

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

3-14 October 2011

Week 1

MONDAY 10/03/2011	TUESDAY 10/04/2011	WEDNESDAY 10/05/2011	THURSDAY 10/06/2011	FRIDAY 10/07/2011
9:00- Logistics 9:45 Welcome to ANL Welcome on Behalf of IAEA Course Introduction 9:45- Site Security Briefing 10:15 10.45- Site Health & Safety 11.15 Briefing	8:30- Identifying Nuclear 9:30 Security Concerns & Combating Nuclear Terrorism 9:30- International Perspectives 10:15 on Nuclear and Radiological Security	8:30- Nuclear Security Regime 10:00 Case Study	8:30- Physical Protection of 9:15 Nuclear Material & Nuclear Facilities 9:15- Security of Radioactive 10:00 Sources	8:00- Overview of Security 12:00 Activities: Guest Country Regulator, Specific Country Presentations
Break (10:15AM-10:45AM)	Break (10:15AM-10:45AM)	Break (10:00AM-10:30AM)	Break (10:00AM-10:30AM)	Break
11:15- Group Picture 11:30 11:30- Introduction of Participants 12:30	10:45- Proliferation & the Nuclear 11:45 Fuel Cycle	10:30- Understanding Risk 11:00 associated with Radiological Threats 11:00- Performing a threat 11:45 assesment & define a DBT 11:45- Vulnerability Assessment 12:30	10:30- Security and Control of 11:15 Radioactive Material at Hospitals 11:15- Legal Shipments of 12:00 Nuclear & Radioactive Materials	
Lunch (12:30 AM-1:30PM)	Lunch (11:45AM-1:00PM)	Lunch (12:30PM-1:30PM)	Working Lunch – (12:00-1:00PM)	Lunch (12:00PM-1:30PM)
1:30- Initial Exercise – Part I 3:30 3:30- Laboratory Tour 5:00	1:00- Nuclear Security Regime 1:45 Objectives and Essential Elements 1:45- International Legal 2:30 Instruments for Nuclear Security	1:30- Analysis of Strategic 2:30 Commodity Transfers (Export/Import Control)	1:00- Video on Safe Shipments 1:45 1:45- Security of Nuclear and 2:30 other Radioactive Materials during Transport	1:30- International Safeguards 2:15 2:15- Accountancy & Control 3:00
Break	Break (2:30PM-3:00PM)	Break (2:30PM-3:00PM)	Break (2:30PM-3:00PM)	Break (3:00PM-3:30PM)
	3:00- Legal and Regulatory 3:45 Infrastructure of Nuclear Security 3:45- Roles and Responsibilities 4:30 of International-Level Law Enforcement Agencies 4:30- Nuclear Security Regime 5:00 Case Study	3:00- Information Security 4:00 4:00- Video- "Countdown to Zero" 5:00	3:00- Exercise on Shipment of 4:00 Radioactive Material 4:00- Overview of U.S. NRC 5:00 Security Activities	3:30- Additional Protocol to 4:00 Safeguards Agreement 4:00- Exercise on Missing 5:30 Nuclear Material at a Facility

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Week 2

MONDAY 10/10/2011	TUESDAY 10/11/2011	WEDNESDAY 10/12/2011	THURSDAY 10/13/2011	FRIDAY 10/14/2011
8:30- Radiation Detection 9:00 Fundamentals	8:30- Security Concerns for 9:30 Radioactive Material & Border Security	8:30- Emergency Medical 9:30 Response Planning to Incidents	8:30- Discussion of Final 9:30 Tabletop Exercise	8:30- Preparation Time 9:30
9:00- Radiation Detection 10:00 Systems	9:30- Video on IAEA- 10:30 "Watchdogs"	9:30- Methods of Emergency 10:15 Response to Incidents Involving Nuclear and Radioactive Material	9:30- Relocation 10:00	10:00- Tabletop Exercise – Small 10:30 Group Presentation 1
			10:00- Final Tabletop Exercise 3:45	10:30- Tabletop Exercise-Small 11:00 Group Presentation 2
Break (10:00AM-10:30AM)	Break (10:30AM-11:00AM)	Break (10:15AM-10:45AM)	Working Lunch	Break (9:30AM-10:00AM)
10:30- Monitoring, Detecting & 11:30 Measurement Equipment	11:00- Response to Criminal or 12:00 Unauthorized Acts Involving Nuclear & Radioactive Material	10:45- "Emergency Response to 11:15 Incidents"	3:45- Wrap-Up of Final Tabletop 5:15 Exercise	11:00- Tabletop Exercise – Small 11:30 Group Presentation 3
11:30- Nuclear Security 12:30 Framework for Main Public Events (MPE)		11:15- Initial Exercise – Part II 12:00	5:15- Instructions for Final 5:30 Tabletop Exercise – Small Group Presentations	11:30- Tabletop Exercise – Group 12:00 Presentation 4
				12:00- Wrap-Up 12:30
Lunch (12:30PM-1:30PM)	Lunch (12:00PM-1:00PM)	Lunch (12:00PM-1:00PM)	Lunch	Lunch (12:30PM-1:00 PM)
1:30- Assessment of Nuclear 2:15 Security Events at Borders	1:00- Overview of Radiological 1:45 Crime Scene Response	1:00- Tour of Argonne Fire 3:00 Department and Display of Monitoring Equipment		1:00- Plan IAEA Assistance 1:30 Programs Related to Nuclear Security
2:15- Illicit Trafficking Data Base 3:00 System	1:45- Introduction of Nuclear 2:30 Forensics	3:00- Initial Exercise – Part III 4:30		1:30- Seminar Evaluation 2:00
		4:30- Final Exercise Briefing 5:00		2:00- Award of Certificates, 2:30 Concluding Remarks and End of Seminar
Break (3:00PM-3:30PM)	Break (2:30PM-3:00PM)	Break	Break	Break
3:30- Discussion of Case Studies 4:15	3:00- In-field Experiences 4:00			
4:15- The Role of 5:00 Customs/Border Guards in Border Protection	4:00- Exercise on Illegal Nuclear 5:00 Material Discovered by Police			