

# **International Conference on Small Modular Reactors and their Applications**

21–25 October 2024

## **PROGRAMME**

Organized by the  
International Atomic Energy Agency (IAEA)

IAEA Headquarters Vienna, Austria

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**Conference Presidency:**

Conference President: M. Korsnick, Nuclear Energy Institute  
Conference Chair: M. Ricotti, Politecnico di Milano

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**Programme Committee:**

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D. Hahn, IAEA  
J. Herbach, IAEA  
B. Rini, IAEA  
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**IAEA Secretariat:**

Scientific Secretaries: A. Bradford, NSNI  
A. des Cloizeaux, NENP  
Event Organizer: N. Herter, MTCD  
Administrative Support: A. Patil, NSNI

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**Location of the Event:**

International Atomic Energy Agency  
Vienna International Centre (VIC)  
Building M, BR-B/M1

Wagramer Strasse 5  
A-1400 Vienna, Austria

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**Working Language:** English

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

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Read abstracts and full-papers of speakers



Participate in voting during sessions



Raise questions to speakers during session



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## TIMETABLE

### SUNDAY, 20 OCTOBER 2024

15:00-18:00 Registration

IAEA Headquarters, Gate 1

### MONDAY, 21 OCTOBER 2024

08:00-14:00 Registration

IAEA Headquarters, Gate 1

### MONDAY, 21 OCTOBER 2024

14:00–14:45 CONFERENCE OPENING SESSION Room: BR-B/M1

Opening: **Rafael Mariano Grossi**  
Director General, IAEA

Keynotes: **Hon. Collins Adomako-Mensah, Ghana**  
Deputy Minister of Energy

**Maria Korsnick, United States of America**  
President and Chief Executive Officer, Nuclear Energy Institute

## MONDAY, 21 OCTOBER 2024

**14:45-16:00**    **OPENING PANEL DISCUSSION**    **Room: BR-B/M1**

The opening panel of the conference brings together key players from across the SMR ecosystem to explore opportunities and challenges in deploying these emerging nuclear technologies. A diverse group of stakeholders will provide their perspectives on the future of SMRs. Discussions will focus on a range of topics, including technological readiness, regulatory frameworks, market potential, supply chains, international cooperation and how SMRs can play a key role in energy transitions, whether in developing countries or in hard-to-abate industries. The panel aims to foster dialogue across the entire ecosystem, identifying strategies to accelerate the development and deployment of SMRs to address global energy challenges while ensuring high levels of safety and security.

**Moderator:**    **Kirsty Gogan, United Kingdom**  
Chief Executive Officer, Terraprxis

**Panelists:**    **Rafael Mariano Grossi**  
Director General, IAEA

**Zhengyu Zou, China**  
President, CNNP

**Xavier Ursat, France**  
EVP, Strategy, Technologies, Innovation and Development, EDF

**John Hopkins, United States of America**  
President and CEO, NuScale Power

**Ramzi Jammal, Canada,**  
EVP and Chief Regulatory Operations Officer, CSNC

**Alexey Likhachev, Russian Federation (video recording)**  
Director General, Rosatom

**16:00-16:15**    **ADMINISTRATIVE REMARKS / LOGISTICS**

**Presenter:**    **A. des Cloizeaux (IAEA)**

**16:15–16:45**    **Coffee Break**

## **MONDAY, 21 OCTOBER 2024**

**16:45–18:00 PLENARY: END USERS**

**Room: BR-B/M1**

This panel will focus on how energy-intensive sectors—such as steelmakers, chemical producers, and the transport industry—are exploring the option of using SMRs to achieve their decarbonization objectives. It will explore how the use of SMRs is being considered to provide low-carbon district heating for urban areas and generate hydrogen for synthetic fuels. Additionally, the potential of SMRs for nuclear marine propulsion, offering a sustainable alternative for global shipping, will be discussed.

