International Conference on the Management of Spent Fuel from Nuclear Power Plants:

Meeting the Moment

10 – 14 June 2024

PROGRAMME

Organized by the International Atomic Energy Agency (IAEA)

In cooperation with

Nuclear Energy Agency of the Organisation for Economic Co-operation and Development European Commission World Nuclear Association World Nuclear Transport Institute

IAEA Headquarters Vienna, Austria

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Location of the Event:

International Atomic Energy Agency Vienna International Centre (VIC) Building C, Board Room C
Wagramer Strasse 5

A-1400 Vienna, Austria Tel.: (+43 1) 2600 21330

Working Language: English

Resolutions:

No resolutions may be submitted for consideration on any subject; no votes will be taken.

IAEA Mobile Conference Application



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The functions and features of the App for smartphones and tablets will be used for various purposes during the event:

View an up-to-date programme
 Check floor map of the sessions and exhibitors
 Read abstracts and full-papers of speakers
 Participate in voting during sessions
 Raise questions to speakers during session
 Send message to other participants
 Receive announcements via push-notification

If you have questions or require assistance on the App, please contact the Registration Desk.

Track # and Abbreviation	Full Track Title
1. NAT	National Strategies for Spent Fuel Management
2. STO	Storage of SNF and Vitrified HLW and Subsequent Transportability
3. TRA	Transportation in the Back End of the Fuel Cycle
4. REC	Recycling of Spent Fuel
5. DIS	Disposal of SNF, HLW and Other Waste Forms in Deep Geological Repositories (DGR)
6. ADV	Impacts of Advanced Nuclear Energy Systems on the Back End of the Fuel Cycle
7. INT	Achieving Integrated Spent Fuel Management

TIMETABLE

Monday, 10 June 2024

Time	Session No.	Session Title / Break	Venue
09:00-10:30		Opening Session	Board Room C
10:30–11:00		Coffee/Tea Break	C04 Exhibition Area
11:00–13:15	P1 NAT	Panel on National Strategies for Spent Fuel Management (I)	Board Room C
13:15–14:45		Lunch Break	
14:45–16:00	P2 NAT	Panel on National Strategies for Spent Fuel Management (II)	Board Room C
16:00–16:30	PS1 NAT	Poster Session 1 National Strategies for Spent Fuel Management Break	C04 Exhibition Area & C0454
16:30–18:30	6.1 ADV	IMPACTS OF ADVANCED NUCLEAR ENERGY SYSTEMS ON THE BACK END OF THE FUEL CYCLE	Board Room C
		R&D for Advanced Reactors Relevant to the Back End Fuel Cycle	
18:30–20:00		Official Reception	4th Floor – C-Building

Tuesday, 11 June 2024

Time	Session No.	Session Title / Break	Venue
08:30–10:30	6.2 ADV	IMPACTS OF ADVANCED NUCLEAR ENERGY SYSTEMS ON THE BACK END Board Room C OF THE FUEL CYCLE	
		Analysis of Impact of Advanced Reactors on the Back End Fuel Cycle	
10:30–11:00	PS6 ADV	Poster Session 6 Impacts of Advanced Nuclear Energy Systems on the Back End of C04 Exhibition Area & the Fuel Cycle	
		Coffee/Tea Break	
11:00–12:40	2.1 STO	STORAGE OF SNF AND VITRIFIED HLW AND SUBSEQUENT TRANSPORTABILITY	Board Room C
		Spent Fuel Characterization	
12:40–14:00		Lunch Break	
12:50–13:50	SE 1	Side Event 1:	Board Room C
		The French Fuel Cycle: An Integrated System for a Sustainable Low-Carbon Energy	
		Sponsored by France	
14:00–15:40	2.3 STO	STORAGE OF SNF AND VITRIFIED HLW AND SUBSEQUENT TRANSPORTABILITY	Board Room C
		Country Overview	
15:40–16:00	PS2.1 STO	Poster Session 2.1 Storage of SNF and Vitrified HLW and Subsequent Transportability	C04 Exhibition Area & C0454
		Break	
16:00–17:20	4.1 REC	RECYCLING OF SPENT FUEL	Board Room C
		Near Term Opportunities	
17:20–18:40	4.2 REC	RECYCLING OF SPENT FUEL	Board Room C
		Future Forward	

Wednesday, 12 June 2024

Time	Session No.	Session Title / Break	Venue
08:30–10:30	2.2 STO	STORAGE OF SNF AND VITRIFIED HLW AND SUBSEQUENT TRANSPORTABILITY Cladding Behaviour	Board Room C
10:30–11:00	PS4 REC	Poster Session 4 Recycling of Spent Fuel Coffee/Tea Break	C04 Exhibition Area & C0454

Time	Session No.	Session Title / Break	Venue
11:00–12:40	2.4 STO	STORAGE OF SNF AND VITRIFIED HLW AND SUBSEQUENT Board Room C TRANSPORTABILITY	
		New Design Application	
12:40–14:00		Lunch Break	
14:00–16:00	P3	Panel on Navigating Stakeholders Engagement: Sharing Insights and Lessons Learned in Spent Fuel Management Strategy Implementation in Member States	Board Room C
16:00–16:30	PS2.2 STO	Poster Session 2.2 Storage of SNF and Vitrified HLW and Subsequent Transportability Break	C04 Exhibition Area & C0454
16:30–18:30	5.1 DIS	DISPOSAL OF SNF, HLW AND OTHER WASTE FORMS IN DEEP GEOLOGICAL REPOSITORIES (DGR) Disposal Strategies and Implementation	Board Room C

