

Nuclear forensics: further development and stability improvement

The establishment and further development of nuclear infrastructure as well as nuclear security regime in the countries, which are commencing the execution of their nuclear power or research program, is accompanied by objective difficulties related to their limited opportunities and competences. Given the IAEA recommendations and approaches, first, clear coordinating mechanisms need to be established and strategic and current tasks and plans of operation of the competent authorities and organizations, either existing or being created, need to be determined.

The general purpose of the state nuclear security regime is protection of individuals, property, society and environment from adverse consequences of the events related to the nuclear security. To achieve this purpose, countries should establish and put into force an effective and proper nuclear security regime and also ensure its operation and stability to prevent, detect and respond to such events. A nuclear security regime covers nuclear and other radioactive materials regardless of whether such materials are under or beyond regulatory control. Each country should ensure the undertaking of prompts and comprehensive measures to detect and, if applicable, recover the lost or stolen nuclear material.

The system of combating illicit trafficking of radioactive materials provisionally includes two main areas: the documentary area, i.e. information and organizational interaction between the competent authorities involved in the process, and the practical one, i.e. direct performance of forensic and other examinations.

An analysis of the events on nuclear forensics, in which Russian specialists have participated, allows to conclude that:

- the model of establishing the documentary area of the system of combating illicit trafficking of radioactive materials is similar in most of the countries, mainly based on the IAEA recommendations and does not require further clarifications;
- it is necessary to support and develop exactly the practical area of the system of combating illicit trafficking of radioactive materials both within a country and on the international platforms.

Since the establishment, support and development of the practical area require the availability of the relevant competences, it is appropriate to pay more attention to it in future, both within a country and in its international activity, by:

- conducting various training sessions and seminars on practical issues;
- practice exchange;
- joint development and improvement of radioactive materials identification techniques;
- dissemination of the techniques among the countries concerned;
- development of training programs;
- carrying out training in various formats;
- strengthening the role of the Global Initiative to Combat Nuclear Terrorism.

A special attention needs to be paid to the international cooperation on nuclear forensics issues. Most of the nuclear forensics issues are known to be of sensitive nature, so the issues of protection of confidential information and ensuring national security of each country play the key role. That is why further development of international information interaction on nuclear forensics issues should be based, above all, on the national legislation, conclusion of agreements between countries and reliability of the data being transferred.

Gender

Male

State

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Track Classification: MORC: Nuclear forensics