



**EVT2105850, Technical Meeting on Back End of the Fuel Cycle Considerations
for Small Modular Reactors, 20-23 September 2022
M7 (M building) Vienna International Centre**

Tuesday, 20 September 2022			
9:30-9:45	1.	Welcome Address - Dir NEFW - SH NFCMS	Ms Olena Mykolaichuk (IAEA) Mr Clément Hill (IAEA)
9:45-10:05	2.	- Opening remarks Scientific Secretary - Overall Objectives of the Technical Meeting - Participating Organizations from Member States - Chairperson of the TM and Adoption of the Agenda	Ms Amparo González (NFCMS, IAEA)
IAEA Presentations			
10:05-10:25	3.	SMRs Booklet	Hadid Subki (NPTDS, IAEA)
10:25-10:45	4.	Agency-wide Platform on SMRs and Their Applications	Stefano Monti (NPTDS, IAEA)
10:45-11:15 Coffee Break			
11:35-11:55	5.	IAEA On-going Activities on Spent Fuel Management	Amparo González (NFCMS, IAEA)
11:55-12:15	6.	Information on the IAEA TM on Back End Opportunities and Challenges for Spent e-ATFs Management (June 2022)	David Hambley (NNL, UK)
12:15-13:45 Lunch Break			
13:45-14:15	7.	Consideration of Non-Water Cooled Reactors and SMRs in the IAEA Safety Standards	Paula Calle (NSNI, IAEA)
14:15-14:35	8.	Security Considerations for Back-end of Nuclear Fuel Cycle for SMRs	Tariq Majeed (NSNS, IAEA)
14:35-14:55	9.	Safeguards Considerations for SMR Fuel Cycles	Kerrin Swan (SGCP, IAEA)
14:55-15:25	10.	CRP on the Economic Appraisal of SMRs	Saied Dardour (PES, IAEA)
15:25-15:55 Coffee Break			
15:55-16:15	11.	Transport Safety and Back End of SMR Fuel Cycle	Shazia Fayyaz (NSRW, IAEA)
International Perspectives			
16:15-16:35	12.	Update on EC/JRC On-going Activities on the Backend of the Fuel Cycles for SMRs	Concetta Fazio, EC/JRC (20')
16:35-16:55	13.	Update on OECD/NEA On-going Activities on the Backend of the Fuel Cycles for SMRs	Rebecca Tadesse (OECD/NEA) (20')
16:55-17:15	14.	ERDO Association (TBD)	Charles McCombie (ERDO) (20')
17:15-17:30	15.	Wrap up of the day	Chairperson
Adjourn 17:30h			

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Wednesday, 21 September 2022			
Member State Presentations			
9:20-9:35	16.	Safety Implications on the Back End of the Fuel Cycle for SMRs	Surik Bznuni (Armenia) (15')
9:35-9:45	17.	Fuel Cycle Considerations for WWR-SM Research Reactor	Azizbek Boltabaev (Uzbekistan) (10')
9:45-9:55	18.	Direct Recycling of SMR Spent Fuel for Uranium Utilization Improvement and Reduction of High Level Nuclear Waste	Nader M.A Mohamed (Egypt) (10')
9:55-10:05	19.	Design Extension Conditions for Spent Fuel Storage at the PWR NPP Krško	Tomi Živko, (Slovenia) (10')
10:05-10:15	20.	The process of decarbonization of the domestic power industry in Poland using SMR reactors - issues related to spent fuel as one of the parameters determining the choice of technology	Miskiewicz Agnieszka (Poland) (10')
10:15-10:25	21.	Considerations and Perceptions for Nuclear Fuel Cycle Back End Related to the SMRs under Consideration in Jordan	Fatmah Al Momani (Jordan) (10')
10:25-10:55 Coffee Break			
10:55-11:05	22.	Back End of the Fuel Cycle Considerations for Small Modular Reactors	Andrea Salvatores (CEA, France) (10')
11:05-11:20	23.	Advanced nuclear reactors: what about the back end? With a focus on reprocessing/recycling or treatment of various fuel types	Liberge Renaud (Orano, France) (15')
11:20-11:35	24.	Molten Salt Reactor Technology Opportunities of molten salt fuel for actinides management	Vincent Pascal (Orano, France) (15')
11:35-11:50	25.	Integration of MSRs in LW-SMR fleets to close their fuel cycle and/or manage waste	Isabelle Morlaes (Orano, France) (15')
11:50-12:05	26.	Application of a graded approach to the concept of fuel recycling	Olivier Gregoire (MoltexEnergy, Canada) (15')
12:05-13:20 Lunch Break			
13:20-13:45	27.	Finnish Perspectives on SMR Back End of the Fuel Cycle	Ville Koskinen (STUK, Finland) Tim Schatz (VTT, Finland) (25')
13:45-14:05	28.	Managing Fuel from SMRs: UK Framework and HTGR Gap Analysis <i>(Moved to Thursday)</i>	NNL, UK (20')
14:05-14:15	29.	TRISO Fuel Management Depending on the Choice of the Fuel Cycle—research currently conducted at INCT in Poland <i>(Moved to Thursday)</i>	Katarzyna Kiegiel, (Poland) (10')

