



NUCLEAR SECURITY SUMMIT 2014

NATIONAL PROGRESS REPORT

HUNGARY

1. SUPPORT FOR MULTILATERAL INSTRUMENTS (CPPNM, ICSANT E.O.)

The internationally accepted basis of physical protection in Hungary is represented by the Law-Decree 8 of 1987, which promulgated the Convention on Physical Protection of Nuclear Materials and by the Act LXII of 2008, which promulgated the Amendment to the CPPNM.

The international convention for the suppression of acts nuclear terrorism was signed on 14 September 2005, ratified on 12 April, 2007, promulgated by the Act XX. as of 2007.

Hungary supports both the IAEA Code of Conduct on the Safety and Security of Radioactive Sources and the IAEA Guidance on Export and Import. The import and export related provisions of the Code and the Guidance are implemented in the national legislation, typically as binding regulations.

Hungary strongly supports the work to prepare the Fissile Material Cut-off Treaty, FMCT and was invited to participate in the Group Governmental Experts starting its work from April 2014 to June 2015.

2. STRENGTHENED NATIONAL NUCLEAR AND RADIOLOGICAL MATERIAL SECURITY SYSTEM, INCLUDING MEASURES TO SHOWCASE THE EFFECTIVENESS OF THE NUCLEAR SECURITY EFFORTS

The Hungarian nuclear security regulatory framework was reformed in 2011, in full compliance with the IAEA recommendations and guidance. The conduct of the National Threat Assessment and the determination of Design Basis Threats, and the subsequent regulatory procedures of licensing and inspection of the newly established physical protection plans of nuclear facilities, nuclear and other radiative material license holders were completed by the end of 2012. The DBTs are updated on annual basis.

According to the national regulation, the holders of radioactive sources and wastes, as well as the users of equipment generating ionizing radiation without containing radioactive material shall comply with prescriptive requirements, which consider the specific DBTs and the basic principles of physical protection (i.e. graded approach, protection in depth, balanced protection, minimal consequence of a component failure). The required physical protection levels (i.e. A, B, C and D) are assigned to different nuclear material, radioactive source and radioactive waste categories. The categorization is in harmony with IAEA NSS No.13 and the Code of Conduct on the Safety and Security of Radioactive Sources. At the same time the licensees of nuclear facilities shall demonstrate adequate protection against the facility specific DBTs as performance based requirements, however shall also comply with the prescriptive regulations as minimum requirements.

Recognizing the importance of material accountancy and control in support of nuclear security, Hungary always emphasizes the need of a well-functioning State System of Accounting for and Control of nuclear materials. Besides the international safeguards obligation, the Hungarian regulatory framework maintains a national central register for all radioactive sources (i.e. Categories 1-5) as well as radioactive wastes above the exemption level.



3. CONTRIBUTION TO AND USE OF THE IAEA'S NUCLEAR SECURITY-RELATED ACTIVITIES AND SERVICES

3.1. INTERNATIONAL PHYSICAL PROTECTION ADVISORY SERVICE – IPPAS IN HUNGARY

At the request of the Government of Hungary an IPPAS mission started on the 27th of May, 2013 to review the physical protection systems of nuclear and radioactive materials and associated activities and facilities in Hungary. During the two weeks period of the IPPAS mission, seven experts from six nations (United States, United Kingdom, Australia, France, Germany and Slovenia) and two IAEA staff members reviewed the regulatory framework, the regulations and guidelines and the regulatory practices of the Hungarian competent authorities including the licensing, inspection and enforcement procedures. The scope of the mission covered the review of the physical protection arrangements implemented by selected licensees, including Paks NPP, the Budapest Research Reactor, a food irradiator facility, a medical facility, as well as during the transport of nuclear and Category 1-3 radioactive sources.

The IPPAS team concluded that the physical protection systems at the visited sites have been significantly enhanced. In the report they identified 9 recommendations and 57 suggestions. The IPPAS team identified also 12 good practices which is an outstanding result. These good practices include the issuance of regulatory guidelines (connected to physical protection) of the Hungarian Atomic Energy Authority which could serve as model for other countries' regulatory bodies, and the system for the register of nuclear and other radioactive materials. The team drew the attention to the exemplary cooperation between the Hungarian Atomic Energy Authority and the National Police Headquarters.

In September, 2013 the IAEA officially handed over the IPPAS report to the representative of the HAEA. A national action plan was developed by the end of 2013 in order to implement the suggestions and recommendations in the coming years.