**Chair: K. Lee (WNA)**

**Moderator: J. Donovan (IAEA)**

**Panelists:**

- R. Janjua (World Steel Association)**
- S. Wilkin (United Kingdom, Fly Green Alliance)**
- R. Kasprow (Poland, OSGE)**
- J. Liuko (Finland, HELEN)**
- S. Edwards (United States of America, Core Power)**

**18:00–20:00 IAEA Welcome Reception**

## TUESDAY, 22 OCTOBER 2024

**09:00–10:15**    **PLENARY: REGULATORY PREPAREDNESS, INNOVATION AND COLLABORATION FOR THE SAFE AND SECURE DEPLOYMENT OF SMRS**    **Room: BR-B/M1**

This panel highlights efforts made by regulatory bodies to prepare for the deployment of innovative reactor technologies and discusses the challenges facing SMR newcomer countries as they adapt and enhance their regulatory capabilities and the ways in which more experienced regulatory bodies can and do contribute to regulatory capacity-building.

**Moderator:**    **A. Hajduk Bradford (IAEA)**

**Panelists:**    **P. Tiippana (Finland, STUK)**  
**P. Abrefah (Ghana, NRA)**  
**C. Kim (Republic of Korea, NSSC)**  
**M. Brugmans (Kingdom of the Netherlands, ANVS)**  
**C. Arcilla (Philippines, PNRI)**  
**M. Gavrilas (United States of America, NRC)**

**10:15–10:45**    **Poster Session & Coffee break**

## TUESDAY, 22 OCTOBER 2024

**10:45–12:15**    **TRACK A.1 – SESSION 1.1:**    **Room: BR-B/M1**  
**Design and Technology Development of SMRs**

**Chairpersons:**    **A. Hahn (United States of America, DOE)**  
**F. Reitsma (IAEA)**

**Rapporteur:**    **Haseeb ur Rehman (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
10:45–10:57	370	<b>J. Gorgemans</b>	United States of America / Westinghouse Electric	Delivering on the Promise of Small Modular Reactors
10:57–11:09	22	<b>Y. Zhu</b>	China / Nuclear Institute of China	Dynamic analysis of steam dump system of SMR
11:09–11:21	27	<b>H.G. Kim</b>	Republic of Korea / Innovative SMR Development Agency	The Development status of Innovative SMR and Future Plan
11:21–11:33	88	<b>F. Morin</b>	France / CEA	The ARCHEOS heat unit to decarbonize the heat market with proven technologies
11:33–11:45	123	<b>G. Guido-Lavalle</b>	Argentina / CNEA	CAREM – The Argentinian SMR



11:45–11:57	237	<b>S. de Groot</b>	Netherlands / Thorizon	Thorizon's cartridge core molten salt reactor
11:57–12:15	<b>Discussion</b>			
12:15–14:00	<b>Lunch Break &amp; Side Event</b>			

## TUESDAY, 22 OCTOBER 2024

**10:45–12:15 TRACK A.4 – SESSION 4.1: Transportable SMRs Room: M7**

**Chairpersons:** **M. Dowling (United States of America, ABS Technology Americas)**  
**H. Khartabil (IAEA)**

**Rapporteurs:** **U. Ejaz (IAEA), P. Wang (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
10:45–11:00	107	<b>J. Esteve Otegui</b>	France / Bureau Veritas	Risk-based Technology Qualification to address the marinization of SMRs
11:00–11:15	233	<b>I. Kourasis</b>	United Kingdom / Core Power	Evaluation of the Molten Salt Reactor technology for the application of Floating Nuclear Power Plants
11:15–11:30	361	<b>H. Raza</b>	Pakistan / PNRA	Floating Nuclear Power Plants: Legal and Regulatory Gap Analysis
11:30–11:45	118	<b>V. Malev</b>	Russian Federation / Afrikantov OKBM	Implementation of projects of nuclear floating power units within the framework of maritime and nuclear law and approaches to regulation
11:45–12:00	<b>Discussion</b>			
12:15–14:00	<b>Lunch Break &amp; Side Event</b>			

