



## **INSC Project MC3.01/13**

EC Contract N° NSI/2014/343-969

**“Training and Tutoring for experts of the NRAs and their TSOs for developing or strengthening their regulatory and technical capabilities”**

### **TASK 2**

#### **Tutoring Module**

**on**

**“Radiation Protection and Regulatory Emergency Preparedness”**

February 8<sup>th</sup> – April 1<sup>st</sup> 2016

c/o HAEA (Budapest)

#### **Tutoring Programme**

draft

*January 2016*

**INSC Project MC3.01/13  
EC Contract N° NSI/2014/343-969**

**Tutoring Module on “Radiation Protection and Regulatory Emergency Preparedness”**

**Tutoring Programme**

*Draft*

**Duration: 08.02. – 01.04.2016**

**Venue: Hungarian Atomic Energy Authority, address: H-1036 Budapest, 4. Fényes Adolf str.**

**Tutoring Coordinator: Mr. András Kármán**

**Tutoring objective**

The objective of the Tutoring is to provide to the tutees knowledge, practical examples of regulatory practices and to exercise important issues in the area of radiation protection control and regulatory emergency preparedness.

**Tutoring content**

The tutoring course (8 weeks organized for 2 tutees) is planned back to back to the one week EU dedicated training course in Budapest on the same topic.

The tutoring activity is conceived as “on-the-job training” in the area of radiation protection control and emergency preparedness.

The tutoring will included the familiarization with:

- general aspects of emergency preparedness and response
- content of emergency plan (onsite and offsite)
- responsibility of stakeholders (operator, government and regulator)
- models and measurements for the transfer of radioactivity in the environment and to the public
- measurements and monitoring tools for radiation protection
- responsibility of NRA and regulatory emergency preparedness.
- arrangements of a regulatory emergency centre
- national and international drills
- EC and international legal instruments and requirements

Familiarization with regulatory requirements and applicable standards.

**Expected achievements**

Direct knowledge of requirements for radiation protection and emergency plan content and provisions, emergency preparedness & response, regulatory emergency centre and regulatory role during emergency.

## WEEKLY PROGRAM

*(changes can be introduced in the timing and/or adding new topics according to the progress of activities)*

Week	Topic	Tutor
1. Week	<p><b>Monday</b> at HAEA</p> <ul style="list-style-type: none"> <li>Welcome the visitors and introduce the HAEA Emergency Management Section</li> <li>Adoption of the Agenda</li> <li>Roles and responsibilities of the HAEA in the area of EPR</li> </ul> <p><b>From Tuesday:</b> Visit to the "<i>Frédéric Joliot-Curie</i>" National Research Institute for Radiobiology and Radiohygiene</p> <ul style="list-style-type: none"> <li>Functions in the Nuclear Emergency Response System</li> <li>National Service for Radiation Health Emergency Preparedness</li> </ul>	<p>Mr BALOGH, Csaba Mr KÁRMÁN, András</p> <p>Mr FÜLÖP, Nándor</p>
2. Week	<p><b>From Monday to Wednesday:</b> Visit to the Ministry of Agriculture</p> <ul style="list-style-type: none"> <li>Radioanalytical Monitoring Network</li> <li>Radioanalytical Reference Laboratory of National Food Chain Safety Office</li> </ul> <p>Visit to the Directorate General for National Disaster Management</p> <ul style="list-style-type: none"> <li>Presentation on nuclear emergency threat assessment of Hungary</li> <li>Nuclear Emergency Information and Analysis Centre (RODOS, EURDEP)</li> <li>Alert and Notification Point</li> </ul>	<p>Ms ÁDÁMNÉ SIÓ, Tünde</p> <p>Ms SZILÁGYI, Eszter</p>
3. Week	<p><b>Monday</b> at HAEA</p> <ul style="list-style-type: none"> <li>Introduction of the Hungarian Academy of Science Centre for Energy Research Research Reactor (HAEA presentation)</li> <li>Content of the HAS CER RR emergency plan</li> </ul> <p><b>From Tuesday:</b> Visit to the HAS CER RR</p> <ul style="list-style-type: none"> <li>Responsibility of the operator</li> <li>Interactive implementation of the measurements and monitoring tools for radiation</li> </ul>	<p>Mr BALOGH, Csaba</p> <p>Mr GAJDOS, Ferenc</p>

Week	Topic	Tutor
4. Week	<p><b>HAEA</b> The Hungarian Nuclear Emergency Response System (legal background, structure, roles, tasks)</p> <ul style="list-style-type: none"> <li>• Roles and responsibilities of the HAEA in the area of EPR               <ul style="list-style-type: none"> <li>- organizational issues</li> <li>- tasks, procedures, training and exercises</li> <li>- HAEA crisis centre (CERTA)</li> <li>- arrangements of the regulatory emergency center</li> </ul> </li> <li>• Regulatory supervision of EPR at the Hungarian nuclear facilities               <ul style="list-style-type: none"> <li>- legal background</li> <li>- practical implementation</li> </ul> </li> </ul>	Mr BALOGH, Csaba Mr KÁRMÁN, András
5. Week	<p>Visit to the Paks Nuclear Power Plant</p> <ul style="list-style-type: none"> <li>• Emergency Management Centre</li> <li>• Content of the Paks NPP emergency plan</li> <li>• Responsibility of the operator</li> <li>• Models and measurements for the transfer of radioactivity in the environment and to the public</li> <li>• Measurements and monitoring tools for radiation protection</li> <li>• Introduction of the training system in EPR at Paks NPP and related documentations</li> <li>• National and international drills</li> </ul> <p>Visit to the Interim Spent Fuel Storage Facility</p>	Mr BANA, János
6. Week	Observation of the INEX-5 nuclear emergency response exercise (16 <sup>th</sup> – 17 <sup>th</sup> March)	Mr KÁRMÁN, András
7. Week	<p>Introduction of the Budapest University of Technology and Economics Training Reactor (HAEA presentation)</p> <ul style="list-style-type: none"> <li>• Content of the BUTE TR emergency plan</li> </ul> <p>Visit to the BUTE TR</p> <ul style="list-style-type: none"> <li>• Responsibility of the operator</li> <li>• Interactive implementation of the measurements and monitoring tools for radiation</li> </ul> <p>Practice to use environmental simulators</p>	Mr KÁRMÁN, András Mr CZIFRUS, Szabolcs Mr KÁRMÁN, András
8. Week	Tutees Common Report preparation and its review by the Tutoring Coordinator	Mr KÁRMÁN, András

## Reporting

At the end of the Tutoring Module the Tutees will elaborate a common Report containing the following sections:

- **INTRODUCTION**
- **TUTORING OBJECTIVE**
- **TUTORING PROGRAM**
- **ACTIVITIES PERFORMED**
- **MAIN RESULTS**
- **CONCLUSIONS**

The Tutees Report will be approved by the tutoring coordinator.