

## Development of National Training Capabilities to Support Nuclear Security Infrastructure in Kazakhstan

The Republic of Kazakhstan is a strong advocate in the non-proliferation of nuclear weapons, being one of only four countries to give up nuclear weapons they previously had in their territory, and is a consistent supporter of the idea of peaceful use of atomic energy.

Kazakhstan has a rich nuclear heritage and developed nuclear infrastructure, including former nuclear test sites; uranium industry; low enriched uranium bank IAEA; BN-350 fast neutron power reactor under decommission; nuclear research centers with research reactors and radiochemical laboratories; industrial companies and medical centers using thousands of radioactive sources.

Nuclear technologies, widely used for industrial, medical and scientific purposes, are an integral and important part of the economy of Kazakhstan. Along with substantial economic benefits, these technologies also bring the risks of theft, sabotage, malicious use, and dissemination of sensitive information related to the use of nuclear and radiological materials. To mitigate these risks, Kazakhstan has introduced a nuclear security regime, the infrastructure of which includes the relevant legislative and regulatory framework, state authorities and operators implementing measures to ensure the physical protection of nuclear facilities, nuclear and radioactive materials, accounting and control of nuclear and radioactive materials, information security, measures to counter the illicit trafficking of nuclear and radioactive materials.

Sustainable and efficient functioning of the nuclear security infrastructure, coordinated interaction and improvement of all its elements require continuous development of human resources. Understanding the need for education and training of personnel in the field of nuclear security, at the 2012 Nuclear Security Summit, Kazakhstan announced its intent to establish a specialized training center.

The Nuclear Security Training Center (hereinafter - the Center) was constructed on the site of the Institute of Nuclear Physics through a cooperative effort between United States and Kazakhstan. The Center's opening ceremony took place in May 2017.

Now Center provides training on fundamental aspects of nuclear security and provides a platform for discussing best practices in this area. The main areas of training at the Center are the physical protection of nuclear facilities and materials, the accounting and control of nuclear material, the combatting illicit trafficking of nuclear and radioactive materials, radiation safety, as well as information and cyber security. Since its opening, more than 300 specialists have been trained in the Center. Trainees represented Kazakhstan's nuclear industry enterprises and nuclear research centers, state authorities, regulatory bodies, border guard and customs services, interior and national security agencies, and transport enterprises. The training courses conducted at the Center demonstrated the advantages of nuclear security training in a specialized center equipped with full-scale simulators, mock-ups and benches, a training ground and a transport checkpoint with modern equipment, same as equipment being used at real facilities.

In the framework of the Center's establishment project, with methodological, technical and financial support of the National Nuclear Security Administration of the US DoE, the training needs analyzes were conducted, training materials for basic courses on physical protection (PP), accounting and control of nuclear materials were developed, instructor training courses and joint training courses on PP fundamentals were held. The Defense Threat Reduction Agency of the US DoD has conducted more than 10 training courses at the Center under the Global Nuclear Security Program.

International cooperation, joint activities with partners contribute to the development of the Center and implementation of a systematic approach to training. The Center has the opportunity to train not only the personnel of Kazakhstan organizations, but also specialists from other countries.

For the sustainability of the Center, considerable efforts will still be needed to develop additional training programs, select and improve the qualifications of instructors, and improve the Center's operational plan. Cooperation of the Center with international experts allows to effectively solve these problems. To participate in the international dialogue, the Center in 2017 became a member of the International Network of IAEA Nuclear Safety Training and Support Centers (NSSC Network).

The established Center is not only an element of national security, but also Kazakhstan's contribution to strengthening global nuclear security.

**State**

Kazakhstan

**Gender**

Female

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