials, and potential threat and consequence assessment. Licensees and temporary permit holders are now required to perform vulnerability assessments of their physical security systems in order to assess the system efficiency and guarantee sufficient quality of the physical protection measures deployed;
  
  o new amendments to the Guidelines on Import, Export, Transit and Transport of Radioactive Materials, Radioactive Waste and Spent Nuclear Fuel were approved by the Minister of Health and Head of VATESI on 24 December 2008, adding to new security requirements for transportation of radioactive materials. The Guidelines have been developed in accordance with the IAEA recommendations (IAEA Nuclear Security Series #9).

• Nuclear Security Centre of Excellence (NSCOE), established in Lithuania in the aftermath of the Nuclear Security Summit in Seoul in 2012, has significantly developed its operational capacity. Main goal of the NSCOE is to support sustainability and effectiveness of the national nuclear security measures and their development through continuous assistance to the stakeholders in development of human resources. NSCOE develops and implements training programs tailored to the specific needs of various stakeholders, promotes and supports interagency collaboration and coordination and continues international cooperation in the nuclear security training.

• The Government of Lithuania shares integrated approach of the IAEA Integrated Regulatory Review Service (IRRS) as effective peer review of the regulatory technical and policy issues and an objective comparison of the national regulatory infrastructure against IAEA Standards and Guidance. Lithuania will welcome the IAEA Integrated Regulatory Review Service (IRRS)
mission on April 17 – 29, 2016, with a part of the upcoming mission to be dedicated to the evaluation of safety/security interface module.

- Lithuania remains committed to the IAEA’s efforts of assisting the Member States in establishing and maintaining effective nuclear security regimes and protection against the unauthorized removal of nuclear material and the sabotage of nuclear facilities and material. Lithuania recognizes International Physical Protection Advisory Service (IPPAS) mission as a fundamental part of these efforts and is convinced that IPPAS system is a very efficient asset in assisting the State in the assessment of its nuclear security regime and in the development of future activities in support of nuclear security issues. The Government of Lithuania has officially requested for the International Physical Protection Advisory Service (IPPAS) mission, confirmed by the IAEA to be conducted in the year 2017. The general purpose of the planned IPPAS mission is to assess Lithuania’s nuclear security regime.

- Lithuania is committed to continuous orphan sources search campaigns, organized by the RSC as part of its annual programs. Orphan sources search areas widen and include various sites of former industrial and military installations, medical treatment facilities, and municipal waste landfills throughout Lithuania.

- Lithuanian Nuclear Security Centre of Excellence (NSCOE) will continue to add to the international efforts in the face of growing threats of terrorism, focusing national training programs on nuclear security personnel capability development. The main goal of NSCOE is to support domestic sustainability and effectiveness of the nuclear security measures and their development through continuous assistance to the stakeholders in training. NSCOE will continue developing and implementing training programs that are tailored to the specific needs of the numerous stakeholders. The Centre also promotes and supports interagency collaboration and coordination and maintains international cooperation in the area of the nuclear security training. NSCOE will continue with its public awareness raising efforts on nuclear security measures and their impact to the national security, and promotion of robust nuclear security culture and integrity.

- Lithuania participates in the Global Initiative to Counter Nuclear Terrorism (GICNT), and continues its cooperation with the Global Threat Reduction Initiative.

Prior to the Nuclear Security Summit 2016, Lithuania has confirmed support to the newly introduced and continuous gift baskets on: Sustaining Action to Strengthen Global Nuclear Security; Enhancing Radiological Security; Strengthening the Security of High Activity Sealed
Radioactive Sources; Activity and Cooperation on Countering Nuclear Smuggling and Nuclear Security Training and Support Centres/Centres of Excellence (NSSC/CoE).

Lithuania intends to support relevant NSS joint statements and will duly contribute to the future development of these initiatives.

Minimizing Nuclear and other Radioactive Materials

- Activities involving radioactive materials may be authorized and conducted in Lithuania only when economic, social and other returns to individuals or society outweigh the detriment radiation causes to human health and the environment. Written verification of intent of the planned activities of the applicant with radioactive materials is one of the main documents required to be submitted with license or temporary permit application.
- Due to the efforts made and the new availability of alternative technologies based on X-ray generation, the number of sealed sources in Lithuania is declining annually. All sealed sources of ionizing radiation are required to be returned to the consignor after their use.

Countering Nuclear Smuggling

- Lithuania remains fully supportive of the information sharing initiative on illicit trafficking of nuclear material under the framework of the IAEA Incident and Trafficking Database of Nuclear and other Radioactive Material. National nuclear regulatory authority (VATESI) is responsible for notifying the IAEA Database on all relevant events in Lithuania and for collecting all global data on illicit trafficking events involving nuclear and other radioactive material. Complete information on reported cases involving illicit trafficking of nuclear and other radioactive material worldwide is duly shared with other competent institutions of Lithuania.
- Bilateral cooperation in countering nuclear smuggling grows strong as the collaboration between the United States and Lithuania builds up in a comprehensive manner, contributing to deterrence of future smuggling attempts and strengthening global security. Bilateral Counter Nuclear Smuggling Joint Action Plan, signed in April 2013, is aimed at prevention, detection, and response to nuclear and radioactive materials smuggling incidents. On December 14, 2015, Lithuanian- U.S. Counter Nuclear Smuggling Joint Action Plan review was performed by the multiagency representatives from Lithuania and the United States as a continuous effort to seek
ways to further strengthen joint endeavor to counter nuclear smuggling in areas of prevention, detection and response.

