

**IAEA / ANL Training Course on
Essential Elements of Nuclear Security**

30 April – 11 May 2012

(Updated: 4/18/2012)

MONDAY 4/30/2012	TUESDAY 5/1/2012	WEDNESDAY 5/2/2012	THURSDAY 5/3/2012	FRIDAY 5/4/2012
9:00- Logistics 9:30 Welcome to ANL Welcome on Behalf of IAEA Course Introduction 9:30- Site Security Briefing 9:45 9:45- Site Health & Safety 10:15 Briefing	8:30- Identifying Nuclear 9:30 Security Concerns & Combating Nuclear Terrorism (A. Nilsson) 9:30- International Perspectives 10:15 on Nuclear and Radiological Security (A-M. Eriksson)	8:30- Nuclear Security Regime 10:00 Case Study (A. Nilsson)	8:30- Analysis of Strategic 9:30 Commodity Transfers (Export/Import Control) (P. Heine) 9:30- Information Security (M. 10:30 Kwiatkowski)	8:00- Overview of U.S. NRC 9:00 Security Activities (R. Skokowski) 9:00- Overview of Security 12:30 Activities: Guest Country Regulator, Specific Country Presentations
Break (10:15AM-10:45AM)	Break (10:15AM-10:45AM)	Break (10:00AM-10:30AM)	Break (10:30AM-11:00AM)	Break
10:15 Group Photo 10:45- Introduction of Participants 12:00	10:45- Proliferation & the Nuclear 11:45 Fuel Cycle (J. Taylor) 11:45- Nuclear Security Regime 12:30 Objectives and Essential Elements (A-M. Eriksson)	10:30- Understanding Risk 11:00 associated with Radiological Threats (A-M. Eriksson) 11:00- Performing a threat 11:45 assesment & define a DBT (A-M. Eriksson) 11:45- Vulnerability Assessment 12:30 (R. Johnston)	11:00- Security and Control of 11:45 Radioactive Material at Hospitals (R. Wagner) 11:45- Legal Shipments of 12:30 Nuclear & Radioactive Materials (A-M. Eriksson)	
Lunch (12:00 PM-1:00PM)	Lunch (12:30PM-1:30PM)	Lunch (12:30PM-1:30PM)	Lunch – (12:30-1:30PM)	Lunch (12:30PM-1:30PM)
1:00- Initial Exercise – Part I: 4:00 Organizational Structure 4:00- Laboratory Tour 5:30	1:30- International Legal 2:15 Instruments for Nuclear Security (A. Nilsson)	1:30- Physical Protection of 2:15 Nuclear Material & Nuclear Facilities (C. Roche)	1:30- Video on Safe Shipments 2:15 2:15- Security of Nuclear and 3:00 other Radioactive Materials during Transport (A-M. Eriksson)	1:30- International Safeguards & 2:30 Additional Protocol to Safeguards Agreement (A- M. Eriksson) 2:30- Accountancy & Control (C. 3:00 Roche)
	2:45- Legal and Regulatory 3:30 Infrastructure of Nuclear Security (A. Nilsson) 3:30- Nuclear Security Regime 5:00 Case Study (A. Nilsson)	2:15- Security of Radioactive 3:00 Sources (A-M. Eriksson) 3:00- Exercise on Security 5:00 Approaches 6:30 Dinner @ Gordon-Biersch Restaurant	3:00- Exercise on Shipment of 5:00 Radioactive Material	3:00- Exercise on Missing 5:00 Nuclear Material at a Facility

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Week 2

MONDAY 5/7/2012	TUESDAY 5/8/2012	WEDNESDAY 5/9/2012	THURSDAY 5/10/2012	FRIDAY 5/11/2012
8:30- 9:00 Radiation Detection Fundamentals (R. Klann & B. Micklich)	8:30- 9:30 Security Concerns for Radioactive Material & Border Security (E. Melamed)	8:30- 9:30 Emergency Medical Response Planning to Incidents (M. Cichon)	8:30- 9:30 Discussion of Final Tabletop Exercise	8:30- 9:30 Preparation Time
9:00- 10:00 Radiation Detection Systems (R. Klann & B. Micklich)	9:30- 10:30 Video on IAEA- "Watchdogs"	9:30- 10:15 Presentations on Initial Exercise – Part II: Updating Organizational Structure	9:30- 10:00 Relocation	10:00- 10:30 Tabletop Exercise – Small Group Presentation 1
			10:00- 3:45 Final Tabletop Exercise	10:30- 11:00 Tabletop Exercise-Small Group Presentation 2
Break (10:00AM-10:30AM)	Break (10:30AM-11:00AM)	Break (10:15AM-10:30AM)	Working Lunch	Break (9:30AM-10:00AM)
10:30- 11:30 Monitoring, Detecting & Measurement Equipment (F. Moore)	11:00- 12:00 Response to Criminal or Unauthorized Acts Involving Nuclear & Radioactive Material (L. Conti)	10:30- 12:30 Initial Exercise – Part III: Developing an NCMP		11:00- 11:30 Tabletop Exercise – Small Group Presentation 3
11:30- 12:30 Nuclear Security Framework for Main Public Events (MPE) (L. Conti)				11:30- 12:00 Tabletop Exercise – Group Presentation 4
				12:00- 12:30 Wrap-Up
Lunch (12:30PM-1:30PM)	Lunch (12:00PM-1:00PM)	Lunch (12:30PM-1:30PM)		Lunch (12:30PM-1:30 PM)
1:30- 2:15 ILLICIT Trafficking Data Base System (A-M Eriksson)	1:00- 1:45 Overview of Radiological Crime Scene Response (A-M. Eriksson)	1:30- 2:30 Methods of Emergency Response to Incidents Involving Nuclear and Radioactive Material (C. Patterson)	3:45- 5:15 Wrap-Up of Final Tabletop Exercise	1:30- 2:00 Plan IAEA Assistance Programs Related to Nuclear Security (A-M Eriksson)
2:45- 3:15 Discussion of Case Studies (A-M. Eriksson)	1:45- 2:30 Introduction to Nuclear Forensics (A-M. Eriksson)	"Emergency Response to Incidents" (C. Patterson)	5:15- 5:30 Instructions for Final Tabletop Exercise – Small Group Presentations	
3:15- 4:00 Role of Customs / Border Guards in Border Protection (A-M. Eriksson)				
4:00- 5:30 Exercise-Discovery of Nuclear Material by Police	3:00- 4:00 In-field Experiences (L. Conti)	3:00- 4:00 Tour of Argonne Fire Department and Display of Monitoring Equipment (F. Moore)	6:00 BBQ @ ALOFT	2:00- 2:30 Seminar Evaluation
	4:00- 5:00 Initial Exercise – Part II			
		4:00- 4:30 Final Exercise Briefing		2:30- 3:00 Award of Certificates, Concluding Remarks and End of Seminar