Thursday, 13 June 2024

Time	Session No.	Session Title / Break	Venue
08:30–10:30	5.2 DIS	DISPOSAL OF SNF, HLW AND OTHER WASTE FORMS IN DEEP GEOLOGICAL Board Room C REPOSITORIES (DGR)	
		Technical/Scientific Aspects of Disposal	
10:30–11:00	PS5 DIS	Poster Session 5 Disposal of SNF, HLW and Other Waste Forms in Deep Geological Repositories (DGR) Coffee/Tea Break	C04 Exhibition Area & C0454
11:00–13:00	P4	Panel on Innovation and Integration: Approaches for Managing Spent Fuel from Advanced Reactors (e.g. SMRs,)	Board Room C
13:00–14:20		Lunch Break	
13:10–14:10	SE 2	Side Event 2: Meeting the Moment: Paving the Way for Tomorrow's SFM Workforce Co-organised by NEI, IYNC, IAEA-WiN, sponsored by NEI (United States of America)	Board Room C
14:20–15:40	7.1 INT	ACHIEVING INTEGRATED SPENT FUEL MANAGEMENT National Approaches for Integrated Spent Fuel Management Strategies	Board Room C
15:40–16:10	PS7 INT	Poster Session 7 Achieving Integrated Spent Fuel Management Break	C04 Exhibition Area & C0454
16:10–17:50	7.2 INT	ACHIEVING INTEGRATED SPENT FUEL MANAGEMENT Benefits of Holistic Approach to Current and Future Fuel Cycles	Board Room C

Friday, 14 June 2024

Time	Session No.	Session Title / Break	Venue
08:30–10:10	3.1 TRA	TRANSPORTATION IN THE BACK END OF THE FUEL CYCLE Board Room C National Experiences Statement	
10:10–10:35		Coffee/Tea Break	C04 Exhibition Area
10:35–11:55	3.2 TRA	TRANSPORTATION IN THE BACK END OF THE FUEL CYCLE Current and Future Challenges	Board Room C
12:00–13:00		Closing Session	Board Room C

MONDAY, 10 JUNE 2024

09:00-10:30 OPENING SESSION

Board Room C

Name	Designating Member State/Organization	Title
R.M. Grossi	Director General IAEA (International Atomic Energy Agency)	Opening Address
W.D. Magwood	Director General OECD/NEA (Organisation for Economic Cooperation and Development - Nuclear Energy Agency)	Opening Address
S. Bilbao y León	Director General WNA (World Nuclear Association)	Opening Address
U. Engelmann	Director for Nuclear Safety and Security JRC-EC (Joint Research Centre- European Commission)	Opening Address
P. Buchan	Managing Director of Shipping NTS (Nuclear Transport Solutions) and Board Member WNTI (World Nuclear Transport Institute)	Opening Address
J.A. Gago	Conference Chairman, Spain	Opening Address
A. González-Espartero	Scientific Secretary, IAEA	Administrative Remarks
10:30–11:00 Coffee/Tea Break		

MONDAY, 10 JUNE 2024

11:00-13:15 PANEL 1 Panel on National Strategies for Spent Fuel Management (I)

Moderator: S. Bilbao y León, WNA Board Room C

Time	Name	Designating Member State/Organization	Title
11:00–11:05	S. Bilbao y León	WNA	Remarks by the moderator
11:05–11:15	T. Manneville	French General Directorate for Energy and Climate, France	French Strategy for Spent Fuel Management
11:15–11:25	T. Fukuda	Nuclear Regulation Authority, Japan	Status of Spent Fuel Management in Japan
11:25–11:35	T. Klomberg	Ministry of Infrastructure and Water Management, Kingdom of the Netherlands	Spent Fuel and Radioactive Waste Management in the Kingdom of the Netherlands
11:45–11:55	HJ. Park	Institute for Korea Spent Nuclear Fuel, Korea, Republic of	Status and Prospects of the SNF Management in Korea
11:55–12:05	T. Juurmaa	Nuclear Decommissioning Authority, United Kingdom	Nuclear Decommissioning Authority's Strategy Development (ID#81)
12:05–12:15	J. Lubinski	Nuclear Regulatory Commission, United States of America	The National Programme in the United States – The Regulatory Perspective
12:15–13:15	Q&A and Discussion		
13:15–14:45	Lunch Break		
14:45–16:00	PANEL 2 Panel on National Strategie	es for Spent Fuel Management (II)	Board Room C
Moderator:	H. Wanner, Switzerland		

Time	Name	Designating Member State/Organization	Title
14:45–14:50	H. Wanner	Switzerland	Remarks by the moderator
14:50–15:00	B. Nős	PURAM, Hungary	Management of Spent Nuclear Fuel in Hungary
15:00–15:10	U. Dani	Bhabha Atomic Research Centre, India	Management of Spent Nuclear Fuel in India – Experience, Challenges and Way Forward
15:10–15:20	M. Shoaib	Pakistan Atomic Energy Commission, Pakistan	National Strategy and Storage of Spent Fuel in Pakistan (ID#19)
11:35–11:45	B. Sośnik	Polskie Elektrownie Jądrowe, Poland	Spent Fuel Management in Poland
15:30–16:00	Q&A and Discussion		
16:00–16:30	Poster Session 1 NAT		

Break

SESSION 6.1 ADV: IMPACTS OF ADVANCED NUCLEAR ENERGY SYSTEMS ON THE BACK END OF THE FUEL CYCLE 16:30-18:30 R&D for Advanced Reactors Relevant to the Back End Fuel Cycle

