



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

Basic nuclear safety concepts, regulatory function, licensing management and decision making

organized by ITER-Consult in cooperation with ANNuR

Hammamet – February 20th – 24th, 2017

Hotel Laico

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Course Objective

The Regional Training Course provides an overview of the basic concepts of nuclear safety, with focus on the regulatory review and evaluation function related to the licensing process. The safety objectives, principles and requirements of the main NPP technologies including RW management facilities, are presented together with their evolution in the last decades, in particular in the development of Defence in Depth (DiD) principles after the severe accidents of Three Mile Island, Chernobyl and Fukushima.

The course will present and discuss the safety requirements for: independence among levels of the DiD, redundancy, independence, diversification, equipment qualification, use of probabilistic safety analysis, RW management activities, decommissioning of nuclear facilities and transport of radioactive material. Attention is given to IAEA safety standards and EU approaches including WENRA safety objectives and reference levels.

Particular attention is devoted to the Nuclear Regulatory Authority (NRA) function for licensing and oversight of nuclear facilities with reference to: establishing of safety objectives and requirements, planning of activities, management of documentation, coordination of internal review work of the NRA, planning and carrying out regulatory inspections, coordination of licensing interfaces with the applicant and other involved institutions, coordination of external technical support (TSO) and related challenges.

Practical application is included in the program, which gives the possibility to the trainees to work in groups and exchange their countries' experience.



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Course Daily Program

Wednesday 22 nd February 2017	
9.00 – 13.00	Regulatory Inspection, inspector competence, attitude and enforcement actions – M. Gregoric (ITER)
	Content of SAR for NPP – K. Horváth (HAEA)
	NRA management of Licensing process and decision making – K. Horváth (HAEA)
13.00 – 14.00	Lunch
14.00 – 17.30	Regulatory review of SAR for a Nuclear facility – K. Horváth (HAEA)
	New regulatory challenges for new reactor design – A. Madonna (ITER)

Monday 20 th February 2017	
9.00 – 13.00	Registration
	Welcome, Organizational aspects, Training objective, Training program (ANNuR, ITER)
	ANNuR Network and activity - D. Mosbah (ANNuR)
	EU legal framework and infrastructure for Nuclear & Radiation Safety – A. Madonna (ITER)
	Roles and responsibilities of nuclear regulatory authority – A. Madonna (ITER)
13.00 – 14.00	Lunch
14.00 – 17.30	NPP safety functions and safety objectives (IAEA and WENRA) – A. Madonna (ITER)
	Main safety requirements to be implemented in the design of a NPP - M. Gasparini, A. Madonna (ITER)

Thursday 23 rd February, 2017	
9.00 – 13.00	Safety conception of NPP and regulatory use of PSA – K. Horváth (HAEA)
	Feedback from Fukushima accident in the safety conception of NPP – K. Horváth (HAEA)
	Accidental Radiological consequences from a NPP - Dr. Khaled Debbabi, (STEG Tunisia)
13.00 – 14.00	Lunch
14.00 – 17.30	Practical Application

Tuesday 21 st February 2017	
9.00 – 13.00	Regulatory function in defining safety objectives, principles and requirements for NPP – M. Gregoric (ITER)
	Regulatory licensing process and licensing steps – M. Gregoric (ITER)
13.00 – 14.00	Lunch
14.00 – 17.30	External support to regulatory authority EU – A. Madonna (ITER)
	Conduct of inspections, reporting and use in the regulatory process – M. F. Ben Slimene, (Tunisian NCRP)
	Radiation protection requirements for facilities and environment – Dr. Hager Kamoun, (Tunisian CNRP)

Friday 24 th February, 2017	
9.00 – 13.00	Safety requirements for NPP RW management – K. Slavcheva (ITER)
	Decommissioning of nuclear facilities: strategy, approach and requirements - M. Dionisi (ISPRA), K. Slavcheva (ITER)
	Regulatory transparency – K. Slavcheva, A. Madonna (ITER)
13.00 – 14.00	Lunch
14.00 – 17.30	Course summary
	Questionnaire
	Feedback from trainees
	Training Minutes
	Certificates