• Maritime supply chain security is coordinated by the State Border Guard Service (SBGS) of the Ministry of the Interior of the Republic of Lithuania. SBGS continues close cooperation with the United States Department of Energy Nuclear Smuggling Detection and Deterrence program (NSDD): multiple Dual-Pillar RPMs and vehicle RPMs have been installed at the Klaipeda seaport, „Klaipeda Smelte“ terminal, Klaipeda Container Terminal and near the „Draugystė“ railway station. Primary purpose of this new system is to monitor vast majority of marine containers shipped to and from the Klaipeda seaport and identify possible attempts of illicit trafficking of nuclear and other radioactive materials. Secondary inspection of the suspected marine containers is performed by the trained border guard officers, following the approved procedures. Since 2013, the SBGS performs annual metrological verification of the handheld dosimeters that are used in secondary inspections.

• According to the U.S.-Lithuanian Counter Nuclear Smuggling Joint Action Plan, the multiagency representatives are committed to organizing future ad hoc reviews of counter nuclear smuggling activities in areas of prevention, detection and response. Bilateral cooperation in nuclear detection, law enforcement investigations, and other forms of collaboration will be continuous and will contribute to effective bilateral and international partnerships in the field within the framework of the Plan. Lithuania reaffirms its commitment to share expertise in the area with other international partners.

Supporting Multilateral Instruments

• Since Lithuania has ratified the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material (CPPNM) in 2008 and deposited its instruments of ratification on May 19, 2009, all Lithuanian legislation, regulations and policies have been developed in coordination with the amended CPPNM.

• Lithuania remains committed to CPPNM and together with the IAEA community welcomes the international progress in ratification of the Amendment as an important step to bolster nuclear security worldwide. CPPNM is the only legally binding international undertaking in the area of physical protection of nuclear material, hence adoption of the Amendment to the CPPNM is the single most important step the international community can take to strengthen nuclear security globally.
• Lithuania will continue its support and contribute to all multilateral and regional efforts of the international community in raising sufficient awareness and securing additional ratifications that are needed in order for the Amendment to enter into force, with the goal of achieving this by the end of 2016.

Collaborating with International Organizations

• Lithuanian nuclear security experts submit contributions to the IAEA Nuclear Security Series document drafts, participate in the IAEA’s Nuclear Security Guidance Committee and are members of the Agency’s Working Group on Radioactive Source Security (WGRSS).
• RSC cooperates with and reports to IAEA on the source security status via web platform of Nuclear Security Information Management System (NUSIMS), designed for self-assessment, country-specific nuclear security information gathering, information management and sustainability.
• Lithuanian experts have participated in the Integrated Regulatory Review Service (IRRS) missions to Pakistan, Netherlands, Croatia and Armenia, led by the IAEA. Expert participants of these missions had a valuable opportunity to share their expertise internationally. Lithuanian institutions are preparing for the IRRS mission in Lithuania, which will be conducted on April 17 – 29, 2016.
• Lithuanian RSC co-operates with the World Institute for Nuclear Security (WINS) and The Nuclear Threat Initiative (NTI). RSC expert has participated in the Workshop on NSS Gift Basket “Enhancing Radiological Security” in Oslo in January 2016.
• With a view to assess the implementation progress of the new IAEA recommendations on both national and institutional levels, the Government of the Republic of Lithuania has invited and received confirmation of the IAEA for the International Physical Protection Advisory Service (IPPAS) mission to assess Lithuania’s nuclear security regime. The IPPAS mission is confirmed to take place in the year 2017. Lithuania has received IPPAS missions in 1999 and in 2001.

Partnering with External Stakeholders

• Promoting cooperation in the area of the prevention of proliferation of weapons of mass destruction and advancement in defense and military relations, the Government of Lithuania continues cooperation with Government of the United States. Several bilateral meetings on
security of sources were organized during this period. Visiting experts from the United States have reviewed existing national legislation on security of radioactive materials and prepared recommendations for improvement. Moreover, the demand for trainings for the officers of the Police Department under the Ministry of the Interior regarding detection of orphan sources issues was discussed and the repair and renewal possibilities for the RSC equipment used to detect orphan sources were considered. In 2014 and 2015, Police Department officers participated in detection training in Dubrovnik, Croatia, organized by the Sandia National Laboratory and in the United States Department of Defence equipment use and maintenance training.

- RSC continues its collaboration with the Institute for Transuranium Elements (ITU) on various scientific issues in nuclear security – particularly, in combating illicit trafficking of nuclear or other radioactive materials.

- NSCOE has become an important regional nuclear security training hub and is further expanding its activities: 34 training events have been organized in the actual period with 764 national and international participants. Productive cooperation network has been established between the NSCOE and the U.S. Department of Energy, the IAEA, Interpol, OSCE, GICNT, other international organizations and fora. The most significant cooperation is developing with U.S. Department of Energy Nuclear Smuggling Detection and Deterrence Program (NSDD). NSDD is the main NSCOE partner in developing national nuclear security detection infrastructure and building personnel capabilities. NSCOE achievements and progress were featured as a success story in the NSDD Program Review Conference, held in the Fall of 2015.

- NSCOE provided training support to the Ukrainian and Moldovan law enforcement agencies, and continued cooperation with Georgia and Armenia.

- NSCOE is an active member of IAEA Nuclear Security Support Centre Network: national and regional IAEA training events were organized in cooperation with and utilizing the NSCOE infrastructure.

- In cooperation with the U.S. Export Control and Related Border Security Program (EXBS) and Defense Threat Reduction Agency (DTRA), trainings and workshops for national and regional audiences were organized. Global Initiative for Combating Nuclear Terrorism (GICNT) Nuclear Forensics Working Group organized an in cooperation with NSCOE as a national response effort to illicit trafficking; and the IAEA training courses on Radiologic Crime Scene Management and nuclear forensics foundations were held in addition to the implemented national training program.