Board Room C

Chairpersons: G. Xu, Canada

N.A. Abdelraheim, Egypt

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
16:30–16:50	26	X. Wang	Canada	Characterization of Spent Fuel for Selected Small Modular Reactors and Implications for the Back End Fuel Cycle
16:50–17:10	88	PE. Dufour	France	YGE Challenge Winner A Tool to Estimate Isotopic Evolution for Actinides Transmutation Dedicated to Fast Molten Salt Reactors: A Comparative Study of Evolving In-core Key Parameters for the Preliminary Design of a Fast Molten Salt Reactor (F-MSR)
17:10–17:30	51	A. van Heek	Belgium	Assessing the Potential for Molten-Salt Reactor (MSR) Technology in EU's Sustainable Nuclear Energy Futures
17:30–17:50	37	MS. Chenaud	France	The French R&D Collaborative Project ISAC on Fast MSR Dedicated to Actinides Transmutation
17:50–18:10	142	T. Boyce	United States of America	NRC Research Activities in Spent Fuel Storage and Management of Advanced Fuels for Advanced Reactors
18:10–18:30	21	B.P. Zlobenko	Ukraine	The Implementation of SMR and the Back End Issue of the Fuel Cycle in Ukraine
18:30–20:00	Official Red	ception, 4th Floor – C	-Building	

Poster Presentations

16:00–16:30 POSTER SESSION 1 NAT: NATIONAL STRATEGIES FOR SPENT FUEL O MANAGEMENT

C04 Exhibition Area & C0454

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
31	A. Casteletti	Argentina	The Challenge of Implementing a Geological Final Disposal System in Argentina
83	D.A El-Desokey	Egypt	Egyptian Strategy for Spent Nuclear Fuel Management
46*	A.M. Dima, G.M. Litescu	Romania	Radioactive Waste and Spent Nuclear Fuel Management Taking into Account the Development and Expansion of Nuclear Programme in Romania
136	D.W. Shao , Y.Y. Sungita	United Republic of Tanzania	National Legislation for the Management of Spent Fuel in Tanzania as a Country Considering Embarking on Nuclear Power Programmes

TUESDAY, 11 JUNE 2024

08:30-10:30 SESSION 6.2 ADV: IMPACTS OF ADVANCED NUCLEAR ENERGY SYSTEMS ON THE BACK END OF THE FUEL CYCLE Analysis of Impact of Advanced Reactors on the Back End Fuel Cycle

Board Room C

Chairpersons: R. McCullum, United States of America

P.-E. Dufour, France

M. Martín Ramos, EC

Paper No.	Name	Designating Member State/Organization	Title of Paper
64	C. Evans	France	Challenges and Opportunities of Advanced Nuclear Reactors for the Back End of the Fuel Cycle
94	L. McManniman	United States of America	Starting with the End in Mind: EPRI's Perspective & Involvement in the WISARD Project
95	J. Kinghorn-Mills	United Kingdom	Potential Impacts of SMR Deployment on Multinational Cooperation at the Back End of the Fuel Cycle
119	J.J. Whitlock	IAEA	Safeguards by Design: Supporting Sustainable Spent Fuel Management Strategies
93	L.E. Kissick	United Kingdom	HTGR Spent Fuel Management Strategy in the UK
123	D.T. Wojtaszek	Canada	Assessment of Performance and Spent Fuel Characteristics of a Generic 100-MWe-Class SFR-SMR
	No. 64 94 95 119 93	No.Name64C. Evans94L. McManniman95J. Kinghorn-Mills119J.J. Whitlock93L.E. Kissick	No.NameState/Organization64C. EvansFrance94L. McMannimanUnited States of America95J. Kinghorn-MillsUnited Kingdom119J.J. WhitlockIAEA93L.E. KissickUnited Kingdom

Coffee/Tea Break

Chairpersons:

SESSION 2.1 STO: STORAGE OF SNF AND VITRIFIED HLW AND 11:00-12:40 SUBSEQUENT TRANSPORTABILITY Spent Fuel Characterization

Board Room C

B.T. Kejela, Ethiopia				
Paper No.	Name	Designating Member State/Organization	Title of Paper	
76	A. Shama	Switzerland	Characterization of the Swiss SNF Radionuclide Inventory for DGR Planning	
59	S. Häkkinen	Finland	Computational Spent Fuel Characterization at VTT Finland	
127	E. Vlassopoulos	Switzerland	EURAD - Spent Fuel Characterization - Report from a Recently Finished European Project	
132	H. Akkurt	United States of America	Overview of Decay Heat Measurements at Clab Facility: Description of Decay Heat Measurements from 2003-2021 Under EPRI-SKB Collaboration	
144	S. Caruso	Switzerland	New Calorimeter Concept for the Measurement of Decay Heat from Spent Fuel Assemblies: A Gösgen NPP Project	
	Paper No. 76 59 127 132	Paper No.Name76A. Shama59S. Häkkinen127E. Vlassopoulos132H. Akkurt	Paper No.NameDesignating Member State/Organization76A. ShamaSwitzerland59S. HäkkinenFinland127E. VlassopoulosSwitzerland132H. AkkurtUnited States of America	

12:40–14:00 Lunch Break

12:50-13:50 SIDE EVENT 1

The French Fuel Cycle: An Integrated System for a Sustainable Low-**Carbon Energy**

