

MEASURES AGAINST ILLICIT TRAFFICKING OF NUCLEAR AND OTHER RADIOACTIVE MATERIALS IN THE SLOVAK REPUBLIC

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This presentation contains description of measures used in the Slovak Republic to combat illicit trafficking of nuclear and other radioactive materials. The main goal of these measures is to allow safe and effective utilization of nuclear and other radioactive materials under surveillance of responsible state authorities as well as recover materials that were removed from legal utilization despite the preventive measures.

Prevention is the most effective and the cheapest way how to overcome problems. An important precondition for prevention is existence of a national (or state) system for controlled utilization of nuclear and other radioactive materials completed by an effective physical protection of these materials and facilities involved and supported by sufficient law enforcement.

A state system of accounting for and control of nuclear materials in Slovakia is based on the IAEA INFCIRC/153 requirements. A fact that the IAEA inspectors never have recognized any unaccounted nuclear material could be the best proof of its quality.

Physical protection system in both Slovak NPPs is based on principles applied in development of advanced physical protection systems used in western NPPs. Technological systems and nuclear materials are categorized into three categories – first one is most sensitive. Barriers of each category zone are equipped with sufficient detection systems and are monitored by TV system. The system is operated by NPPs operators. Entrances are guarded by private security guards. Response forces are created by the Police.

A legal support provides the Act No. 130/1998 on Peaceful use of nuclear energy and regulations on Accounting and control of nuclear materials, on Physical protection of nuclear facilities and nuclear materials and on Transports of nuclear materials and radioactive wastes. The Criminal Code of the Slovak Republic has been amended and an illegal possession of nuclear and radioactive materials is treated as a crime.

Response follows when preventive measures have been broken (either inside of state or in neighbor countries). Its purpose is to detect illegally owned material and return it back to a legal owner or its safe disposal.

After first few trafficking incidents on the territory of the Slovak Republic a group of experts from involved ministries elaborated system of measures how to cope with this phenomena.

This system covers

- detection of illegally transferred radioactive material at the border or inside of the territory of the Slovak Republic
- handling and processing of confiscated material
- radiation protection of involved persons

- improvement of analytical instrumentation in laboratories of the Ministry of Interior and Ministry of Health

The measures were applied in two steps. Within the first step some detectors were installed at the border with Ukraine, some police and custom officers were equipped with handheld and personal dosimeters. As the second step detectors has been installed at all border crossings with Ukraine and two border crossings with Poland. Police and customs officers were equipped with handheld and personal dosimeters at all border crossings.

After detection by customs or police officers a special group of the Civil Defense is addressed which carries out the basic identification of the material and together with the officers applies necessary radiation protection measures.

Confiscated material is transported by a specialized group of the Slovak Power Plants (SE) to its facility specialized on decommissioning, radwaste treatment and spent fuel handling (SE VYZ) where the material is stored and prepared for disposal.

According to real experience the effective combating could be done only in co-operation of all involved state authorities

- the Customs authorities and the Police co-operate on investigation of the event,
- the Civil Defense co-operates with the ÚJD SR (nuclear materials) and the Ministry of Health (other radioactive materials) on identification of confiscated material.

On the base of an agreement between the Ministry of Interior (Police, Civil Defense) and the company SE the facility SE VYZ will carry out transport, storage and preparation of confiscated material into a form suitable for disposal.

Special form of co-operation is co-operation between the Police of the Slovak Republic and police authorities of surrounding states and INTERPOL. This is the most effective way how to detect trafficked material inside the state territory (in the case of alpha emitters maybe the only one).

Certain form of international co-operation is participation of the Slovak Republic in the IAEA programs in this field, mainly contribution to the IAEA database on illicit trafficking of nuclear and other radioactive materials.