## TUESDAY, 22 OCTOBER 2024

**10:45–12:15 TRACK B.7 – SESSION 7.1: Regulatory Body Preparation for Licensing New Technologies Room: M2**

**Chairpersons:** **G. Bowman (United States of America, NRC)**  
**P. Calle-Vives (IAEA)**

**Rapporteur:** **M. Salmon (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
10:45–11:00	50	<b>Y. Suh</b>	Republic of Korea / KINS	Regulatory considerations for SMR application: The case of South Korea

11:00–11:15	139	<b>E. Ahonen</b>	Finland / STUK	Developing regulatory framework for SMRs
11:15–11:30	144	<b>O. Dybach</b>	Ukraine / SSTC NRS	Preparation of Regulatory Framework for SMR Deployment in Ukraine
11:30–11:45	417	<b>R. Iyengar</b>	United States of America / NRC	Regulatory Implications of Advanced Technologies for Advanced Reactors
11:45–12:00	183	<b>K. Ur Rahman</b>	Pakistan / PNRA	Small Modular Reactors – A Regulatory Perspective in Pakistan
12:00–12:15	<b>Discussion</b>			
12:15–14:00	<b>Lunch Break &amp; Side Event</b>			

## TUESDAY, 22 OCTOBER 2024

**10:45–12:15**      **TRACK C.10 – SESSION 10.1:**      **ROOM: M3**  
**Safety, Security and Safeguards Interfaces**  
**in SMR designs: Setting up the Scene**

**Chairpersons:**    **I. Sanda (Belgium, SCK CEN)**  
**S. Poghosyan (IAEA)**

**Rapporteur:**     **Z. Stone (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
10:45–11:00	-	<b>S. Poghosyan</b>	IAEA	Interfaces between safety, security and safeguards: focus on SMR designs
11:00–11:15	386	<b>C. Scherer</b>	IAEA	Implementation of 3S by INPRO
11:15–11:30	248	<b>D. Kovacic</b>	United States of America / ORNL	The Meaning of Risk for Safety, Security, and Safeguards in the Design of Advanced Nuclear Reactors
11:30–11:45NI	412	<b>J.M. Levy</b>	United States of America / Westinghouse	Reactor Designer Lessons Learned on the Approach to Safeguards by Design for Small Modular Reactors; Opportunities and Challenges
11:45–12:00	288	<b>L. Ammirabile</b>	Generation IV International Forum	Safety, Security, and Safeguards (3S) Interface Identification and Characterisation in Generation IV Advanced Modular Reactors: A Generation IV International Forum Case Study
12:00–12:15	<b>Discussion</b>			
12:15–14:00	<b>Lunch Break &amp; Side Event</b>			

## TUESDAY, 22 OCTOBER 2024

**12:30–13:45**      **SIDE EVENT: WOMEN IN NUCLEAR – WOMEN AS GAME CHANGERS**      **Room: BR-B/M1**

This side event underscores the significant social and health benefits that women can experience through improved access to stable and clean electricity, replacing coal or diesel plants. It also highlights the diverse career opportunities available to women in the field of nuclear innovation, including roles in start-ups and new projects. Additionally, the event explores how Small Modular Reactors (SMRs) can transform women’s perceptions of nuclear energy.

**Moderator:**      **A. des Cloizeaux (IAEA)**

**Panelists:**      **A. Duncan (United States of America, DOE)**  
                          **R. Runnel (Estonia, Ministry of Climate)**  
                          **D. Musyoka (Kenya, NuPEA)**  
                          **L. Claquin, (France, Thorizon)**  
                          **R. Ollington (United Kingdom, Radiant Energy Group)**  
                          **N. Kiviluoma (Finland, LUT University)**

## TUESDAY, 22 OCTOBER 2024

**14:00–15:30**      **TRACK A.1 – SESSION 1.2:**      **Room: BR-B/M1**  
                          **Design and Technology Development**  
                          **of SMRs**

**Chairpersons:**      **N. Trianti (Indonesia, BRIN)**  
                          **M. Ricotti (Italy, Politecnico di Milano)**