Board Room C

Sponsored by France

TUESDAY, 11 JUNE 2024

Chairpersons: T. Boyce, United States of America

14:00–15:40 SESSION 2.3 STO: STORAGE OF SNF AND VITRIFIED HLW AND SUBSEQUENT TRANSPORTABILITY Country Overview

Board Room C

Board Room C

chanpersons.	I. BOyc	e, onneu States of	America	
	U. Zenc	ker, Germany		
Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
14:00–14:20	72	J. Palmes	Germany	Preparing for Extended Storage of SNF in Germany from the Point of View of the Licensing Authority
14:20–14:40	87	A. Shepitchak	Ukraine	Experience of Regulatory Oversight for the Construction, Commissioning and Operation of Spent Fuel Storage Facilities in Ukraine
14:40–15:00	108	M. Asamoah	Ghana	Regulatory Framework for Spent Fuel Management for Ghana's Nuclea Power Programme
15:00–15:20	65	M.Z. Bell	United States of America	YGE Challenge Winner Environmental Justice and Public Engagement in the US Consent- Based Siting Process
15:20–15:40	138	J. Václav	Slovakia	Spent Fuel Management in the Slovak Republic
15:40–16:00 P Br	oster Ses eak	sion 2.1 STO		
16:00–17:20	SESSION 4.1 REC: RECYCLING OF SPENT FUEL Near Term Opportunities			Board Room C
Chairpersons:	D. Ham	bley, United Kingdo	m	
	H. Vinc	enti, France		
Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
16:00–16:20	106	M. Nakahara	Japan	Solvent Extraction Experiments for Uranium, Plutonium, and Neptunium Co-Recovery with Dissolver Solutions Derived from Irradiated Nuclear Fuels
16:20–16:40	43	CB. Lee	Korea, Republic of	Recycling of PWR Spent Fuel in a Fast Reactor

16:20-16:40	43	CB. Lee	Korea, Republic of	Recycling of PWR Spent Fuel in a Fast Reactor
16:40–17:00	112	G. Vaast	France	MOX and UOX Fuel Recycling in Pressurized Water Reactors
17:00–17:20	7	E.D. Filimonova	Russian Federation	YGE Challenge Winner Fundamental Approaches to HTGR SNF Reprocessing Technology Development

17:20–18:40 SESSION 4.2 REC: RECYCLING OF SPENT FUEL Future Forward

Chairpersons: D. Mehta, India

E.D. Filimonova, Russian Federation

Paper **Designating Member** Time Title of Paper Name No. State/Organization 17:20-17:40 9 L.N. Podrezova **Russian Federation** Technological Approaches to Spent Accident Tolerant Nuclear Fuel Processing H. Vincenti 17:40-18:00 61 YGE Challenge Winner France Outlines for Building the Future of French Recycling Facilities 131 The ASOF Project - Advanced Separation for the Optimal Management 18:00-18:20 K. Lemmens Belgium of Spent Fuel 18:20-18:40 3 T.A. Aleksandrova **Russian Federation** Sustainable Fuel Cycle as Basis for Successful Development of Nuclear Power Programmes for Embarking Countries

TUESDAY, 11 JUNE 2024

Poster Presentations

10:30–11:00 POSTER SESSION 6 ADV: IMPACTS OF ADVANCED NUCLEAR ENERGY C04 Exhibition Area & C0454 SYSTEMS ON THE BACK END OF THE FUEL CYCLE

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper		
54	N.A. Abdelraheim	Egypt	YGE Challenge Winner		
			Review on the Impact of Advanced Fuel Technology on the Radioactive Waste Inventory		
10*	M. Tefera Kebede	Ethiopia	The Impacts of Advanced Nuclear Energy Systems on the Back End of the Fuel Cycle		
39*	V.V. Ignatev	Russian Federation	MOSART Fuel Cycle Features		
(*) e-P	(*) e-Poster presentation available on touch screens				

15:40–16:00 POSTER SESSION 2.1 STO: STORAGE OF SNF AND VITRIFIED HLW AND SUBSEQUENT TRANSPORTABILITY C04 Exhibition Area & C0454

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
2	R.F.M. AbouAlo	Egypt	Neutronic Behaviour of Light Water Reactor's Spent Fuel During Storage
125*	G. Bracke , C. Borkel, F. Sentuc, O. Bartos, F. Rowold, J. Krüger, K. Hummelsheim, M. Tzivaki, J. Nicol	Germany	Analysis of Safety Relevant Aspects Regarding Dry Interim Storage and Final Disposal of High Level Radioactive Waste: Evaluation of Hypothetical Measures and Their Implications
97	T. Sundari, M.N. Chabibi, D. Aji	Indonesia	Implementation of Waste Acceptance Criteria for the High Activity Nuclear Waste Transfer to the Interim Storage for Spent Fuel in Indonesia
86	O. Horodnicha, A. Shepitchak	Ukraine	Revision of Safety Requirements for Spent Fuel Storage Facilities of Ukraine
126	A. Detkina , D. Litskevich, B. Merk	United Kingdom	YGE Challenge Winner Advanced Burnup Credit Approach for the Storage of Boiling Water Reactor's Spent Fuel

