

**Field: RADIATION PROTECTION AND WASTE MANAGEMENT**

**Topic: INSPECTION OF ENVIRONMENTAL AND OCCUPATIONAL RADIATION PROTECTION**

<b>Course type:</b>	TRAINING	<b>Objective and learning outcomes</b>
<b>Date:</b>	06-10 May 2024	This course offers fundamental technical knowledge and introduces approaches and practices through which trainees can improve their competences and skills needed in the application of systems, processes and procedures used in the monitoring for purposes of radiation protection at nuclear and radiological installations, as well as in their regulatory control - including review and assessment, authorization and inspection.
<b>Duration:</b>	One week	
<b>Location:</b>	Singapore	
<b>Working language of the course:</b>	English	

**Outline of course content**

- Introduction of radiation protection fundamentals.
- Overview and interpretation of European Union (EU) and international regulatory framework related to radiation protection, with particular emphasis on the implementation of European Basic Safety Standards (EU BSS) Directive and the IAEA General Safety Requirements (GSR) Part 3 into the national regulations.
- Explanation of the concepts, principles and general requirements for radiation protection and safety.
- Overview of governmental, regulatory and operator roles and responsibilities, tasks of key players.
- Introduction of requirements and responsibilities specific to planned exposure situations, existing exposure situations and emergency exposure situations.
- Introduction of the aspects of the management, organization and operation of radiation protection systems. Overview of source, environmental, workplace and individual monitoring for purposes of radiation protection. Explanation of conditions and considerations in designing programmes and applying measurement and modelling techniques in radiation protection monitoring. Explanation of the issue of quality assurance, maintaining records, the interpretation of monitoring results, overview of considerations in dose assessment.
- Summary of scope, systems and procedures of radiation protection monitoring for different facilities (such as nuclear power plants and research reactors, waste management and medical facilities), with emphasized differences and special features.
- Introduction of monitoring in emergencies, explanation of the protection strategy.
- Tabletop exercises on the design of radiation monitoring systems and procedures at nuclear installations and dose assessments.
- Roundtable discussion on the key aspects and considerations for planning and performing regulatory inspections of radiation protection systems and procedures at nuclear installations, sharing practices and experience.

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### **Technical schedule and delivery methods**

The course consists of one module taking a working week (i.e. 5 workdays).

- **Classroom lectures** will take about 4 days consisting of 90-minute units with time allocated for discussions and appropriate breaks.
- **Tabletop exercises** and **roundtable discussion** will take about a day.

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### **Target audience**

This course is intended to experts and professionals of Nuclear Regulatory Authorities (NRAs) and Technical Support Organisations (TSOs), with responsibilities and experience related to radiation protection, preferably in source, environmental and individual monitoring.

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**Target number of participants:** 15 – 25

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### **Prerequisites and requirements for participants**

Participants should have basic radiation protection knowledge and an adequate level of knowledge in English (at least an 'Independent user' level defined by the [CEFR](#)). A university degree with nuclear or environmental specialization OR at least 2 years of professional experience in functions relevant to the content of the course is also a prerequisite.

Relevancy of the course topic in the work and institutionally justified interest in participating will be considered as well as the need and opportunity for filling competence gaps. Regional connections to the course location are prioritized and efforts are made to ensure gender equality, so these aspects may also be taken into account as selection criteria.

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### **Terms of participation**

The project is implemented under the European Union (EU) external assistance programme called the European Instrument for International Nuclear Safety Cooperation (INSC) and aims to support the National Nuclear Regulatory Authorities (NRAs) and their Technical Support Organisations (TSOs) in non-EU countries in strengthening their capabilities with regard to their regulatory tasks and responsibilities in the field of nuclear safety and radiation protection.

Employees of the NRAs or their TSOs in the Beneficiary Countries are eligible for financially supported participation in the T&T courses. Beneficiary Countries of the project are published on the project website <https://training.ek-cer.hu/>.

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### **Costs**

Travel costs and subsistence allowances (including the international and national travel tickets, per diems, shuttle services, insurance and visa costs) for participants will be covered by the project.

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### **Application**

Application via the project website <https://training.ek-cer.hu/>, according to the process and deadlines indicated there.

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### **Examination**

Technical and linguistic tests will be written as part of the application and selection process to assess the underlying knowledge and preparedness of applicants. Knowledge and development of selected participants will be assessed through technical tests throughout the course.

Participants attending the full course will be issued with attendance certificates. Successful participants will receive certificates confirming their knowledge achieved and skills acquired.

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