



INSC Project MC.03/10 - EC Contract N°2011/261-5 85 - **LOT 1**

Training Course

Design safety and safety evaluation for NPP SAR

c/o JSI - Ljubljana November 19 – 23, 2012

darft rev 1. 29.08.12

Monday 9.00 – 17.30	Tuesday	Wednesday	Thursday	Friday
<ul style="list-style-type: none"> - Welcome - Organizational aspects - Training objective - Training program - EU Framework for NPP design safety objectives and requirements - Regulatory approach to define safety objectives & criteria for NPP 	<ul style="list-style-type: none"> - NPP safety principles - Defence in depth - NPP Safety functions - Safety systems (frontline and support systems) 	<ul style="list-style-type: none"> - Seismic Classification SSC - Environmental EQ - Seismic EQ - Identification of list of safety related "parts" of the NPP - Containment system 	<ul style="list-style-type: none"> - Protection from internal events (fire, flood, jet impingement, ...), - Protection from external events (natural and non natural), - Protection from Beyond design basis events - Consideration of SA in the design 	<ul style="list-style-type: none"> - NRA organization to address and perform a regulatory review of NPP SAR - Key aspects of NRA review of SAR for new NPP and use of PSA - Regulatory Interface with the licensee during SAR evaluation for licensing - Use of TSO support for SAR review
Lunch 12.45 – 14.00	Lunch	Lunch	Lunch	Lunch
<ul style="list-style-type: none"> - Safety design conception of a NPP: deterministic and probabilistic safety - Objective, structure and content of SAR - Different SAR for the different steps of the licensing process of a NPP 	<ul style="list-style-type: none"> - Safety criteria and requirements - Redundancy, independence, diversity,.... criteria and requirements - Safety Classifications of SSC 	<ul style="list-style-type: none"> - Practical application alternatives(*) 	<ul style="list-style-type: none"> - DBA Accident analysis and analysis or radiological consequences - BDBA Accident analysis and analysis or radiological consequence - Use of PSA during SAR regulatory review 	<ul style="list-style-type: none"> - Course summary - Course questionnaire - Opinion from trainees - Training Minutes

(*)

- (1) a review of a few pages of FSAR against a (simplified) set of acceptance criteria
- (2) a brainstorming session to develop and preliminary evaluate the events/hazards on a given site,
- (3) compare redundancy/diversity of safety systems of similar GEN II and GEN III plants based on system descriptions from FSAR
- (4) compare core melt management strategies in similar GEN II and GEN III plants based on system descriptions from FSAR
- (5) some kind of the back envelope calculation of time before core melt or uncovering of the spent fuel in the pit or similar.