WEDNESDAY, 12 JUNE 2024

08:30–10:30 SESSION 2.2 STO: STORAGE OF SNF AND VITRIFIED HLW AND SUBSEQUENT TRANSPORTABILITY Cladding Behaviour

Board Room C

Chairpersons: E. Vlassopoulos, Switzerland

M.Z. Bell, United States of America

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
08:30–08:50	36	R. Veazey	United Kingdom	Progression and Challenges in Technically Underpinning the United Kingdom's Strategy for the Management of Spent AGR Oxide Fuel
08:50–09:10	156	G. Cota-Sanchez	Canada	Assessment of the Effects of Long-Term Wet Storage on Canadian Spent Nuclear Fuel
09:10–09:30	17	DH. Kook	Korea, Republic of	Observation on Slow Cooling Rate Effect of Unirradiated Zircaloy-4 Hydride Reorientation Under Dry Storage Condition
09:30–09:50	57	C. Gallagher	United Kingdom	Investigating Drying and Dry Storage Options for Stainless-Steel Clad Advanced Gas Reactor Spent Fuel
09:50–10:10	90	U. Zencker	Germany	Brittle Failure Limits of Spent Fuel Claddings Subjected to Long-Term Dry Interim Storage Conditions
10:10–10:30	134	J. Faldowski	United States of America	Re-Examining Spent Fuel Cladding Integrity Limits
	Poster Ses Coffee/Tea	sion 4 REC Break		

11:00–12:40 SESSION 2.4 STO: STORAGE OF SNF AND VITRIFIED HLW AND SUBSEQUENT TRANSPORTABILITY New Design Application

Board Room C

Chairpersons: K. Shirai, Japan

A. Detkina, United Kingdom

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
11:00–11:20	6	M.E. Budu	Russian Federation	New Dual-Purpose Casks for Spent Fuel of Foreign WWER NPPs and High Level Waste from Spent Fuel Reprocessing
11:20–11:40	33	A. Šmaižys	Lithuania	Modifications of the Interim Spent Fuel Dry Storage Facility for the Storage of Fresh Fuel
11:40–12:00	109	P. Narayanan	United States of America	Performance Enhancement of the NUHOMS EOS Dry Storage System and the TN EAGLE Transportation Cask for Used Fuel Management
12:00–12:20	77	F. Lentijo	Spain	Complementary Facility for Cask Recovery at ISFSI
12:20-12:40	52	R. Marín	Spain	Spent Nuclear Fuel Management for Holtec International's SMR-300

WEDNESDAY, 12 JUNE 2024

14:00–16:00 PANEL 3 Panel on Navigating Stakeholders Engagement: Sharing Insights and Lessons Learned in Spent Fuel Management Strategy Implementation in Member States

Moderator: I. Chatzis, IAEA Time Name **Designating Member State/Organization** Title IAEA 14:00-14:05 I. Chatzis Remarks by the moderator 14:05-14:15 COVRA, Kingdom of the Netherlands To Maintain a Meaningful Conversation J. Boelen 14:15-14:25 L. Frizzell Nuclear Waste Management Organization, Canada 14:25-14:35 R. Zirovnik ANCCLI White Paper Association Nationale des Comités et Commissions Locales d'Information, France 14:35-14:45 M. Pérez Fernández ENRESA: Creating Community ENRESA, Spain 14:45-14:55 T. Vietor NAGRA, Switzerland Lessons from the White-Map Siting of the Swiss Deep **Geological Repository** 14:55-15:05 Residents' Opinions on the Options for Managing M. Kojo LUT University, Finland Nuclear Waste from SMRs: The Case of Four Largest Cities in Finland (ID#79) 15:05-16:00 Q&A and Discussion 16:00-16:30 Poster Session 2.2 STO Break

Board Room C

16:30–18:30 SESSION 5.1 DIS: DISPOSAL OF SNF, HLW AND OTHER WASTE FORMS Board Room C IN DEEP GEOLOGICAL REPOSITORIES (DGR) Disposal Strategies and Implementation

Chairpersons: Time	L. Kege	I, Slovenia				
	V. Solans, Sweden					
	Paper No.	Name	Designating Member State/Organization	Title of Paper		
16:30–16:50	120	M. Maertens	France	CIGEO, Readiness of the French DGR Project at the Construction Licence Examination Stage		
16:50–17:10	80	J.J. Dunsford	United Kingdom	Recent Progress within the United Kingdom R&D Programme for the Geological Disposal of High Heat Generating Wastes		
17:10–17:30	124	F. Johansson	Sweden	Challenges in Collecting and Preserving Sufficient Spent Nuclear Fuel Information Before the Fuel is Placed in the Final Repository		
17:30–17:50	111	D. Mignone	Switzerland	Cost Estimations for Disposal of Radioactive Waste in Switzerland: An Established Framework Takes the Next Step		
17:50–18:10	71	P. Keto	Finland	Adaptation of Current Final Disposal Strategy and Methods in Finland for Spent Fuel from SMRs		
18:10–18:30	63	L. Kniznik	Argentina	Spent Nuclear Fuel and the ConfinAR Geo Project		

Poster Presentations

10:30–11:00 POSTER SESSION 4 REC: RECYCLING OF SPENT FUEL

C04 Exhibition Area & C0454

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
104*	S.A. Darda, H.A. Gabbar	Canada	Atmospheric Pressure Plasma-Based Mass Separation for High Level Radioactive Waste Treatment
75*	A.H. Elhefnawy	Egypt	Review and Assessment of Recycling Spent Fuels in Pebble Bed High Temperature Gas Cooled Reactors
15	HS. Park, JH. Choi, KR. Lee, HY. Kang, JY. Pyo, JS. Ryu	Korea, Republic of	Development of Advanced Wasteforms for a Pyroprocessing to Recycle U/TRU in Korea
99	T.Z. Malatim , M.A. Ben Ghzail, A.S. Dakhil	Libyan Arab Jamahiriya	Simulation of AP1000 Fuel Shuffling Process Using Spent Fuel
5*	A.V. Nosov, I.V. Kuzmin, A.Yu. Leshchenko, V.P. Smirnov, R.N. Shamsutdinov, Yu.S. Mochalov, L.P. Sukhanov	Russian Federation	Development of Large-Scale Purified Inert Atmosphere Cells for Pyrochemical Treatment of Spent Nuclear Fuel
23	D. Anufriev	Russian Federation	Experience in Operation of Fuel Made from Reprocessed Materials and Outlook to the Uranium-Plutonium Fuel Use at the Russian NPPs
25*	A. Koshcheeva , A. Rodin, A. Ponizov	Russian Federation	Self-Ignition Conditions for Organic Ion Exchange Materials in the Reprocessing of Spent Nuclear Fuel
28*	A. Nikulin , E. Shiverskiy, A. Teryohin	Russian Federation	Safety Analysis of Fast Reactor's Nuclear Spent Fuel Reprocessing Facilities at Design Stage
70*	E. Petit De Mange, J. Dewitte	United States of America	The Favourable Economics for Recycling American Used Nuclear Fuel
(*) e-P	oster presentation available on tou	ch screens	

