



## 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 South - East Asia Region

**Bangkok – May 30 – June 03, 2016**

Grand Mercure Bangkok Fortune Hotel

1 Rachadaphisek Road - Fortune Town – Dindaeng - BANGKOK - THAILAND

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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 and practices.



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## Course Daily Program

Monday 30 <sup>th</sup> May 2016	
08.30 – 9.00	Registration
9.00 – 13.00	Welcome, Organizational Aspects, Training Objective, Training Program
	EU legal framework and infrastructure for Nuclear and Radiation Safety - A. Madonna (ITER)
	NPP safety functions and safety objectives (IAEA and WENRA) – A. Madonna (ITER)
13.00 – 14.00	Lunch
14.00 – 17.00	Roles and responsibilities of licensee and regulatory authority – A. Madonna (ITER)
	Main safety requirements to be implemented in the design of a NPP - M. Gasparini, A. Madonna (ITER)

Tuesday 31 <sup>st</sup> May 2016	
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)
	External support to regulatory authority in EU – M. Gregoric, K. Slavcheva (ITER)
13.00 – 14.00	Lunch
14.00 – 17.00	Regulatory inspection, inspector competence, attitude and enforcement actions - M. Gregoric (ITER)
	Conduct of inspections, reporting and use in the regulatory process – S. Sudprasert (OAP)
	Radiation protection requirements for facilities and environment – S. Phungamnil (OAP)

Wednesday 01 <sup>st</sup> June 2016	
9.00 – 13.00	Content of SAR for Nuclear facility - M. Gregoric (ITER)
	NRA management of licensing process and decision making - A. Madonna, M. Gregoric (ITER)
	Safety requirements for RW management – M. Dionisi (ISPRA), K. Slavcheva (ITER)
13.00 – 14.00	Lunch
14.00 – 17.00	Decommissioning of nuclear facilities: strategy, approach and requirements – M. Dionisi (ISPRA), K. Slavcheva (ITER)
	Regulatory transparency attitude – K. Slavcheva , A. Madonna (ITER)

Thursday 02 <sup>nd</sup> June 2016	
9.00 – 13.00	Regulatory review of SAR for a Nuclear facility – T. Angwongtrakul, P. Ampornrat (OAP)
	New regulatory challenges for new reactor design – K. Horváth (HAEA)
13.00 – 14.00	Lunch
14.00 – 17.00	Practical Application

Friday 03 <sup>rd</sup> June 2016	
9.00 – 13.00	Safety conception of NPP and regulatory use of PSA - K. Horváth (HAEA)
	Feedback from Fukushima accident – K. Horváth (HAEA)
13.00 – 14.00	Lunch
14.00 – 17.00	Course summary
	Questionnaire
	Opinion from trainees
	Training Minutes
	Certificates