



EUROPEAN COMMISSION  
 JOINT RESEARCH CENTRE  
 Nuclear Safety & Security Directorate  
 Nuclear Safeguards & Security Department  
 Digital Systems for Nuclear Safeguards and  
 Non-Proliferation Unit

# 22<sup>nd</sup> edition of ESARDA Course

April 15<sup>th</sup>-19<sup>th</sup>, 2024, Via Video Conference (MS TEAMS)



Mon., April 15 <sup>th</sup>		Tue., April 16 <sup>th</sup>		Wed., April 17 <sup>th</sup>		Thu., April 18 <sup>th</sup>		Fri., April 19 <sup>th</sup>	
08:45 09:00	Connection to the course	08:45 09:00	Quiz on Monday lectures	08:45 09:00	Quiz on Tuesday lectures	08:45 09:00	Quiz on Wednesday lectures	08:45 09:00	Quiz on Thursday lectures
09:00 10:00	<b>Opening</b> - U. Engelmann, JRC G Director - M. Lahti, ESARDA President - K. Abbas, ESARDA Course Director	09:00 09:45	Safeguards and Nuclear Export Control Arrangements, M. Tarvainen, MJT, FI	09:00 09:45	Nuclear Trade Regulation, Q. Michel (QM), Liege University, BE	09:00 09:45	Monitoring Containment/Surveillance, P. Funk, IRSN, FR	09:00 09:45	Information Collection and Analysis, J. Baute, Consultant, AT
10:00 10:45	History of Non-Proliferation, J. Vidaurre-Henry, Consultant, AT	09:45 10:30	French NMAC, L. Roussel, ORANO, FR	09:45 10:15	Overview of the NSG's controls in the EU DU regulation and Model AP, F. Sevini (FS), EC JRC, IT	09:45 10:30	On-site Inspection, C. Kröger-Negojă, EC ENER, LU	09:45 10:30	Satellite Imagery, P. Struzka, SATCEN, ES
10:45 11:15	Virtual Group Photo and Break	10:30 10:45	Break	10:15 10:30	Break	10:30 10:45	Break	10:30 10:45	Break
11:15 12:00	EURATOM, Historical Facts, M. Gerlini, Siena University, IT	10:45 12:15	Group Exercise 1, L. Van den Durpel	10:30 11:15	NDA I: Gamma-Ray Spectrometry, K. Abbas, EC JRC Ispra, IT	10:45 11:30	Statistical Accounting, R. Bencardino, EC JRC, IT	10:45 11:30	State Level Safeguards, J. Dahlberg, IAEA, AT
12:00 12:45	Nuclear Material & Facilities Subject to Safeguards, G. Janssens-Maenhout, EC JRC Ispra, IT			11:15 12:00	NDA II: Neutron Counting, P. Peerani, Consultant, IT	11:30 12:30	- Legal Instruments Implementing NPT, L. Rockwood, Consultant, AT - Presentation of Group Exercise 2	11:30 12:15	Japan's State System for Accounting for and control of Nuclear Material (SSAC), T. Terasaki, JSGO NRA, JP
12:45 14:00	Break	12:15 13:30	Break	12:00 13:15	Break	12:00 13:00	Break	12:15 13:45	Break
14:00 14:45	Small Modular Reactors G. Renda, EC JRC, IT	13:30 14:15	Virtual Lab Visit 1 V. Sequeira, EC JRC, IT	13:15 14:00	Virtual Lab Visit 2 K. Abbas, EC JRC, IT R. Rossa, SCK CEN, BE	13:00 13:45	A Fast-Spectrum Pool-Type Research Irradiation Facility, MYRRHA Project, R. Rossa, SCKCEN, BE	13:45 14:00	Quiz on morning lectures
								14:00 15:00	<b>Closing</b> - Course Evaluation - Closing Addresses
14:45 15:45	- Nuclear Fuel Cycle, L. Van den Durpel, Nuclear-21.Net, BE - Presentation of Group Exercise 1	14:15 15:00	ABACC Nuclear Safeguards Implementation Experience S. Fernandez Moreno, ABACC, BR	14:00 14:45	DA: Destructive Assay in Safeguards, K. Toth, EC JRC Geel, BE	13:45 15:45	Group Exercise 2, L. Rockwood		
15:45 16:00	Break	15:00 15:15	Break	14:45 15:00	Break	15:45 16:00	Break		
16:00 16:45	Nuclear Material Accounting and Control (NMAC) principles, B. O'Hagan/A. Dresser, Sellafield, UK	15:15 16:00	Radionuclide Monitoring in the Environment, M.B. Kalinowski, Consultant, AT	15:00 15:45	Nuclear Forensics, M. Wallenius, EC JRC Karlsruhe, DE	16:00 16:45	Physical Protection, C. Crawford, ORNL, US		