**Rapporteur:**      **H. ur Rehman (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
14:00–14:15	274	<b>V. Tulkki</b>	Finland / VTT Technical Research Centre	Using open SMR datasets E-SMR and LDR lite for research and training purposes
14:15–14:30	147	<b>A. Crabb</b>	United Kingdom / AtkinsRéalis	Parametric Design: Making the complex simple.
14:30–14:45	315	<b>I. Ali</b>	United States of America / ARC Clean Technology	SMR Deployment: FOAK (First-of-a-Kind) Risks & Risk Mitigation Strategies
14:45–15:00	317	<b>M. Caramello</b>	Italy / Ansaldo Nucleare	Italy’s Journey into Small Modular Reactors: Research, Safety Assessment, Testing, and Future Prospects
15:00–15:15	403	<b>R. Faibish</b>	United States of America / General Atomics	Advanced Design Features of the Fast Modular Reactor
15:15–15:30	<b>Discussion</b>			

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
15:30–16:00	<b>Poster Session &amp; Coffee break</b>			

## TUESDAY, 22 OCTOBER 2024

**14:00–15:30**      **TRACK A.4 – SESSION 4.2:**      **Room: M7**  
Transportable SMRs

**Chairpersons:**    **A. Bychkov**  
**S. Poghosyan (IAEA)**

**Rapporteurs:**    **U. Ejaz (IAEA), P. Wang (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
14:00–14:15	185	<b>M. Dowling</b>	United States of America / American Bureau of Shipping	Classification Requirements for Floating Nuclear Power Plants (FNPPs)
14:15–14:30	235	<b>W.S. Edwards</b>	United Kingdom / Core Power	Deployment and uses of Floating Nuclear Power Plants powered by Small Modular Reactors
14:30–14:45	195	<b>F. Puente-Espel</b>	Canada / Prodigy Clean Energy	3S Approach to bring nuclear energy to where it's needed
14:45–15:00	103	<b>J.S. Choi</b>	United States of America / LLNL	Challenges in the harmonisation of legal instruments on 3s (safety, security, safeguards) and civil liability for marine- nuclear systems between the International Atomic Energy Agency and the International Maritime Organisation
15:00–15:30	<b>Discussion</b>			
15:30–16:00	<b>Poster session &amp; Coffee break</b>			

## TUESDAY, 22 OCTOBER 2024

**14:00–15:30**      **TRACK B.6 – Session 6.1:**      **Room: M2**  
International Legal Instruments and SMRs

**Chairpersons:**    **R. Gaucher (France, Ministry of Ecological Transition)**  
**J. Herbach (IAEA)**

**Rapporteur:**      **E. Ali (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
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14:00–14:15	24	<b>Z.M. Savas</b>	Türkiye / NDK	Nuclear Liability for Small Modular Reactors
14:15–14:30	58	<b>P. Nowakowska</b>	Poland / Kubas, Kos, Gałkowski–Adwokaci	The Channeling of Liability and Small Modular Reactors: is it at all adequate?
14:30–14:45	160	<b>X. Vásquez-Maignan</b>	France / White & Case	Small Modular Reactors to Decarbonize the Industry: the Impact of Nuclear Liability
14:45–15:00	262	<b>M. Man</b>	United States of America / PNNL	Novel Organizational Models for Advanced Reactors' Operations: the Implementation of A/CPPNM Obligations in the Context of Multiple Jurisdictions
15:00–15:15	213	<b>H.N. Naimbale</b>	Namibia / NRPA	Readiness of Instrumental Legal Instruments to Regulate SMRs
15:15–15:30	<b>Discussion</b>			
15:30–16:00	<b>Poster Session &amp; Coffee break</b>			

