



## Joint IAEA-ICTP Essential Knowledge Workshop on Nuclear Power Plant Design Safety-Updated IAEA Safety Standards

9 October - 20 October 2017

Venue, Leonardo da Vinci building, Euler lecture room

## PRELIMINARY PROGRAMME

## Joint IAEA-ICTP Essential Knowledge Workshop on Nuclear Power Plant Design Safety-Updated IAEA Safety Standards

	WEEK ONE: WORKSHOP COORDINATOR: YLLERA Javier, IAEA						
Time	Day 1 (Mon) -9 October	Day 2 (Tue) -10 October	Day 3 (Wed) -11 October	Day 4 (Thu) -12 October	Day 5 (Fri) -13 October	Time	
8;30-9.00	ARRIVAL REGISTRATION, Desk, Foyer, da Vinci bulding	7					
9:00-9.30	Welcome and Introduction of the Workshop and the participants - IAEA		Assessment of Major Systems - Reactor Core Michael Modro	Introduction to Safety Analysis (Scope, Deterministic and Probabilistic approaches) Michael Modro	Introduction to thermal hydraulicts; reactor physiscs, DBA - Michael - Modro	9:00-9.30	
9.30-10:30	Safety assessment. Purpose and scope: Introduction of relevant IAEA Safety Standards IAEA					9.30-10:30	
10:30-11:00	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break	10:30-11:00	
11:00-12:30	Requirements for NPP Design Safety principles and concepts Principal Technical Requirements IAEA	Design Basis. Postulated Initiating Events and Plant States IAEA	Assessment of Major Systems -Cooling Systems Michael Modro	Deterministic safety analyses: overview and design basis analyses - Michael Modro	Conservative vs Best Estimate - Sensitivity and uncetrainty analyses - Michael Modro	11:00-12:30	
12:30-14:00	Lunch	Lunch	Lunch	Lunch	Lunch	12:30-14:00	
14:00-15:30	Assessment of Site Characteristics Jose Sanchez Cabanero	Assessment of Internal Hazards Jose Sanchez Cabanero	Assessment of Major Systems - Containment Michael Modro	Postulated initiating events - Acceptance criteria Michael Modro	Probabilistic safety Assessment Overview and Techniques IAEA	14:00-15:30	
15:30-16:00	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break	15:30-16:00	
16:00-17:30	Assessment of Engineering Aspects Michael Modro	Assessment of External Hazards Jose Sanchez Cabanero	Assessment of Defence in Depth IAEA	Introduction to thermal hydraulicts; reactor physiscs, DBA - Michael Modro	Probabilistic Safety Assessment of external events Jose Sanchez Cabanero	16:00-17:30	
17:30-18:00	Discussions All	Discussions All	Discussions All	Discussions All	Discussions All	17:30-18:00	

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	WEEK TWO: WORKSHOP COODINATOR: HIRANUMA Naoki, IAEA					
Time	Day 6 (Mon) -16 October	Day 7 (Tue) -17 October	Day 8 (Wed) -18 October	Day 9 (Thu) -19 October	Day 10 (Fri) -20 October	Time
9.30-10:30	Opening for Week 2 IAEA Safety Standards on AM IAEA		Development of accident management preocedures and guidelines Ivica Basic	Determination of necessary plant instrumentation, equipment and materials lvica Basic	Overview of plant's emergency organization lvica Basic	9.00-10:30
10:30-11:00	Break	Break	Break	Break	Break	10:30-11:00
11:00-12:30	Progression of Severe Accidents Micheal Modro	Differences between AMGs for normal operation, shutfdown and spent fuel pools Ivica Basic	Transition from EOPs to SAMGs Ivica Basic	Verification and validation of AMGs Ivica Basic	SAMG-D Toolkit IAEA	11:00-12:30
12:30-14:00	Lunch	Lunch	Lunch	Lunch	Lunch	12:30-14:00
14:00-15:30	Progression of Severe Accidents (cont.) Micheal Modro	Identification of Plant Vulnerabilities Ivica Basic	Break out session on development of AMGs IAEA and Ivica Basic	National presentations 1 Participants	Wrapup IAEA	14:00-15:30
15:30-16:00	Break	Break	Break	Break	Break	15:30-16:00
16:00-17:30	Progression of Severe Accidents (cont.) Micheal Modro	Severe accident management strategies Ivica Basic	Breakout session Presentation of proposals for AMGs	National presentations 2 Participants		16:00-17:30
17:30-18:00	Discussion led by Michael Modro	Discussion led by Ivica Basic	Discussion led by IAEA	Discussion led by IAEA		17:30-18:00