16:00–16:30 POSTER SESSION STO 2: STORAGE OF SNF AND VITRIFIED HLW AND C04 Exhibition Area & C0454 SUBSEQUENT TRANSPORTABILITY

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
8	M.K. Shaat , R.F. Mahmoud, A. Abdelhady	Egypt	Safety Considerations of the Dual Purpose Cask Containing High Burnup Fuel from an Advanced Power Reactor
12	B.T. Kejela	Ethiopia	YGE Challenge Winner
			The Challenges of Implementing Policies and Strategies for Handling Spent Fuel Management
62	T. Sundari , Nailatussaadah, A. Wahid, B. Arisanto	Indonesia	Thermal Safety Assessment of Indonesia's ISSF in Managing the Spent Fuels from GAS-MPR and the Decommissioning of the TRIGA 2000 Reactor
60	C. González Lavid, R. Plaza	Spain	Spent Fuel Acceptance System in Spain
105	C. Aguado, F. Feria , L.E. Herranz	Spain	Methodology for the Assessment of Spent Fuel in Dry Storage and Subsequent Accident Scenarios

(*) e-Poster presentation available on touch screens

THURSDAY, 13 JUNE 2024

08:30–10:30 SESSION 5.2 DIS: DISPOSAL OF SNF, HLW AND OTHER WASTE FORMS Board Room C IN DEEP GEOLOGICAL REPOSITORIES (DGR) Technical/Scientific Aspects of Disposal

Chairpersons: B. Hedberg, Sweden

D.P. Manrique Hernández, Mexico

Time	Paper No	Name	Designating Member State/Organization	Title of Paper
08:30–08:50	85	M.J. Austin	United Kingdom	An Overview of the United Kingdom Strategy for Management of Spent Nuclear Fuel, Focusing on Metallic Uranic Fuels and Challenges Presented for Geological Disposal
08:50–09:10	16	KL. Lee	Korea, Republic of	Design and Evaluation of a Korean-Style High-Efficiency Disposal System for Domestic Waste
09:10-09:30	40	K.J. Robinson	United Kingdom	Exploring Encapsulation Envelopes for Disposal of Spent Nuclear Fuel
09:30–09:50	38	V. Solans	Sweden	YGE Challenge Winner Predicting Decay Heat by Combining Fuel Parameters with Gamma and Neutron Data Using Machine Learning
09:50–10:10	78	J. Sloane	United States of America	Developing Waste Acceptance Criteria for Advanced Reactor Waste Forms in the Universal Canister System
10:10–10:30	11	B. B. Acar	Turkey	Effect of the Host Rock Thermal Properties on the Disposal Area Requirements for Spent Fuel and Vitrified High Level Waste in a Geological Repository
10:30–11:00	Poster Ses Coffee/Tea			

11:00-13:00 PANEL 4

Panel on Innovation and Integration: Approaches for Managing Spent Fuel from Advanced Reactors (e.g., SMRs, ...)

Moderator: L. McManniman, United States of America

Time	Name	Designating Member State/Organization	Title
11:00–11:05	L. McManniman	United States of America	Remarks by the moderator
11:05–11:15	C. Evans	WNA	Industry's View on Tangible Paths to Unlock the Full Potential of Nuclear Energy (ID#53)
11:15–11:25	L. Iglesias Pérez	JRC, EC	JRC-Euratom Foresight: Anticipating the Future Challenges of Spent Nuclear Fuel Management
11:25–11:35	P. Gauthé	HEXANA, France	
11:35–11:45	E. Petit de Mange	OKLO, United States of America	Deployment of a Modern Fuel Recycling Facility: The Favourable Economics for Recycling American Used Nuclear Fuel (ID#91)
11:45–11:55	B. Merk	University of Liverpool, United Kingdom	iMAGINE – A Breakthrough Nuclear Technology Operating on Spent Fuel Without Prior Reprocessing (ID#103)
11:55–12:05	A. Situm	University of Regina, Canada	The Development of Small Modular Reactor Spent Fuel and Radioactive Waste Strategies for Saskatchewan
12:05–13:00	Q&A and Discussion		
13:00–14:20 Lur	nch Break		

13:10–14:10 SIDE EVENT 2

Meeting the Moment: Paving the Way for Tomorrow's SFM Workforce

Board Room C

Board Room C

Co-organized by NEI, IYNC and IAEA-WiN

Sponsored by NEI (United States of America)

THURSDAY, 13 JUNE 2024

14:20-15:40 SESSION 7.1 INT: ACHIEVING INTEGRATED SPENT FUEL MANAGEMENT National Approaches for Integrated Spent Fuel Management Strategies

