International Network for Nuclear Security Training and Support Centres
IAEA NSSC Network

IAEA NSSC NETWORK NEWSLETTER

ISSUE 8 | October 2021

In Focus

Development of the Multifunction Training Facility for Nuclear Security Exercises at Ukraine GKTC

By Anna Havrilyuk-Burkova

Leading Engineer, George Kuzmycz Training Center for Physical Protection, Control and Accounting of Nuclear Material, Institute for Nuclear Research, National Academy of Sciences of Ukraine (GKTC)

At the George Kuzmycz Training Center for Physical Protection, Control and Accounting of Nuclear Material of Ukraine (GKTC), we analyse nuclear security threats and risks nationally, regionally, and globally and make systematic improvements to stay ahead of the threat. In this context, the GKTC regularly reviews and improves existing training materials in line with national legislation, IAEA recommendations, and in consideration of new challenges. Through this process, we are able to identify existing gaps and needs, further develop the training programme, and deploy the available resources of our centre to serve a wide range of national stakeholders.

Recently, based on our analysis, we embarked upon a project to expand the training and resources offered by GKTC to address emerging needs among organizations responsible for responding to potential malicious acts involving nuclear and other radioactive material in Ukraine. The project kicked-off in 2019 with a series of meetings with managers and experts on radiation safety and nuclear security. During these meetings, we analysed needs for training advanced specialists, considering the tasks, skills, technical base and the current number of specialists. We also assessed nuclear security threats that are currently relevant for both Ukraine and the world. Then, GKTC experts worked together with representatives of law enforcement agencies and government officials from various organizations to develop technical requirements for a "Multifunction Training Facility for Situational Exercises" (MTF) project. These technical requirements were the basis of discussions with international partners, exploring their possible support for the MTF project.

The U.S. Defense Threat Reduction Agency (DTRA) agreed to support the development of the MTF under the umbrella of the “Ukraine Nuclear Security Readiness Project” between the U.S. Government and the Government of Ukraine. The facility has been designed, built, and equipped with the latest training technologies, technical equipment, simulation tools, personal protective equipment and decontamination supplies. Most of the construction work was carried out during the first months of the COVID-19 pandemic (March 2020 - January 2021). Though there were some delays we were successful in finally being able to hold the official opening of the MTF in August 2021.

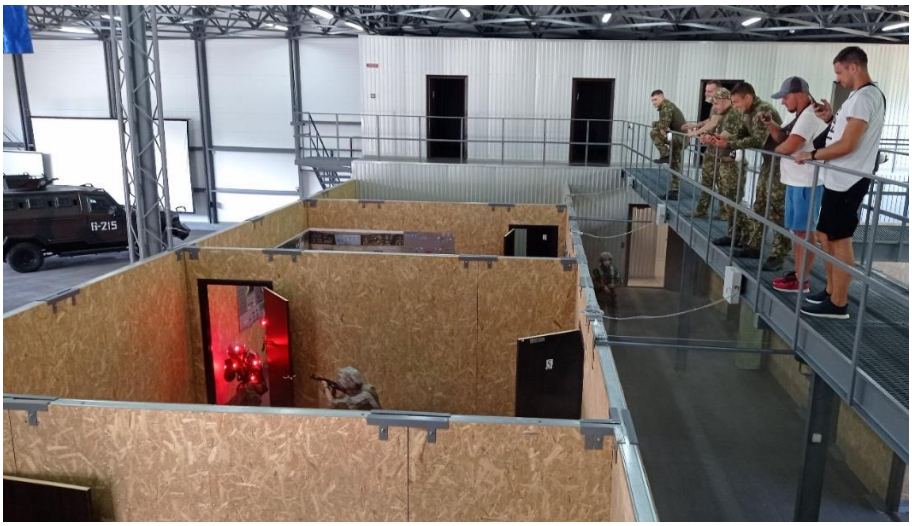
The MTF is designed for practical training on nuclear security in collaboration with the advanced personnel training programmes of the National Guard of Ukraine, the State Border Guard Service of Ukraine, the State Emergency Service of Ukraine, the National Police of Ukraine (NPU), the Anti-Terrorist Center of the Security Service of Ukraine, and physical protection specialists from the nuclear energy complex of Ukraine. MTF training focuses primarily on exercises to detect and respond to nuclear and other radioactive materials out of regulatory control. These exercises include tasks for front line officers to search for, identify, and secure sources of ionizing radiation out of regulatory control. MTF trainees also learn how to implement radiation protection measures and how to package and dispatch radioactive materials for further analysis and storage. MTF exercises also can include scenarios where officers must respond to simulated malicious acts, triggering emergency and crisis situations involving nuclear and other radioactive materials.

One of the first courses conducted at MTF was organized for the patrol units of the NPU on the role of police in detection and initial inspection of radioactive material at the scene of an incident or crime. We partnered with NPU on the first MTF training course because NPU officers are the first to appear at the scene of any incident before the arrival of experts. The training course included modules to better familiarize NPU officers with basic radiation knowledge, means of detection and identification of radiation, means of protection, and to build skills for carrying out decontamination.

After conducting more advanced courses for NPU, a joint training course was organized for all MTF stakeholders involved in response planning for possible acts of sabotage against facilities using nuclear or other radioactive material. After this course, we will conduct further joint workshops, tabletop exercises and field training exercises for MTF stakeholders on practical application of the acquired knowledge.

To conclude, the development of MTF at GKTC was based on systematic analysis of nuclear security threats, risks, and needs in Ukraine, and it was a collaborative project involving a wide range of national stakeholders and a key international partner. The advanced training courses held at MTF not only develop practical skills but also facilitate better communication

and coordination among nuclear security specialists in organizations responsible for responding to potential malicious acts involving nuclear and other radioactive material. MTF training helps front line officers in these organizations to analyse, think critically, plan, evaluate information, and work together to find effective solutions when responding to potential nuclear security events. This expertise significantly increases the effectiveness and efficiency of nuclear security systems and measures in Ukraine and thus the overall security of the state.



Training at GKTC/MTF on response to a simulated nuclear security event (Photo: GKTC)

GKTC/MTF decontamination training (Photo: GKTC)

Police training at GKTC/MTF on conducting investigations during a simulated nuclear security event (Photo: GKTC)

Security forces train at GKTC/MTF on response to a nuclear security event (Photo: GKTC)

Trainees search for radioactive material out of regulatory control during an exercise at GKTC/MTF (Photo: GKTC)