3.2. HUNGARIAN EXPERTS PARTICIPATING AT IPPAS MISSIONS AND IAEA TECHNICAL AND CONSULTANCY MEETINGS

Hungarian experts in the field of nuclear security have been taking part in IPPAS missions since several years as IPPAS team members/team leaders. Additionally, Hungarian experts actively participate in IAEA technical and consultancy meetings for the development of the guidance and recommendations provided by the IAEA Nuclear Security Series documents.

3.3. COOPERATION BETWEEN THE IAEA OFFICE OF NUCLEAR SECURITY AND THE HUNGARIAN ATOMIC ENERGY AUTHORITY IN THE FIELD OF NUCLEAR SECURITY

A cooperation agreement was concluded between the IAEA Office of Nuclear Security and the Hungarian Atomic Energy Authority (hereinafter: HAEA) in the field of nuclear security for organizing regional training activities, fostering research and development, implementation of advanced techniques and procedures and exchange of information related to the security of nuclear and other radioactive materials and facilities in Hungary.

The HAEA is facilitating the implementation of IAEA recommendations and guidelines in Hungary and committed to organize national and to host regional training courses in the field of nuclear security and physical protection. The HAEA provides technical assistance to the concerned law enforcement authorities, involving experts from TSOs. Exercises are organized regularly involving the law enforcement and scientific organizations, responsible for on-site activities, including security of crime scene, evidence collection and categorization of seized material.

3.4. OFFERING NUCLEAR SECURITY TRAINING POTENTIAL

In the frame of the cooperation agreement mentioned in Section 3.3 several IAEA regional events will be organised in Hungary in 2014. Until now the following events were agreed on:



- „Regional Workshop on Nuclear Security Culture in Practice”, from 18 to 20 February, 2014 (J0-TR-47608);
- „Regional Training Course on Protective and Preventive Measures against Sabotage”, from 23 to 27 June, 2014 (J0-TR-47604)
- „Regional Training Course on a Practical Introduction to Nuclear Forensics” from 11 to 15 August 2014 (J0-TR-47548)
- „Subregional Meeting to Familiarize Member States in Eastern Europe and Central Asia with the Nuclear Security Information Management System” from 4 to 7 November 2014 (J0-TR-47933)

4. SUPPORT FOR NUCLEAR SECURITY-RELATED INTERNATIONAL ACTIVITIES

4.1. EUROPEAN NUCLEAR SECURITY REGULATORS ASSOCIATION (ENSRA)

The Hungarian Atomic energy Authority is a member of the European Nuclear Security Regulators Association since 2010. The main objective of ENSRA is the information exchange of classified data between the member states regarding Physical Security of Nuclear Power Plants and Nuclear Material, sharing experience in 'Best Practice' in order to maintain High Standards.

4.2. NUCLEAR FORENSICS INTERNATIONAL TECHNICAL WORKING GROUP (ITWG)

Hungarian experts actively participate in the work of the Nuclear Forensics International Technical Working Group (ITWG). The objective of the ITWG is to advance the scientific discipline of nuclear forensics and to provide a common approach and effective technical solutions to competent national or international authorities that request assistance.

4.3. MULTINATIONAL STATEMENT ON NUCLEAR INFORMATION SECURITY

Hungary has developed a comprehensive, systematic and graded approach for the classification of any type of sensitive national information and its management in line with the consequences of the disclosure thereof. Based on the IAEA recommendations and guidance, Hungary has prepared a national guideline, titled „Protection of programmable systems and components in nuclear facilities”, which was found very useful and identified as a good practice by international experts of the IPPAS mission hosted by Hungary in 2013. A representative of Hungary was invited by the IAEA to summarize the lessons learned during the IPPAS mission to Hungary with the focus on cyber security related issues on the “Senior Regulators' meeting” organized in the frame of the GC in 2013.

4.4. PARTICIPATION IN THE GLOBAL THREAT REDUCTION INITIATIVE (GTRI)

Hungary participates actively in the Global Threat Reduction Initiative programme to improve the physical protection of Category 1 and 2 radioactive sources at Hungarian source holders. Since 2009, more than 30 sites, which use and store radioactive sources, were supported by this programme.