## TUESDAY, 22 OCTOBER 2024

**14:00–15:30 TRACK D.17 – SESSION 17: Cooperation for Harmonization and Standardization Room: M3**

**Chairpersons:** E. Vieilletoile (France, EDF)  
B. Lepouze (IAEA)

**Rapporteur** K. Pavlova (IAEA)

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
14:00–14:12	289	<b>K. Deknopper</b>	France / NUWARD	NUWARD Joint Early Review: a pragmatic approach to development of an internationally licensable standardized SMR design
14:12–14:24	303	<b>S. Eaton; G. Bowman</b>	Canada / CNSC; United States of America / NRC	United States and Canada Cooperation on SMR Design Reviews - Successes in Collaboration
14:24–14:36	326	<b>R. Tanguy</b>	WNA	Collaboration – the key to standardized SMR deployment
14:36–14:48	366	<b>T. Buckenmeyer</b>	France / ASN	Redefining international dialog: Invent innovative frameworks for licensing Small Modular Reactors

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
14:48–15:00		<b>R. El Ghalbzouri</b>	OECD NEA	NEA activities to support SMR Safety assessment
15:00–15:12	-	<b>P. Calle-Vives</b>	IAEA	Nuclear Harmonization & Standardization Initiative
15:12–15:30		<b>Discussion</b>		
15:30–16:00		<b>Poster Session &amp; Coffee break</b>		

## TUESDAY, 22 OCTOBER 2024

**16:00–17:30**      **TRACK A.1 – SESSION 1.3:**      **Room: BR-B/M1**  
**Design and Technology Development of SMRs**

**Chairpersons:**    **A. Iyengar (United States of America, DOE/NNSA)**  
**C. Batra (92 Venture)**

**Rapporteur:**     **H. Rehman (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
16:00–16:12	318	<b>P. Sabharwall</b>	United States of America / INL	Experiment and Modeling Efforts to Support Development and Deployment of Advanced Energy Systems
16:12–16:24	325	<b>P. Gauthé</b>	France / HEXANA	HEXANA: a sodium advanced modular reactor for sustainable industrial decarbonization
16:24–16:36	346	<b>G. Masotti</b>	Italy / Politecnico di Milano	Experimental Investigation and Modeling of Passive DHRS with Plate-Type Compact Steam Generator
16:36–16:48	350	<b>I. Pioro</b>	Canada / Ontario Tech University	Current status of SMRs development
16:48–17:00	351	<b>N. Trianti</b>	Indonesia / BRIN	Performance Optimization Analysis of PeLUit-40 using HTGR Code Package (HCP)
17:00–17:12	328	<b>P. Bhowmik</b>	United States of America / INL	SMR Current Status: Development Needs and Global Perspectives
17:12–17:30		<b>Discussion</b>		

## TUESDAY, 22 OCTOBER 2024

**16:00–17:30**      **TRACK A.4 – SESSION 4.3:**      **Room: M0E100**  
**Transportable SMRs**

**Chairpersons:**    **S. Fayyaz (IAEA)**

H. Khartabil (IAEA)

Rapporteurs: U. Ejaz (IAEA), P. Wang (IAEA)

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
16:00–16:12	333	<b>A. Spalding</b>	United States of America / Westinghouse	Enabling versatile nuclear deployments of the eVinci microreactor
16:12–16:24	368	<b>A. Bychkov, G. Sayin</b>	IAEA	The Activities of INPRO in Transportable Nuclear Power Plants
16:24–16:36	156	<b>J. Kim</b>	Republic of Korea / HD Korea Shipbuilding & Offshore Engineering Co., Ltd.	Shielding Systems for Nuclear System of Maritime SMR
16:36–16:48	384	<b>R. Peel</b>	United Kingdom / King's College London	Security Considerations for Floating Nuclear Power Plants when Stationary
16:48–17:00	244	<b>K.B. Veshnyakov</b>	Russian Federation / Afrikantov OKBM, JSC	Reactor Plants for Nuclear Ships and Floating Nuclear Power Plants. Development Experience and Improvement Prospects
17:00–17:12	119	<b>T. Tagirova</b>	Russian Federation / Afrikantov OKBM, JSC	Features of application of IAEA safeguards during refueling of spent fuel on floating power unit for foreign markets with a reactor unit of the RITM type
17:12–17:30	<b>Discussion</b>			

