

**Regional Training Course on
Safety Assessment to Assist Decision Making
ANL, Argonne, IL, USA (October 14-25, 2013)**

Tentative Calendar and Lectures - Week 1 Rev. 7 (as of 08-OCT 2013)

Time	Monday		Tuesday		Wednesday		Thursday		Friday	
	14 October 2013		15 October 2013		16 October 2013		17 October 2013		18 October 2013	
	Lecture Topic	Lecturer	Lecture Topic	Lecturer	Lecture Topic	Lecturer	Lecture Topic	Lecturer	Lecture Topic	Lecturer
8:30 AM	Welcome to ANL's NE Division: Joe Braun (ANL), Misho Dusic (IAEA); /// Site Safety Lecture	Jeff Ulliam	Areas of Safety Analysis: neutronic, thermal-hydraulic, structural, etc.	F. D'Auria	Safety Assessment of General Design Aspects- Single Failure Assessment, Redundancy/ Independence/Diversity, System Interactions and Dependencies	F. D'Auria	Introduction to Small and Modular Reactors (SMRs)	C. Kling	Overview of DSA in New U.S. Plants	C. Kling
9:30 AM	BREAK		BREAK AND Group Photo (Near Building Entrance)		BREAK		BREAK		BREAK	
10:00 AM	Deterministic Safety Analyses in the IAEA Safety Standards - changes following the Fukushima Accident as reflected in the IAEA Action Plan	M. Dusic	Deterministic Safety Analysis for DBA and BDBA: Conservative vs. Best Estimate Approach- Sensitivity and Uncertainty Analysis	F. D'Auria	User Effects	N. Cavlina	Introduction to Small and Modular Reactors (SMRs) -- Continuation (Q&A)	C. Kling	Overview of DSA in New U.S. Plants -- continuation, (Discussion, Q&A)	C. Kling
11:00 AM	Development of Severe Accident Management Guidelines (SAMGs)	M. Dusic	Extended BEPU Analyses	M. Dusic	Updating Safety Analyses Report	N. Cavlina	Event Classification	C. Kling	Case History of Decision Making at an NPP	V. Moiseytseva
12:00 PM	LUNCH		LUNCH		LUNCH		LUNCH		LUNCH	
1:00 PM	Use and Conduct of the Safety Assessment	F. D'Auria	Fundamentals of Plant Systems	R. Blomquist	Basis of Uncertainty Approaches	F. D'Auria	Application of DSA in Plant Event Analysis	N. Cavlina	Risk Issues in a Shutdown Plant	C. Kling
2:00PM	Computer Models in Licensing	N. Cavlina	Nuclear Safety, Licensing, and Regulation in the USA	J. Braun	Continued	F. D'Auria	Preventing Accidents at NPPs	M. Dusic	What happened at Fukushima?	J. Braun
3:00PM	BREAK		BREAK		BREAK		BREAK		BREAK	
3:15 PM	Introduction to DSA and PSA - Lecture 1	D. Grabaskas	Areas of Safety Analysis: Part 2 Additional Topics	F. D'Auria	DSA and PSA in the Decision Making Process	C. Kling	Safety Culture in Nuclear Facility Operations	J. Braun	Introduction to PSA -- Lecture 5	D. Grabaskas
3:30 PM										
4:00 PM	CP-1 The World's First Man-Made Nuclear Reactor- Musuem Visit	J. Braun	Introduction to DSA and PSA - Lecture 2	D. Grabaskas	Introduction to PSA -- Lecture 3	D. Grabaskas	Introduction to PSA -- Lecture 4	D. Grabaskas	Discussion of Week 1 Topics	All
4:30 PM	CP-1 T- Musuem Visit	J. Braun								
5:00 PM	ADJOURN		ADJOURN		ADJOURN		ADJOURN		ADJOURN	

**Regional Training Course on
Safety Assessment to Assist Decision Making
ANL, Argonne, IL, USA (October 15-26, 2012)
Tentative Calendar and Lectures - Week 2 Rev. 7 (As of 08-OCT 2013)**

Time	Monday 21 October 2013		Tuesday 22 October 2013		Wednesday 23 October 2013		Thursday 24 October 2013		Friday 25 October 2013	
	Lecture Topic	Lecturer	Lecture Topic	Lecturer	Lecture Topic	Lecturer	Lecture Topic	Lecturer	Lecture Topic	Lecturer
8:30 AM	L.3.1 Introduction to PSA	Zoltan, Kovacs, IAEA Expert, Relko Ltd., Slovakia	L.3.2.3 Data Analyses	IAEA-- John Preston	L.3.2.9 External Hazards PSA	Matt Bucknor/Dave Grabaskas ANL	L.3.6 Applications of PSA in Regulation	Mark Cunningham retired USNRC	L.3.8 PSA at US NPPs Living PSA: Applications to On- line Maintenance	Sam Falvo, Exelon
9:30 AM	(Cont.)	Zoltan, Kovacs, IAEA Expert, Relko Ltd., Slovakia	L.3.2.4 Analyses of Dependencies including CCF's	IAEA-- John Preston	(Cont.)	Matt Bucknor/Dave Grabaskas ANL	Continued	Mark Cunningham retired USNRC	(Cont.)	Sam Falvo, Exelon
10:30 AM	BREAK		BREAK		BREAK		BREAK		BREAK	
11:00 AM	L.3.2 Overview of Level 1 PSA	John Preston, IAEA Expert, UK	L.3.2.5 Human Reliability Analysis	IAEA- Zoltan Kovacs	L.3.2.10 Low Power and Shutdown PSA	IAEA-John Preston	L3.5 Integrated IRIDM	IAEA-John Preston	Feedback Session-Course	Joe, Dave, Participants
12:00 PM	LUNCH		LUNCH		LUNCH		LUNCH		Closing Ceremony-Certificate Presentation Artur, Joe, Participants	
1:00PM	3.2.1 Init. Events Analysis	IAEA-John Preston	L.3.2.6 Analysis of Level 1 PSA Results	IAEA-Zoltan Kovacs	L.3.2.11 PSA Software Overview/Demo	Artur Lyubarskiy, IAEA	L.3.3. C Level 2 PSA: Overview of Severe Accident Codes	Kacie Brunett ANL		
2:00PM	L.3.2.2. System Analysis	IAEA- Zoltan Kovacs	L.3.2.7-8 Internal Fires and Flood PSA (Part 1)	Matt Bucknor ANL	L.3.3. A Level-2 PSA: Interface with Level 1- PSA	Kacie Brunett ANL	L.3.4 Overview of Level 3 PSA	Kacie Brunett ANL	ADJOURN	
3:00 PM	BREAK		BREAK		BREAK		BREAK			
3:15 PM	L.3.2.2. System Analysis (Cont.)	IAEA- Zoltan Kovacs	L.3.2.7-8 Internal Fires and Flood PSA (Part 2)	Matt Bucknor ANL	L.3.3. B Level-2 PSA: Tasks Overview	Kacie Brunett ANL	L.3.7 PSA in the IAEA Safety Publications	Artur Lyubarskiy		
4:00 PM	Q & A Session	ALL	Q & A Session; Short Exercise	Participants' teams, Instructors	Regulatory View of Internal and External Events	Mark Cunningham retired USNRC	Q & A Session Exercise on PSA and IRIDM: 3 Teams	Participants' Teams, Instructors		
5:00 PM	ADJOURN		ADJOURN		ADJOURN		ADJOURN			