

**International Atomic Energy Agency**  
**International Training Course on the Control of Nuclear Material in Use, Movement,**  
**and Storage**  
**COURSE AGENDA**  
**Bahadurgarh, India**  
**10-14 September, 2018**

Start	End	Topic/Module	By
		<b>Monday, September 10</b>	
1000	1030	Inaugural Session by Host Country	India
1030	1100	Presentation by Host Country on GCNEP	R.Kumar
<b>1100</b>	<b>1130</b>	<b><i>Coffee Break and Class Photographs</i></b>	
1130	1200	Course Overview: <ul style="list-style-type: none"> <li>• Opening speech- Course objective</li> <li>• Introduction of course instructors</li> <li>• Introduction of training participants</li> </ul>	A. Khamzayeva
1200	1230	Introduction to the Division of Nuclear Security	A. Khamzayeva
1230	1300	Session 1: Course Introduction	M. Giorgio
<b>1300</b>	<b>1400</b>	<b><i>Lunch break</i></b>	
1400	1500	Session 2: Comparison- NMAC for Security and Safeguards	A. Khamzayeva
1500	1545	Session 3: Identification and Categorization of Nuclear Material	M. Darweesh
<b>1545</b>	<b>1600</b>	<b><i>Coffee Break</i></b>	
1600	1700	<b>Exercise 1: Categorization of Nuclear Material</b>	All
<i>1700</i>	<i>1715</i>	<i>Lectures Conclude</i>	
		<b>Tuesday, September 11</b>	
0945	1000	Review of the Previous Day- <i>Quiz</i>	A. Khamzayeva
1000	1030	Session 4: Introduction to Nuclear Material Accounting and Control (NMAC) for NS	H. Brock
<b>1030</b>	<b>1045</b>	<b><i>Coffee Break</i></b>	

1045	1130	Session 5: Introduction to Nuclear Material Control	A. Khamzayeva
1130	1200	Session 6: Managing the Control System for Nuclear Material	M. Darweesh
1200	1215	Case Study 1 - "Item with No Record" - Mistakes that Provided Opportunity for Unauthorized Removal of Nuclear Material	H. Brock
1215	1245	Session 7: Control of Insider Access to Nuclear Material, Equipment, and Data	A. Khamzayeva
<b>1245</b>	<b>1345</b>	<b>Lunch Break</b>	
1345	1445	<b>Exercise 2: Control of Access to Nuclear Material during Emergencies</b>	All
1445	1545	Session 8: Nuclear Material Movements	M. Giorgio
1545	1630	<i>Presentation by Host Country</i>	India
1630	1645	<i>Coffee Break</i>	
1645	1705	Case Study 2 - "Missing Fuel Rod Parts" - Mistakes that Provided Opportunity for Unauthorized Removal of Nuclear Material	H. Brock
1705	1745	Session 9: Material Containment and Surveillance	M. Darweesh
1745	1800	Lectures Conclude	
		<b>Wednesday, September 12</b>	
0945	1000	Review of the Previous Day- <i>Quiz</i>	A. Khamzayeva
1000	1045	<b>Exercise 3: Nuclear Material Surveillance</b>	All
<b>1045</b>	<b>1100</b>	<b>Coffee Break</b>	
1100	1145	Session 10: Tamper-Indicating Devices (TIDs)	A. Khamzayeva
1145	1215	<b>Exercise 4: Tamper Indicating Device (TID) Selection</b>	All
1215	1245	Case Study 3 - "Use of Unproven TIDs" - Mistakes that Provided Opportunity for Unauthorized Removal of Nuclear Material	H. Brock
<b>1245</b>	<b>1330</b>	<b>Lunch Break</b>	
1345	1900	<i>Half day excursion, city tour</i>	All

1930		<i>Reception hosted by IAEA</i>	All
		<b>Thursday, September 13</b>	
0945	1000	Review of the Previous Day- <i>Quiz</i>	A. Khamzayeva
1000	1045	Session 11: Nuclear Material Item Monitoring	M. Giorgio
<b>1045</b>	<b>1100</b>	<b><i>Coffee Break</i></b>	
1100	1130	<b>Exercise 5: Item Monitoring Sample Size</b>	All
1130	1200	Session 12: Nuclear Material Process Monitoring	M. Giorgio
1200	1240	<b>Exercise 6: Process Monitoring</b>	All
1240	1300	Case Study 4: "NMAC Discovers Leak of Radioactive Liquid at THORP, Sellafield Plant, UK" – Mistakes that Provided Opportunity for Unauthorized Removal of Nuclear Material	H. Brock
<b>1300</b>	<b>1400</b>	<b><i>Lunch Break</i></b>	
1400	1435	Session 13: Response to Irregularities in Nuclear Material Control	A. Khamzayeva
1435	1500	Case Study 5 - "Investigation of an Excessive MUF" - Mistakes that Provided Opportunity for Unauthorized Removal of Nuclear Material	H. Brock
1500	1530	Session 14: Evaluation of Nuclear Material Control	M. Darweesh
1530	1600	Case Study 6 – "Mistaken Shipment" - Mistakes that Provided Opportunity for Unauthorized Removal of Nuclear Material	A. Khamzayeva
<b>1600</b>	<b>1615</b>	<b><i>Coffee Break</i></b>	
1615	1715	<b>Exercise 7: Performance Testing Nuclear Material Controls</b>	All
		<b>Friday, September 14</b>	
0945	1000	Review of the Previous Day- <i>Quiz</i>	B. Khamzayeva
1000	1030	Session 15: Integration with Physical Protection Systems	M. Darweesh
1030	1100	<i>Presentation by Host Country</i>	India
<b>1100</b>	<b>1115</b>	<b><i>Coffee Break</i></b>	
1115	12:00	Final Quiz- Review of the Course	All

<b>12:00</b>	<b>13:00</b>	<b><i>Closing Ceremony- Certificates</i></b>	
<b>1300</b>	<b>1400</b>	<b><i>Lunch Break</i></b>	
		Ajourn	

Instructors:

Assel Khamzayeva, IAEA  
Moustafa Darweesh, Egypt  
Maurice Giorgio, France  
Heidi Brock, US