## TUESDAY, 22 OCTOBER 2024

16:00–17:30 TRACK C.8 – SESSION 8.1:  
SMRs Design Safety Approaches

Room: M3

Chairpersons: I. Sanda (SCK CEN, Belgium)  
V. Tiberi (IAEA)

Rapporteur: Z. Stone (IAEA)

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
16:00-16:12	-	<b>V. Tiberi</b>	IAEA	IAEA activities on design safety and safety assessment of SMRs

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
16:12–16:24	120	<b>M.O. Giménez</b>	Argentina / CNEA	Nuclear safety and defence in depth in CAREM25
16:24–16:36	193	<b>T. Kooyman</b>	France / NAAREA	NAAREA'S XAMR® safety approach
16:36–16:48	283	<b>F. Ameyaw</b>	Ghana / Nuclear Power Institute	Challenges and opportunities in developing a safety case for small modular reactors: The Ghanaian perspective
16:48–17:00	337	<b>U.A. Bautista</b>	Philippines / PNRI	Assessment of the safety design features of small modular reactors with existing demonstration plants using Reactor Technology Assessment (RTA)
17:00–17:12	-	<b>M. Mahmood</b>	IAEA	Application of IAEA Safety Standards to External Hazards Assessment for Advanced NPPs, Including SMRs
17:12–17:30	<b>Discussion</b>			

## TUESDAY, 22 OCTOBER 2024

**16:00–17:30 TRACK C.11 – SESSION 11.1: Navigating the Regulatory Landscape: Strategic Approaches to SMRs Security** **Room: M2**

**Chairpersons:** **S. Shrum (United States of America, DOE/NNSA)**  
**N. Gerceker (IAEA)**

**Rapporteur:** **A. Acevedo (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
16:00–16:15	239	<b>S. Lee</b>	Republic of Korea / KINAC	Research on Gaps in Domestic Regulatory Documentation Based on Security Regulatory Cases of SMRs in Other Countries
16:15–16:30	294	<b>R. Iyengar</b>	United States of America / NRC	Physical Protection Modeling and Simulation Tools to Optimize Security for New Reactors
16:30–16:45	203	<b>R. Gaucher</b>	France / Ministry of Ecological Transition	French SMRs: Lessons Learned from Two Years of Regulatory Support for SMR Projects
16:45–17:00	176	<b>K. Ghoshal</b>	India / DAE	Transitioning Regulatory Oversight: Moving from Prescriptive to Performance-Based Approach for Addressing



17:00–17:30 **Discussion**

**TUESDAY, 22 OCTOBER 2024**

**16:00–17:30 TRACK D.15 – SESSION 15.1: Economic and Macroeconomic Analysis and Impact of Technology Development on the Cost of SMRs** **Room: M7**

**Chairpersons:** **F. Brew Quansah (GAEC)**  
**M. Cometto (IAEA)**

**Rapporteur** **N. Trombetta (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
16:00–16:15	57	<b>J.K. Nøland</b>	Norway / Norwegian University of Science and Technology	Future Cost Projections of Small Modular Reactors: A Model-Based Analysis
16:15–16:30	93	<b>S. Suparman</b>	Indonesia / BRIN	Cost- Analysis of Small Modular Reactor Deployment for Electricity Generation in West Kalimantan
16:30–16:45	207	<b>B. Taruffelli</b>	United States of America / PNNL	EverGREEN 2045: An Energy Mix to Decarbonize Washington State
16:45–17:00	286	<b>P.M. Alliard</b>	France / NUWARD	Steel Concrete modular construction. Economic impact on the levelized cost of electricity in large reactors or SMRs
17:00–17:15	407	<b>L. Voss</b>	United States of America / NRIC	National Reactor Innovation Center Advanced Construction Technology Program
17:15–17:30	<b>Discussion</b>			

