

Radiological Crime Scene Management Training provided at the European Nuclear Security Training Centre (EUSECTRA): hybrid remote-hands-on training to efficiently complement in-person trainings

The European Nuclear Security Training Centre (EUSECTRA) was inaugurated under this global name about than 10 years ago and is operated by the European Commission, Joint Research Centre (JRC). It, includes a large variety of capacity building and professional development activities, which span from the hands-on training for nuclear security and safeguards actors (e.g. front line officers, law enforcement and nuclear inspectors) to educational efforts in both nuclear security and safeguards. EUSECTRA aims to improve Member States' capabilities to address the threats associated with illicit incidents involving nuclear or other radioactive materials by providing hands-on training using real nuclear materials to front-line officers, their management, trainers, and other experts in the field, and in particular in the field of radiological crime scene management (RCSM). Based on the unique combination of scientific expertise, specific technical infrastructure, and the availability of a wide range of nuclear materials, EUSECTRA complements national training efforts by providing realistic scenarios with real, special nuclear material.

EUSECTRA represents a substantive enduring and sustained core activity at JRC and positions nuclear security training at the centre of its extensive nuclear counter-terrorism and nuclear non-proliferation portfolio. EUSECTRA has been providing RCSM training to a number of countries worldwide, such as recently a series of training courses behalf of DG HOME addressing law enforcement officers from national organizations of EU Member States.

The training is organised to provide participants basic and expert knowledge in radiological crime scene management. Radiological crime scene management is the process used to ensure safe, secure, effective and efficient operations at a crime scene where nuclear or other radioactive materials are known, or suspected, to be present. The training aims at bridging law enforcement procedures, radiation protection measures and nuclear measurement expertise in processing a crime scene which is (or is expected to be) associated with radioactive material. Self-protection, evidence collection, evidence management, contamination control, initial identification of the radionuclides and radiological assessment are the primary topics of this one-week-course. Therefore, awareness is built through lectures on the different types of radiation and their detection but also on their impact on evidences. The potential threat posed by misuse (in a malevolent or terrorist act) of nuclear and radiological material out of regulatory control, put the collection and preservation of evidence in the spotlight. Realistic, scenario based and practical hands-on exercises have helped participants to understand the risks and challenges associated with working in a radiological crime scene environment and how integrate it in the standard operating procedures of police and radiation protection. The trainees lead these exercises under supervision of the trainers. Interventions at the scene are discussed prior to starting any action. Once the crime scene has been processed, the management of the radiological crime scene and the problems encountered are critically discussed with a view to improve. Focus is given to ensuring that all actions at a radiological crime scene are carried out in a way that maintain the integrity of the criminal investigation and that all relevant criminal investigative procedures are applied through effective radiological crime scene management and that participants should be able to integrate some basic protocols at national level to manage such a crime scene.

The EUSECTRA serves primarily as platform for enhancement of efficient networking and capacity building between experts from EU Member States. During provision of the course, special attention is given that participants interact amongst them in a collaborative and knowledge sharing manner. The trainings are used for exchanging good practices while recognizing that protocols and procedures might be different from country to country. Moreover, the resources available in case of radiological crime scene are not the same in each country and some collaboration might be helpful to improve or create protocols for radiological crime scene management. EUSECTRA training situations with multi-national training groups serve also to strengthen border-crossing networking among specialists and support community building.

Law enforcement experts - related to CBRN counter terrorism- from several EU MS national authorities, Europol and other international organization (such as IAEA or FBI) have joined this specialized training as trainers. Their participation has consolidated and enhanced the learning experience by sharing knowledge

and skills earned during real cases. Moreover, it contributes to create a culture which encourages the generation of practical ideas and better ways of working by capturing and dispersing best practice well beyond its original purpose.

It might be worth mentioning that a few years ago, representatives of Hungary were trained in RSCM at EUSECTRA. Benefitting from this experience, they developed their own national curriculum, cascaded the acquired knowledge, and trained over 400 police officers. This exemplary practice is shared as a success story subsequent EUSECTRA trainings.

During the course, the trainees got access to large portfolio of training materials, radiation measurement instruments and other equipment available at the training facility. The practical exercises benefit from the wide range of radioactive sources and specific nuclear materials (low enriched uranium and highly enriched uranium, reactor and weapon grade plutonium, caesium source) available at EUSECTRA.

While the core activities of the trainings are field exercise with emphasis hands-on elements, the recent pandemic has restrained physical trainings and the value of on-line and remote trainings has come to light in such tough situation. The EUSECTRA Remote Interactive eTraining was developed at soon after the start of the Covid19 crisis. It should be noted, though, are intended to complement, not to substitute physical trainings (which will remain EUSECTRA core activities). In the medium and long term, the EUSECTRA Remote Interactive eTraining sessions will be used as introductory or refresher courses.

EUSECTRA puts strong emphasis to offer training course that are as interactive as possible using all modern technical tools available and to focus on field/practical exercises involving the use of a broad range of instruments and nuclear or other radioactive materials.

Detailed description of the trainings will be presented in the scope of this paper.

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