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14:15-14:35	30.	Fuel Cycle Scenarios and Back-End Technologies of HTGR in Japan <i>(Moved to Thursday)</i>	IAEA, Japan (20')
14:35-14:50	31.	Deconsolidation of HTR-10 Irradiated Fuels & Measurement of Burnup for SFE Storage <i>(Moved to Thursday)</i>	Xiaotong Chen (China) (15')
14:50-15:15 Coffee Break			
15:15-15:35	32.	The Anita Program and SMR Spent Fuel Management from the Swedish Perspective	Kyle Johnson (Sweden) (20')
15:35-15:55	33.	Challenges of Small Modular Reactor Used Fuel Management in Canada	George Xu, Blair P. Bromley (CNL, Canada) (20')
15:55-16:15	34.	Overview of the U.S. DOE's Office of Spent Fuel and Waste Disposition Activities	Jorge Narvaez, Natalia Saraeza, Stephen Kung (DoE, USA) (20')
16:15-16:30	35.	Progress on Considering the Back End of the Fuel Cycle for Small Modular Reactors	Stuart Arm (PNNL, USA) (15')
16:30-16:45	36.	Investigations into Back End of the Nuclear Fuel Cycle (BENFC) Issues for Advanced Reactor (AR) Fuels and Accident Tolerant Fuels (ATF)	Ramon Pulido (SNL, USA) (15')
16:45-17:00	37.	Evaluation of Advanced Reactor Spent Fuel Management Facility Deployment	Milos Atz (ANL, USA) (15')
17:00-17:15	38.	Opportunities to Optimize Small Modular Reactor (SMR) Used Nuclear Fuel Management in the United States	Rod McCullum (NEI, USA) (15')
17:15-17:30	39.	Back End of the Fuel Cycle Considerations for the CAREM – the Argentinian Small Modular Reactor <i>(Moved to Thursday)</i>	CNEA, Argentina (15')
17:30-17:40	40.	Wrap up for the day	
Adjourn 17:40			

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Thursday, 22 September 2022			
Member State Presentations			
9:15-9:35	41.	Romanian strategy on safe management of SNF and RW, including the new projects SMR and Generation IV	Romania (20')
9:35-9:50	42.	Advanced nuclear reactors: what about the back end? Focus on spent fuel storage and transportation for various fuel types	France, Orano (15')
9:50-10:10	43.	Transport for Small Modular Reactor Back End Fuel Cycle	Nuclear Transport Solutions, UK (20')
10:10-10:25	44.	Back End of the Fuel Cycle Considerations for the CAREM - the Argentinian Small Modular Reactor	CNEA, Argentina (15')
10:25-10:55 Coffee Break			
10:55-11:15	45.	Managing Fuel from SMRs: UK Framework and HTGR Gap Analysis	NNL, UK (20')
11:15-11:25	46.	TRISO Fuel Management Depending on the Choice of the Fuel Cycle - research currently conducted at INCT in Poland	Katarzyna Kiegiel, (Poland) (10')
11:25-11:45	47.	Fuel Cycle Scenarios and Back-End Technologies of HTGR in Japan	JAEA, Japan (20')
11:45-12:00	48.	Deconsolidation of HTR-10 Irradiated Fuels & Measurement of Burnup for SFE Storage	Xiaotong Chen (China) (15')
12:00-13:00 Lunch Break			
13:00-13:15	49.	Break Out Session Objectives and Materials	Ms Amparo González (NFCMS, IAEA)
Break Out Sessions (Please, go to your assigned Room) M0E13, M0E15, M0E16			
13:25-15:00	50.	3 Working Parallel Sessions per SMR Technology (LWRs, HTGRs, ARs+MSRs) to identify and discuss gaps/challenges/opportunities for implementing Back End of the Fuel Cycle of SMR Technologies	All
15:00-15:30 Coffee Break (All back to M7 or main on-line session)			
15:30-17:30	51.	Summary of discussions from each per Working Team (15' each) on: <ul style="list-style-type: none"> - LWRs - HTGRs - ARs + MSRs General discussion on cross-cutting challenges/issues/opportunities	All
Adjourn 17:30			

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Friday, 23 September 2022			
General Discussion on TM Findings and Member States' Recommendations			
9:15-10:45	52.	Review of discussions during TM and Break Out Sessions on gaps/challenges/opportunities for implementing Back End of the Fuel Cycle of SMR Technologies General Discussion on cross-cutting challenges/issues/opportunities	Chairperson to lead All
10:45-11:15 Coffee Break			
Discussion on potential future IAEA and TM Conclusions			
11:15-13:00	53.	Discussion on potential future IAEA activities, collaborations and path to move forward Conclusions and Closing Session	Chairperson to lead All
Adjourn 13:00			