



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”

Regional Training Course

Radiation Protection System at Nuclear Facilities

organized by ITER-Consult in East Europe-Central Asia region

Yerevan – June 1 - 5, 2015

Course Objective

An overview of the radiation protection principles requirements and practices to be ensured in nuclear installations and applications from the point of view of the radiation safety of workers, public and environment. The regional training course includes presentations and discussions on the following topics:

- Basic aspects of ionizing radiation and their interaction with the matters and detection principles;
- Radiological safety objectives, radiation protection basic principles, ALARA approach and safety requirements ;
- Conception of the radiation protection system and related monitoring and program;
- Provisions to be taken at design level of nuclear facility in terms of conception, design of SSC and technological processes to ensure effective radiation protection;
- Classification of exposed workers, dosimetry services, administrative requirements and work procedures, radiation monitoring;
- Radioactive source in medical application and radioprotection of patients;
- Requirements for the control of the radioactive releases from a nuclear installation under normal operating conditions;
- Role and responsibility of the nuclear regulator, authorization-licensing process, safety evaluation and inspection from the regulatory authority.

Two practical application sessions are included in the training program.



Course Daily Program

Monday, 1 st June 2015	
9.00 – 12.45	Registration
	Welcome (ANRA, ITER) Organizational aspects, Training objective, Training program
	Infrastructure for Nuclear and Radiation Safety in the EU - <i>A. Madonna</i>
	Interaction of radiation with matter and radiation detection techniques - <i>R. Remetti</i>
12.45 – 14.00	Lunch
	Ionizing radiation detection techniques and shielding calculation (technical and practical aspects) – <i>K. Haroyan</i>
	Health effects of ionizing radiations - <i>R. Remetti</i>
	Assessment of Internal and External Exposures - <i>R. Remetti</i>

Tuesday, 2 nd June 2015	
9.00 – 12.45	Use of radioactive sources in research, industrial and medical field - <i>K. Slavcheva, R. Remetti</i>
	Individual radiation monitoring - <i>L. Poghosyan</i>
	Requirements & standards for radiation protection of Workers, Public and Environment (in normal and emergency) - <i>C. Osimani</i>
12.45 – 14.00	Lunch
14.00 – 17.30	Radiation Protection in Nuclear Facilities - <i>N. Zeleznik, C. Osimani</i>
	Occupational exposure, categorization of workers and classification of areas in a Nuclear Facility - <i>C. Osimani</i>
	Regulatory inspections for Radiation Protection - <i>C. Osimani</i>

Wednesday, 3 rd June 2015	
9.00 – 12.45	Role and function of the NRA with focus on RP - <i>A. Madonna</i>
	Requirements for the Regulator's Inspector and interaction with the licensee – <i>R. Ranieri, G. Pino</i>
	Radiation protection of patients - <i>R. Remetti</i>
12.45 – 14.00	Lunch
14.00 – 17.30	Practical application n. 1 - "RP in medical application"

Thursday, 4 th June 2015	
9.00 – 12.45	Licensing process and regulatory review for a Radiation Protection System in a Nuclear Facility - <i>C. Salierno</i>
	Licensing (authorization) for use of radioactive sources in medical and industrial application - <i>F. Zambardi, R. Remetti</i>
	Requirements and experience for management of radioactive sources in Italy – <i>K. Slavcheva</i>
12.45 – 14.00	Lunch
14.00 – 17.30	Practical application n. 2 - "RP system in a NF"

Friday, 5 th June 2015	
	Radiation protection Expert (RPE) and Radiation Protection Officer (RPO) - <i>C. Salierno</i>
	Dosimetry services - <i>C. Salierno, R. Remetti</i>
	Medical physics experts - <i>G. Trenta</i>
12.45 – 14.00	Lunch
14.00 – 17.30	Course summary
	Course questionnaire
	Opinion from trainees
	Training Minutes (ITER)