

Field: EMERGENCY PREPAREDNESS AND RESPONSE

Topic: INSPECTING OF EMERGENCY PREPAREDNESS

Course type	TUTORING	Objective
Host institute	National Commission for Nuclear Activities Control (CNCAN) Bucharest, Romania	This course introduces the EU directives and IAEA Safety Standards on emergency preparedness and response (EPR), furthermore provides knowledge on the role and functions of the regulatory body, in particular for developing and implementing an effective regulatory EPR programme and formulating the associated regulatory requirements. Approaches and practices will be introduced to be applied in regulatory licensing, inspection and enforcement processes, so that trainees can improve their competences and skills needed to perform these regulatory functions.
Date	13 May – 07 June 2024	
Duration	Four weeks	
Working language	English	

Outline of course content

- Interpretation of the European Union (EU) acquis in general and the EU and international (e.g. IAEA) regulation on emergency preparedness and response (EPR), with particular emphasis on the implementation of European Basic Safety Standards (EU BSS) Directive and its requirements related to emergency exposure situations into the national regulations. Introduction of radiation protection related international regulations.
- Introduction to the Romanian nuclear regulation and regulatory oversight on EPR:
 - governmental, legal and regulatory framework;
 - role and functions of the regulatory body.
- Introduction on CNCAN management system focusing on inspection process:
 - regulatory inspection programme;
 - interfaces of regulatory inspection programme with licensing activities;
 - use of a graded approach in inspections;
 - inspection topics;
 - planning and preparation of inspections;
 - conduct of inspections;
 - inspections reports and findings.
- Introduction on CNCAN management system focusing on enforcement process:
 - enforcement in the case of institutional applications used by the regulatory body;
 - giving examples on the application of the graded approach during the regulatory enforcement actions.
- Introduction of the radiation protection system and regulatory oversight system.
- Overview of nuclear safety and related radiation protection on facility level.
- On-the-job trainings:
 - hands-on experience in the regulatory inspections on Nuclear Power Plants (NPPs), research reactors, nuclear fuel cycle, medical and industrial facilities;
 - hands-on experience in reporting results and findings of regulatory inspections and in formulating the associated regulatory requirements to be sent to the operating organization;
 - regulatory licensing of nuclear and radioactive waste management facilities at different life-cycle phases with regard to radiation protection issues, and the goals of nuclear safety and radiation protection in different life-cycle phases of the facilities, studying parallel operational and construction activities;
 - guidance and national experiences on facility-level radiation protection, focusing on the Workplace Radiation Protection Rules (WRPR);

- regulatory inspection, starting from the annual planning of inspection activities using risk-informed inspection planning method, up to the assessment of the outcomes of the inspection (e.g. analyzing the non-compliances, initializing of enforcement activities), providing different hands-on experiences in inspecting different institutional applications of ionizing radiation, e.g. training on using of a variety of measuring devices, on site visit at licensees;
- regulatory oversight, inspections of the nuclear and radioactive waste management facilities with regard to the radiation protection issues, with a site visit to a repository and on-site inspection at a radioactive waste management facility.
- Case studies on assessment of radiation protection program of NPP or research reactor, based on the related radiation protection regulations.
- Radiation protection related issues of emergency preparedness and response will be covered briefly.

Technical schedule and delivery methods

The course consists of one module taking 4 working weeks (i.e. 4 × 5 workdays).

- **Classroom lectures:** Core content will be delivered through lectures, supplemented by PowerPoint presentations and handouts to cover theoretical aspects.
- **Interactive sessions:** Participants will engage in role-playing activities and simulations to apply their knowledge in practice.
- **On-the-job training:** Sharing hands-on experiences on licensing, inspection and enforcement, including on-site visits to nuclear and/or radiological facilities.
- **Group discussions:** Facilitated discussions to encourage the exchange of ideas and experiences among participants.
- **Feedback sessions:** Opportunities for participants to receive and give feedback on exercises and simulations.
- **Multimedia resources:** Use of videos, case studies, and online platforms to enhance learning.
- **Assessment activities:** Including written examinations, presentations, or practical demonstrations of skills learned.

Target audience

This course is intended for experts and professionals of Nuclear Regulatory Authorities (NRAs) and Technical Support Organisations (TSOs) with responsibilities in the field of emergency preparedness and response.

Target number of participants: 2

Prerequisites and requirements for participants

Participants should have basic nuclear safety and radiation protection knowledge and an adequate level of knowledge in English (at least an 'Independent user' level defined by the [CEFR](#)). A related university degree (preferably with nuclear specialization) and 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 selection criteria as well as the need and opportunity for filling competence gaps. Efforts are made to ensure gender equality.

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 website <https://training.ek-cer.hu/>.

Costs

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

Application

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

Examination

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

Work reports will be prepared by the participants to allow for progress monitoring and determining their final development through acquisition of knowledge, practical experience and expertise, as well as task completions.

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