

**STATE BORDER GUARD SERVICE  
AT THE MINISTRY OF THE INTERIOR OF THE REPUBLIC OF LITHUANIA  
BORDER CONTROL MANAGEMENT BOARD  
NUCLEAR SECURITY CENTRE OF EXCELLENCE**

**ACTIVITY REPORT 2017  
VILNIUS, LITHUANIA  
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**I. GENERAL INFORMATION**

In 2016 the State Border Guard Service at the Ministry of the Interior of the Republic of Lithuania (SBGS) Border Control Management Board Nuclear Security Centre of Excellence (NSCOE) continued activities implementing its mission – to support Lithuanian institutions having nuclear security responsibilities to build and to foster their capabilities to prevent, to deter, to detect, effectively to response and to intercept the cases of illicit trafficking of the nuclear and radioactive materials as well as ensure physical protection of the nuclear facilities. Implementing these objectives NSCOE provides human resource development services to the national stakeholders, carries out training and exercises and promotes interagency cooperation and coordination.

Secondly, being a structural unit of the SBGS, the NSCOE manages radiation detection at the State border and nuclear infrastructure's physical protection functions assigned to the SBGS.

The NSCOE is an unique organization due to despite it has been operating under the SBGS, it provides respective services to number of other stakeholders. That is why NSCOE is playing a specific role sustaining national nuclear security regime. Within the international community Lithuanian experience is often being presented as a good practice and effective decision to develop and to sustain nuclear security human resources.

The need to develop and to foster nuclear security capabilities and to develop efficient personnel has been continuously growing taking into account the emerging terrorism threats – this has been highlighted in the European Union CBRN Action Plan.

After the organizational changes in 2016, (the NSCOE was moved from the BG School to the HQ Border Control Management Board), the year of 2017 was exceptionally dedicated to the nuclear security area's activities. The NSCOE was working on the following objectives:

- I. To organize, to coordinate and to supervise radiation detection equipment supplies and relevant infrastructure development for SBGS (in cooperation with US Department of Energy *Nuclear Smuggling Detection and Deterrence Program*);
- II. To manage and supervise radiation detection equipment's maintenance and repair (in cooperation with external service provider);
- III. To manage and supervise radiation detection at the border procedures and quality control (sites inspections, NSC data analysis, etc);
- IV. To coordinate and to facilitate implementation of the SBGS's functions in the area of physical protection of the nuclear infrastructure (Ignalina NPP main site and outside radioactive waste storages as well as while transporting materials);
- V. To carry out training activities aiming at provision of the knowledge and development of the skills that is sufficient to fulfill nuclear security area's functions at the acceptable quality level;
- VI. To develop international cooperation aiming at the identification and elaboration of the good practices and further its adoption at the national level.

In April 2017 the NSCOE carried out the international conference on the occasion of the 5th anniversary of the NSCOE. During the event, foreign and domestic experts underlined that States and separate organizations should continuously provide support and allocate sufficient human and technical resources, develop and promote interagency cooperation and coordination in order to develop strong capabilities to address nuclear security incidents while the NSCOE is an effective instrument to achieve these goals.

### **I. COORDINATION, MANAGEMENT AND SUPERVISION OF THE RADIATION DETECTION EQUIPMENT SUPPLIES AND RELEVANT INFRASTRUCTURE DEVELOPMENT FOR SBGS**

The following equipment was donated to Lithuanian SBGS and was managed by the NSCOE and then distributed to the units:

- Spectrometers, „PRM 470 CG“, 9 pcs

- PRDs, 41 pcs
- „Identifinder 2“, 15 pcs
- PRDs pouches, 25 pcs.

In cooperation with Lithuanian Ministry of Communications was developed and approved the plan of 2018 RPMs installation at the external EU border.

## **II. MANAGEMENT AND SUPERVISION OF THE RADIATION DETECTION EQUIPMENT'S MAINTENANCE AND REPAIR**

In June 2017, the SBGS's owned radiation detection equipment's maintenance and repair agreement with external service provider was concluded. According to the agreement's provisions, the service provider will provide respective services for the next 3 years under the supervision and control of the NSCOE.

In 2017, SBGS owned RPM's and MDS were maintained twice; in cases when certain equipment malfunctions were identified, relevant corrective actions were taken. Additionally, the metrological certification was provided to 52 pcs of handheld equipment.

