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In Focus

Advanced NSSC Coordination with Stakeholders: Analysis of Operational Data to Sustain Nuclear Security

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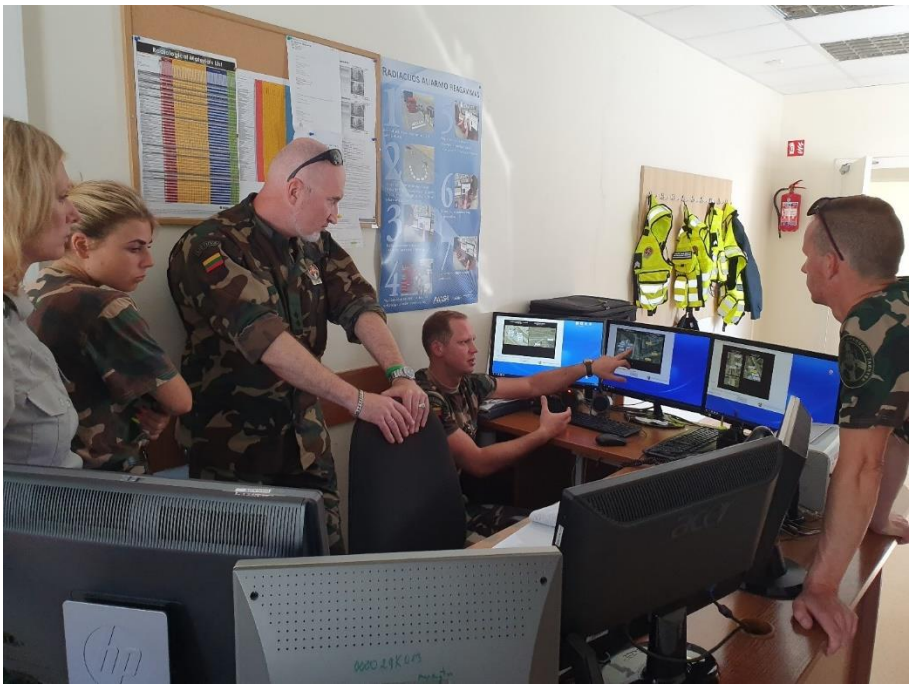


State Border Guard Service officers discussing a nuclear security detection case (Photo: NSCOE)*

Among the many key topics addressed in the IAEA-TDL-010 publication, "Establishing and Operating a National Nuclear Security Support Centre," the importance of coordination and effective information exchange between NSSC stakeholders and the NSSC is emphasized. No doubt, this is one of the main aspects of effective and sound NSSC activities. The publication outlines a general process by which an NSSC can formalize its relationship with stakeholders at the national level, but further coordination and cooperation mechanisms can also be built at the operational level to address all the details and areas necessary to provide systematic support for sustaining nuclear security.

Typically, the NSSC provides its services to relevant stakeholders based on periodic plans, such as an annual work plan, that have been developed based on input from stakeholders. The specific information collected in these plans includes, but is not limited to, the following:

1. Stakeholders' feedback on nuclear security sustainability gaps and the effectiveness of NSSC services;
2. External (third party) feedback on stakeholders' nuclear security performance; and
3. Relevant data from nuclear security operations.

The first two sources of information are important; however, these can be collected and discussed periodically without a systematic approach. The last source of information, operational data, is a particularly useful source of information for identifying sustainability gaps and needs, but can sometimes be underestimated by and is not always available to an NSSC. Recognizing this, in 2019, the Lithuanian NSSC – the Nuclear Security Centre of Excellence (NSCOE) – decided to focus more on identifying ways in which operational data could be used to inform its activities.

We would like to share the experience of the Lithuanian NSSC's interaction with the Lithuanian State Border Guard Service (SBGS), the stakeholder responsible for nuclear security detection and response at the state border. In order to improve the quality and reliability of the information about the results of nuclear security operations, the NSSC has developed a new approach to managing such information:

1. All data related to any type of detection event – real detections, innocent alarms, NORM alarms and fault alarms has been collected in a database;
2. This information is made available to the NSSC and stakeholder on a daily basis; and
3. The NSSC processes, analyses and interprets the data and, as a result, issues recommendations and determines appropriate initiatives for sustainability.

