PIANOFORTE Training Course on Internal Monitoring and Emergency Response

The 5 day training was held 1 – 5 July 2024 in Federal Office for Radiation Protection in Berlin. The course contained lectures, case studies, lab showcases and field exercise. Lectures explored the topics of in vivo and in vitro measurements, medical treatment of deterministic radiation effects, decontamination and decopropration therapy, emergency scenarios and emergency response plans, provision of releases from nuclear facilities, organising measurements of a large number of persons and risk communication. Lectures were given by in-house experts and external experts. Risk communication lecture had an exercise in which participants had to write concise and clear answers to some common questions asked by public about radiation and its effects. The case studies involved watching material related to Litvinenko case, dirty bomb emergency management and Chernobyl, followed by discussion. Lab tours showed the preparation and various analysis methods for contamination detection in urine as well as measurement of internal contamination via whole body counting measurements. Field exercise was organised as a simulation exercise of handling of external and internal contamination measurements after the radiological accident. Actors, potraying various population representatives (such as pregnant women, injured people, foreigners, worried and confused people) were measured by decontamination monitors and dose rate meters. In case of detected contamination, actors were sent to showers and advised to wear new clothes. They were sent to whole body counting laboratory afetrwards. Actors without external contamination were sent directly to whole body counting laboratory. During conduction of the exercise, three teams of participants were operating in roles of contamination detection unit, appointments unit and whole body measurement unit.

The training was well organised and insightful. The selection of topics deepened my knowledge in internal monidtoring during emergency scenarios and it was a nice complement to the scientific knowledge I acquired during PhD on internal dosimetry. I particulary liked laboratory showcases, communication exercise and the field exercise. The course also provided good networking opportunities from professionals coming from various fields in emergency preparedness and response. The course concluded with a quiz, which was well designed and covered key aspects of the whole course. Overall, the course provided very nice experience and good learning opportunities. The course organizer was very passionate and desgined the course well. I hope he will provide similar opportunities in the future.

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