## **III. MANAGEMENT AND SUPERVISION OF THE IMPLEMENTATION OF THE RADIATION DETECTION AT THE BORDER AND QUALITY CONTROL**

The general overview of the results of radiation detection at the border in 2017:

- 256 events of radiation alarms followed by the secondary inspection took place;
- 1 case when the cargo of wood from Belorussia was refused entry into Lithuania due to excessive radiation doze rate (firewood shipment with the doze rate 0,37  $\mu\text{Sv/h}$ );
- In the most of cases identified were lawful licensed shipments as well as NORM materials;
- Considerable number of individuals after the radiotherapy was detected too.

Throughout the 2017, the NSCOE experts provided support and consulted the first line officers performing radiation detection functions, assessing the alarms and utilization of the equipment. The radiation alarms records and equipment health have been constantly monitored and analysed by the NSCOE using the NCS tools. Additionally, the NSCOE staff periodically takes part in the radiation detection at the border crossing points as well as using the MDS.

#### **IV. COORDINATION AND FACILITATION OF THE SBGS'S FUNCTIONS IN THE AREA OF PHYSICAL PROTECTION OF THE NUCLEAR INFRASTRUCTURE**

The physical protection of the Ignalina NPP main site, external radioactive waste storages as well as while transporting materials has been provided by SBGS Ignalina District Nuclear Infrastructure Physical Protection Unit. The NSCOE is in charge of coordination and facilitation of these functions. In 2017 the NSCOE:

- Participated receiving the IAEA's Integrated Physical Protection Advisory Service's mission in Lithuania;
- Observed NPP physical protection forces table top and field exercises, participated in the physical protection effectiveness evaluations;
- Organised and carried out two workshops on the physical protection;
- Participated developing DBT documents and other activities.

#### **V. TRAINING ACTIVITIES**

Training is an important part of the NSCOE activities. The training management and implementation is governed by the Lithuanian Law and other legal acts, procedures, instructions and NSCOE Annual working plan as well as IAEA human resource development area's recommendations and guides, international best practices. Seeking to ensure quality and effectiveness of training services, the Systematic Approach to the Training concept has been applied throughout entire training process.

The training needs usually have been identified by observing personnel's routine performance, analyzing events and incidents data and assessing the effectiveness of the personnel's response actions. In many cases, stakeholders identify the needs for specific training internally and then request the NSCOE to provide respective service. Alternatively, certain training's needs derive from legal acts requirements, for instance, „Compulsory radiation safety training for certain categories of labour“.

- In 2017 NSCOE continued to manage and to carry out compulsory radiation safety training using e-learning tools. The course is mandatory for the majority of the law enforcement personnel. The courses have been taught by NSCOE trainers specially qualified by the Radiation Protection Centre. 7 such courses took place in 2017, 210 officers were trained.
- The NSCOE conducted radiation protection and basic detection classes for the vocational and introductory training students of the Border Guard School. 156 students participated.
- The NSCOE emphasises the role of external training instructors who conduct local training at the working places. Specific refresher workshop was organised for the group of instructors. Moreover, number of such instructors was invited to support the trainings conducted by the NSCOE experts thus developing their knowledge and training skills.

In 2017 NSCOE organized and carried out 18 training events for domestic and international audience. These trainings were attended by 364 officers. The ultimate goal of these trainings – to provide trainees with the practical skills and basic knowledge to detect and to respond effectively to the cases of illicit trafficking of the nuclear and other materials, to ensure prevention of such incidents reducing by this the threat of terrorism.

- NSCOE's training portfolio was enriched by a new training program dedicated to the physical protection of the nuclear infrastructure.
- In 2017 the NSCOE provided tailored training support to the following domestic stakeholders:
  - ✓ SBGS;
  - ✓ Customs department;
  - ✓ VIP Security Department;
  - ✓ Military Force.
- In 2017 NSCOE organized 4 international events attended by the representatives from Latvia, Estonia and US. The international events were organized with financial and administrative support of the USA Department of Energy and Department of State programs.

The NSCOE continuously cooperates and coordinates its activities with the Ministry of Foreign Affairs, Radiation Protection Centre, State Nuclear Energy Safety Inspectorate, State Enterprise Ignalina Nuclear Power Plant and other stakeholders.