Chairpersons:	C. Evans, France L. Kniznik, Argentina				
Time	Paper No.	Name	Designating Member State/Organization	Title of Paper	
14:20–14:40	34	J. Simon	Nigeria	YGE Challenge Winner Addressing Nuclear Spent Fuel Management Challenges: A Key to Alleviating Nigerian Skepticism Towards Nuclear Power Generation	
14:40–15:00	73	F. Ledroit	France	An IRSN Augmented Expertise Tool Helping for Continuous Monitoring of the Consistency of the Fuel Cycle	
15:00–15:20	151	Y. Ishii	Japan	Updated Status of Spent Fuel Removal at Fukushima Daiichi NPP	
15:20–15:40	162	K. Sawada	Japan	Findings from the RPV and PCV Internal Investigation for Fuel Debris Retrieval at the Fukushima Daiichi NPP	
15:40–16:10 F Ві	reak	sion / IN I			
16:10–17:50	MANAG	EMENT	/ING INTEGRATED SPENT bach to Current and Future		
Chairpersons: R. Tadesse, OECD/NEA J. Simon, Nigeria					
		sse, OECD/NEA			
	J. Simo	,			
Time	J. Simo Paper No.	,	Designating Member State/Organization	Title of Paper	

Board Room C

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
16:10–16:30	45	L. Gringauz	Argentina	About Spent Nuclear Fuel in Argentina: Should We Worry?
16:30–16:50	55	L. Van den Durpel	Belgium	The Value of an Integrated View on Spent Nuclear Fuel and Radioactive Waste Management Strategies Reducing Financial Risks to Stakeholders
16:50–17:10	74	E. Vlassopoulos	Switzerland	ROWO: A Holistic Approach to the Optimization of Deep Geological Disposal of High Level Waste
17:10–17:30	113	C. Evans	France	Advances in Developing a LWR Multirecycling System
17:30–17:50	116	J.L. François	Mexico	Study of Scenarios for Spent Fuel Management in Mexico

Poster Presentations

10:30–11:00 POSTER SESSION 5 DIS: DISPOSAL OF SNF, HLW AND OTHER WASTE C04 Exhibition Area & C0454 FORMS IN DEEP GEOLOGICAL REPOSITORIES (DGR)

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper	
84	D. Hess , L. Murray, L. Salonga	Deep Geo, Inc	Application of IAEA Insights for Multinational Deep Geological Repositories: 20 Years Later	
82*	L. Vaara	Finland	Stochastic Uncertainty Propagation in Monte Carlo Depletion Calculations	
130*	D.P. Manrique Hernández , F.G. García, P.F. Nelson	Mexico	YGE Challenge Winner Towards a Sustainable Future: "Deep Geological Repository for Nuclear Waste Disposal in Mexico"	
22	B.P. Zlobenko, Yu.L. Zabulonov	Ukraine	Activities in Ukraine Towards Geological Disposal of Spent Fuels and High Level Waste	
(*) e-P	*) e-Poster presentation available on touch screens			

15:40–16:10 POSTER SESSION 7 INT: ACHIEVING INTEGRATED SPENT FUEL MANAGEMENT

C04 Exhibition Area & C0454

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
49	L. Van den Durpel, A. van Heek	Belgium	NESSAT Toolbox Version 6: Comprehensive Nuclear Energy System Modelling and Strategic Decision-Making Support
129	A. Mahamadou Saley , H. Fenwick, G. Indauliya, L. Noudem	WiN YG	A Comparative Study of Spent Fuel Strategies in France and the UK
18	M. Baryshnikov, E. Zhurbenko	Russian Federation	Sustainable Nuclear Fuel Cycle as the Most Efficient and Responsible Way to Manage Spent Nuclear Fuel
44	T. Bogdanova	Russian Federation	Russian Nuclear Regulatory Authority's Involvement in the National Spent Nuclear Fuel Importation Strategy
89	A.V. Gurin , D.A. Volodin, E.V. Pidoprigora, E.A. Bobrov, P.A. Fomichenko, Y.A. Kotov, N.A. Kovalenko, P.S. Teplov	Russian Federation	Strategic Aspects of Regenerated Uranium and Plutonium Recycling in LWRs within the Concept of "Sustainable Nuclear Fuel Cycle" Proposal
135*	K.N. Borozdin , J. Kefalos, R. Penny, J.M. Durham, C.L. Morris, D. Poulson	United States of America	Monitoring Spent Nuclear Fuel Integrity with Muon Imaging
(*) e-P	oster presentation available on touch	n screens	

FRIDAY, 14 JUNE 2024

08:30–10:10 SESSION 3.1 TRA: TRANSPORTATION IN THE BACK END OF THE FUEL Board Room C CYCLE National Experiences

Chairpersons: S.J. Maheras, United States of America

C. Alistan, France

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
08:30–08:50	114	Y. Solignac	France	Preparing Safe and Efficient Loading and Transport Operations of Spen Nuclear Fuel
08:50–09:10	20	V.N. Ershov	Russian Federation	Experience and Perspectives of SNF Transportation in Russia: Organization of Shipments, Safety Requirements and Justification, Emergency Response, New Tasks
09:10–09:30	110	F. Holzgrewe	Switzerland	Spent Nuclear Fuel Management at KKM Nuclear Power Plant: Spent Nuclear Fuel Storage Away from the Plant
09:30–09:50	32	L. Bak	Poland	YGE Challenge Winner Transportation of Spent Nuclear Fuel Conducted in Poland - Lessons Learned