5. CONTRIBUTION TO MINIMISATION OF SENSITIVE NUCLEAR MATERIALS

5.1. REPATRIATION OF HIGHLY ENRICHED URANIUM FUEL

On the 4th of November 2013 the last HEU transport container left the territory of Hungary completing the repatriation project started in 2008. The spent fuel containing highly enriched uranium was transported from the Budapest Research Reactor operated by the Hungarian Academy of Sciences Centre for Energy Research to the Russian Federation with the involvement of Hungarian, Russian and Czech experts. The whole project was financed by the US Government through the GTRI project.

With the completion of the repatriation project, Hungary became the ninth nation, which completely removed all HEU fuel from its territory.



6. ESTABLISHMENT OF CENTRES OF EXCELLENCE AND SUPPORT

6.1. ESTABLISHMENT OF THE HUNGARIAN NUCLEAR SECURITY SUPPORT CENTRE (NSSC)

Hungary decided to establish a Nuclear Security Support Centre (NSSC) on the basis of the Hungarian Academy of Sciences Centre for Energy Research (HAS CER) in 2012. During 2013 the representatives of the HAEA participated in two dedicated NSSC meetings (Topical Meeting of Nuclear Security Support Centres Network) organised by the IAEA, where Hungary announced that the Hungarian NSSC is planned to start its activity in 2014. The necessary scientific and technical knowledge is already available at the HAS CER in regard to analytical methods recently developed by the centre. The IAEA and HAS CER already signed a cooperation agreement in 2012 in order to support the IAEA in developing guidelines and organising trainings in the field of nuclear forensics.

As a future need, the improvement of physical protection demonstration capabilities of the HAS CER on detection and delay functions were identified by the HAEA. As it was highlighted during the trilateral meeting (IAEA, HAS CER, HAEA) during the IAEA General Conference in 2013 September (GC), the Nuclear Security Office is ready to support this effort.

7. ENHANCED EFFORTS TO COMBATING ILLICIT TRAFFICKING IN NUCLEAR AND RADIOLOGICAL MATERIALS

7.1. NATIONAL LEGISLATION

The response measures regarding found and seized radioactive and nuclear materials are regulated in Hungary by the Govt. decree 17/1996. (I.31.) Korm. on "Measures Related to Found or Seized Radioactive or Nuclear Materials". This decree, which is currently under revision, prescribes the tasks and duties of the different organizations involved from the reporting of detection through the accurate identification, until the storage of the subject nuclear and radioactive materials. The review process of the national legislation has already been finished. Drafting of a new government decree implementing the actions to be performed in connection with missing, found and seized materials is finished and being negotiated among the concerned organizations.

7.2. DEMONSTRATION OF THE FIELD APPLICATION OF BIOSIMETRY TOOLS

Within the frame of the BiO-dOSimetric Tools for triagE to Responders (BOOSTER) EC funded project a demonstration exercise was organized by HAEA in May 2013.

The technical scenario consisted in an RDD explosion in an open urban scenario, when the necessary zones have to be established (red, yellow and green) and traditional and radiological casualties have to be quickly separated. For the triage and the estimation of radiological consequences novel techniques developed by BOOSTER project members were used.

7.3. IAEA INCIDENT AND TRAFFICKING DATABASE (ITDB)

Hungary participates in the IAEA Incident and Trafficking Database (ITDB) programme, where HAEA serves as national Point of Contact for ITDB. Representatives of HAEA participate at the regular ITDB meetings.

8. STRENGTHENED COOPERATION BETWEEN GOVERNMENT AND NUCLEAR INDUSTRY

8.1. NUCLEAR SECURITY GUIDELINES PUBLISHED BY HAEA

In order to facilitate the licensing procedure HAEA issued 18 regulatory guidelines covering the whole licensing procedure and all application types of nuclear and other radioactive materials. The guideline were identified as good practice by the IAEA IPPAS expert team.



8.2. ORGANIZING WORKSHOPS AND SEMINARS FOR LICENSE HOLDERS

In 2012 HAEA organized seminars for licensees in order to disseminate the regulations of the new government decree on physical protection requirements for various applications of atomic energy and the corresponding system of licensing, reporting and inspection.

In 2013 a table-top exercise was organized by the HAEA and the GTRI team on physical protection of high activity radioactive sources. The response forces and the holders of the sources, who participated at the exercise, had the possibility to practice the response to a hypothetical attack against the site. The exercise helped them to identify the weak points of the physical protection systems, to figure out how to improve the security level. Moreover, the exercise served as a useful forum for information exchange between response forces and the holders of radioactive materials.