### TRAININGS IMPLEMENTED

	Title of the event	Quantity of the events	Number of participants
<b>Domestic training</b>			
1.	Radiation detection at the border instructors refresher training	1	14
2.	Mobile Detection System Operators training for Customs	1	16
3.	Mobile Detection System Operators training for Customs, VIP Security Department and Military Force	1	8
4.	Mobile Detection System Operators training for VIP Security Department	1	11
5.	Radiation Portal Monitor Operator training course	5	57
6.	Radiation detection at the border for the decision makers (shift leaders)	2	44
7.	Workshop „The basics of physical protection of the nuclear infrastructure“	2	49
8.	Radiation safety training for Military Force	1	4
<b>Overall</b>		<b>14</b>	<b>203</b>
<b>International events</b>			
9.	Baltic exercise development workshop ( <i>in cooperation with US DoE NSDD</i> )	1	32
10.	International Conference „Proliferation Security Initiative“ ( <i>in cooperation with US State Department and Lithuanian MFA</i> )	1	75
11.	The 5th NSCOE's Anniversary Conference	1	44
12.	Training on RPM maintenance ( <i>in cooperation with US DoE NSDD</i> )	1	10
<b>Overall</b>		<b>4</b>	<b>161</b>
<b>Overall</b>		<b>18</b>	<b>364</b>

## VI. INTERNATIONAL COOPERATION DEVELOPMENT

At the international arena the NSCOE develops its cooperation with the following traditional partners:

### **International Atomic Energy Agency (IAEA):**

- ✓ The NSCOE is a member of the International Atomic Energy Agency (IAEA) coordinated Nuclear Security Support Centres Network (NSSC). The NSSC network focuses on continuous improvement of nuclear security human resource professional expertise development through trainings, cooperation of network members in the area of training, identification of good training practice and promoting of nuclear safety culture. In 2017 a Head of the NSCOE was working at the position of the NSSC network vice- chair;
- ✓ The NSCOE has been participating in the working group developing the IAEA TECDOC 1734 “Recommendations on the Establishment and Operations of the Nuclear Security Support Centre”;
- ✓ The NSCOE has been participating in the working group developing the NSSC network information management tools – database, events calendar and newsletter.

### **US Department of Energy Nuclear Smuggling Detection and Deterrence Program (NSDD):**

The NSCOE cooperates and coordinates its efforts with USA NSDD in the areas of nuclear security detection infrastructure development, managing sustainability of the detection measures and human resource development.

### **Global Initiative Combating Nuclear Terrorism (GICNT):**

In 2017 the NSCOE participated in the GICNT exercises and workshops. One of the GICNT exercise has been planned to carry out in Lithuania in 2018.

### **Ukraine Border Guard Service CBRN unit:**

The working meeting was carried out at Ukraine BGS Training Centre dedicated to discuss the nuclear security detection challenges, to identify good practices and to benchmark next cooperation steps between the NSCOE and Ukraine BGS CBRN unit. The next such meeting has been planned to take place in Lithuania in 2018.

The cooperation with the neighbouring Baltic countries (Latvia and Estonia) aiming at the exchange of good practices and to discuss the ways to strengthen the EU nuclear security detection capabilities has been continuously developed.

## **VII. NSCOE INFRASTRUCTURE DEVELOPMENT**

In 2017 m. with financial support of the U.S. NSDD Program, the NSCOE's website [www.nscOE.lt](http://www.nscOE.lt) was upgraded and became more functional.

## **VIII. NSCOE STAFF DEVELOPMENT**

In 2017 the NSCOE staff developed its qualification and competences participating in the following events:

- NSCOE instructors were certified as radiation safety experts within the SBGS
- Joint U.S. Department of Energy/National Nuclear Security Administration (DOE/NNSA) - IAEA international workshop on nuclear security measures and emergency preparedness arrangements for ports;
- U.S. Sandia National Laboratories carried out workshop for compensatory measures and transport response training;
- U.S. Department of Energy/National Nuclear Security Administration (DOE/NNSA) carried out radiation portal monitors maintenance training;

GICNT workshop „Technical reachback and its role in the nuclear security architecture“ carried out at the European Commission's Joint Research Centre's (Ispra, Italy) facility;

- Other relevant events organised in Lithuania, Estonia, Bulgaria.
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