09:50–10:15 Coffee/Tea Break

10:15-11:55 SESSION 3.2 TRA: TRANSPORTATION IN THE BACK END OF THE FUEL **Board Room C** CYCLE **Current and Future Challenges** Chairpersons: Y. Solignac, France L. Bak, Poland Paper **Designating Member** Title of Paper Time Name State/Organization No. 10:15-10:35 Demonstration of a Risk-Informed Approach for Regulatory Approval for 42 H.E. Adkins United States of America Shipping a Microreactor Transportation Package Microreactor Transportation Emergency Planning Challenges 10:35-10:55 41 S.J. Maheras United States of America 10:55-11:15 148 C. Alistan France Transportation and/or Interim Storage of SMR/AMR Spent Fuel: Solutions and Challenges United States of 11:15-11:35 67 L. Hay Development of a Functions and Requirements Document for a SNF America Transportation Package Performance Demonstration Y. Liu 11:35-11:55 141 United States of Packaging Safety, Security, and Safeguards (3S) for Nuclear Fuel Cycle America Materials in Storage, Transportation, and Disposal

FRIDAY, 14 JUNE 2024

12:00-13:00 CLOSING SESSION

Board Room C

Name	Designating Member State/Organization	Title
J.A. Gago	Conference Chairman, Spain	Closing Remarks
L. Evrard	Deputy Director General and Head of the Department of Nuclear Safety and Security, IAEA	Closing Remarks
M. Chudakov	Deputy Director General and Head of the Department of Nuclear Energy, IAEA	Closing Remarks

IAEA PUBLICATIONS RELATED TO THE SUBJECT OF THE EVENT

IAEA PUBLICATIONS RELATED TO THE SUBJEC	
Technical Report Series No. 240	Guidebook on Spent Fuel Storage Options and Systems IAEA
IAEA -TECDOC 2040	Considerations for the Back End of the Fuel Cycle of Small Modular Reactors (2023)
Nuclear Energy Series No. NF-T-4.11	Technical Approaches for the Management of Separated Civilian Plutonium (2023)
IAEA Safety Standards Series No. SSG-7 (Rev. 1)	Safety of Uranium and Plutonium Mixed Oxide Fuel Fabrication Facilities (2023)
IAEA -TECDOC 1975	Spent Fuel Performance Assessment and Research (2021)
IAEA Proceedings Series STI/PUB/1905	Management of Spent Fuel from Nuclear Power Reactors: Learning from the Past Enabling the Future, Proceedings of an International Conference Held in Vienna, Austria, 24-28 June 2019 (2020)
IAEA Safety Standards Series No. SSG-15 (Rev.1)	Storage of Spent Nuclear Fuel (2020)
Nuclear Energy Series No. NF-T-3.3	Storing Spent Fuel until Transport to Reprocessing or Disposal (2019)
IAEA -TECDOC 1667	Status and Trends in Pyroprocessing of Spent Nuclear Fuels (2019)
IAEA-TECDOC-1862	Behaviour of Spent Power Reactor Fuel during Storage (2019)
IAEA Safety Standards Series No. SSR-6 (Rev.1)	Regulations for the Safe Transport of Radioactive Material (2018)
IAEA Safety Standards Series No. SSR-4	Safety of Nuclear Fuel Cycle Facilities (2017)
IAEA Safety Standards Series No. SSG-42	Safety of Nuclear Fuel Reprocessing Facilities (2017)
IAEA-TECDOC-1774	Potential Interface Issues in Spent Fuel Management (2015)
IAEA, Nuclear Security Series No. 14	Nuclear Security Recommendations on Radioactive Material and Associated Facilities (2011)
IAEA Nuclear Security Series No. 13	Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities (INFCIRC/225/Revision 5) (2011)
IAEA Nuclear Security Series No.15	Nuclear Security Recommendations on Nuclear and Other Radioactive Material out of Regulatory Control (2011)
IAEA Safety Standards Series No. GSR Part 5	Predisposal Management of Radioactive Waste (2009)

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International Conference on Small Modular Reactors and their Applications (CN-327) 21 – 25 October 2024, Vienna, Austria

International Conference on Research Reactors: Achievements, Experience and the Way to a Sustainable Future (CN-319) **11 – 15 November 2024, Vienna, Austria**

Ministerial Conference on Nuclear Science and Technology for Development (CN-328) 26 – 28 November 2024, Vienna, Austria

International Conference on Challenges Faced by Technical and Scientific Support Organizations (TSO) in Enhancing Nuclear Safety and Security: Enhancing science and adaptability in a changing world and creating perspective for a young generation (CN-329) **2 – 6 December 2024, Vienna, Austria**

2025

Third International Conference on Applications of Radiation Science and Technology (ICARST-2025) (CN-332) 7 – 11 April 2025, Vienna, Austria

IAEA International Conference on Advances in Stakeholder Engagement for Nuclear Power Programmes (CN-333) 26 – 30 May 2025, Vienna, Austria

International Conference on Advances in Radiation Oncology (ICARO 4) (CN-331) 2 – 5 June 2025, Vienna, Austria

30th IAEA Fusion Energy Conference (CN-336) 13 – 18 October 2025, Xi'an, China

International Conference on Resilience of Nuclear Installations against External Events from Safety Perspective (CN-337) 20 – 24 October 2025, Vienna, Austria

International Conference on National, Regional and International Nuclear and Radiological Emergency Preparedness and Response: Facing New and Complex Challenges (CN-338) **10 – 14 November 2025, Vienna, Austria**

International Conference on Radiation Protection in Medicine: X Ray Vision (CN-339)

8 – 12 December 2025, Vienna Austria

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