In order to enable necessary data collection and the NSSC's access to this bulk operational data, certain organisational work processes were implemented. Firstly, the NSSC initiated changes to the instructions for completing the SBGS 'Daily Events Report'. Secondly, minor

technical improvements were introduced to the Operational Data database. Thirdly, the NSSC developed comprehensive recommendations on nuclear security detection data collection and introductory training on the database for SBGS units. Finally, it is important to note that all these improvements were made in compliance with information security requirements – computer security – and involved addressing personnel trustworthiness concerns.

While the operational SBGS units are using this bulk detection data for their own needs (risk management, for example), the NSSC has been analysing it from the sustainability point of view to determine the following:

1. Nuclear security detection workload at different locations

Complete alarms data allows the NSSC to estimate the time spent resolving alarms and the need for sufficient human resources to sustain nuclear security detection operations.

2. Compliance evaluations

The NSSC filters and identifies data for specific alarms and assesses whether officers' response to these alarms was effective and in accordance with respective protocols. When necessary, additional information can be requested from the site's managers to make these determinations.

3. Health of the detection equipment, both fixed and handhelds at different sites

This is particularly helpful to ensure technical issues can be fixed immediately, to introduce maintenance plan amendments and to identify the need for additional equipment.

4. Training needs

There is no doubt that access to operational data greatly contributes to continual training needs assessment. Specifically, this helps to determine typical gaps and mistakes, need for new (modified) training materials, and allows identification of active and knowledgeable personnel that may later become trainers.

Additionally, utilising bulk detection data the NSSC started developing and distributing two versions of a quarterly nuclear security detection newsletter. The first version of the newsletter is restricted and intended for the stakeholder (SBGS), its structural units and a few other competent authorities. In this version of the newsletter, we provide complete information about the number of detection cases and their distribution among the sites, seizures and refusals of entry cases and materials detected. We also discuss the lessons learned and share some cases that took place in other countries to illustrate lessons learned and good practices. All newsletter content includes NSSC perspectives on how this information could address operational concerns.

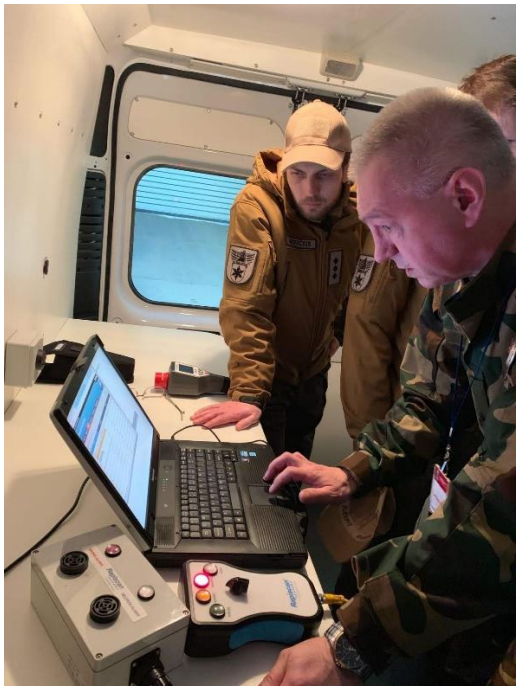
The NSSC has found that the newsletter is an effective instrument to reach out to the stakeholder's senior officers and build their awareness of daily nuclear security activities. This is a factual way to demonstrate that there is a considerable number of detections taking place routinely, and that this specific function requires the attention, involvement and support of management. At the same time, the NSSC's comments and notes included in the newsletter helps readers better understand the specific information provided. SBGS mid-level managers are using this NSSC product for operational-level planning. Other competent authorities are also utilising this unique statistical data for their own purposes; including, but not limited to, risk assessment, security activities, infrastructure development and training.

The second version of the newsletter is considered a "soft" version designed for public access and contains generic information without details of sensitive information. The purpose of this publication is to inform the public and raise awareness of national and international nuclear security efforts. We publish this version of the newsletter on the Lithuanian NSSC website.

To sum up, the Lithuanian NSSC would like to emphasize the positive impact of active involvement of the NSSC in analysing and interpreting stakeholders' operational information. This enables the NSSC to provide time-sensitive and targeted responses to operational needs, providing necessary support in these areas of sustainability. It is important to note that this would not be possible without effective stakeholder and NSSC coordination and information exchange.

Photo credits: NSCOE

*NSCOE trainer conducting lecture**



*NSCOE expert working with specialized software**

Multiagency training

*Nuclear security detection at the railway**

**Please note, all photos were taken during in-person training sessions conducted prior to the COVID-19 pandemic*