## TUESDAY, 22 OCTOBER 2024

<b>17:45–20:10</b>	<b>INDUSTRY NIGHT</b>	<b>Room: Ground floor; M2 and M3</b>
<p>The Industry Night aims to highlight the latest developments from SMR vendors and showcase various reactor technologies and their potential applications from around the world. During this event SMR Developers will present projects at different development stages – from conceptual designs up to construction and operational phases – in an interactive format, allowing the audience to actively participate in discussions on various topics related to each design.</p>		
<b>17:45-18:00</b>	<b>Opening: IAEA, WNA</b>	<b>M Ground Floor</b>
<b>Panels:</b>		
<b>18:05-18:50</b>	Panel 1: LWR SMR	<b>M2</b>
<b>18:05-18:50</b>	Panel 2: Non-Water Cooled Reactors	<b>M3</b>
<b>19:10-20:00</b>	Panel 3: LWR SMR	<b>M2</b>
<b>19:10-20:00</b>	Panel 4: Advanced Reactors and Applications	<b>M3</b>
<b>20:00-20:10</b>	<b>Closing: WNA</b>	<b>M ground floor</b>

## WEDNESDAY, 23 OCTOBER 2024

<b>09:00–10:15</b>	<b>PLENARY: INNOVATIVE SMRS (Non-water cooled and Gen IV)</b>	<b>Room: BR-B/M1</b>
	This panel showcases the breadth and diversity of innovative Gen-IV SMR concepts under development globally and discusses the key technical and non-technical challenges and opportunities for innovative SMR deployment. It also highlights the efforts made by regulatory bodies to enable deployment of innovative reactor technologies.	
<b>Moderators:</b>	<b>A. Gomez-Cobo (IAEA)</b> <b>V. Kriventsev (IAEA)</b>	
<b>Panelists:</b>	<b>S. Sarrade (France, CEA)</b> <b>S. Perez Martin (Germany, KIT)</b> <b>M. Tarantino (Italy, ENEA)</b> <b>J.L. Kloosterman (Kingdom of the Netherlands, Delft University of Technology)</b> <b>F. Reitsma (IAEA)</b> <b>S. Eaton (Canada, CNSC)</b>	
<b>10:15–10:45</b>	<b>Poster Session &amp; Coffee break</b>	

## WEDNESDAY, 23 OCTOBER 2024

<b>10:45–12:15</b>	<b>TRACK A.1 – SESSION 1.4:</b> Design and Technology Development of SMRs	<b>Room: BR-B/M1</b>
<b>Chairpersons:</b>	<b>P. Sabharwall (United States of America, INL)</b> <b>V. Kriventsev (IAEA)</b>	
<b>Rapporteur</b>	<b>H. ur Rehman (IAEA)</b>	

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
10:45–10:57	352	<b>M. Young Park</b>	Republic of Korea / KAERI	Overview of Modified Design Features of SMART-C
10:57–11:09	380	<b>P. Diaz Gomez Maqueo</b>	Canada / CNL	Heat Distribution Results from Experiments Using Array of 5 Sodium Heat Pipes
11:09–11:21	390	<b>L. Cinotti</b>	Italy / newcleo	newcleo's R&D Programme in support of SMR-LFR Development and Deployment
11:21–11:33	13	<b>D. Serbanescu</b>	Romania / Romanian Academy	On some safety and technology perspectives for the new nuclear reactor types

11:33–11:45	402	<b>J. Jackson</b>	United States of America / INL	Microreactor Applications, Research, Validation, and Evaluation (MARVEL) Reactor – Status, Construction, and Testing
11:45–11:57	406	<b>T. Burnett</b>	United States of America / INL	Accelerating Microreactor Development and Deployment Through Joint Public Testbeds and Private Advanced Reactor Development
11:57–12:15	<b>Discussion</b>			
12:15–14:00	<b>Lunch Break &amp; Side Event</b>			

## WEDNESDAY, 23 OCTOBER 2024

**10:45–12:15**      **TRACK C.8 – SESSION 8.2:**      **Room: M2**  
**Assessment and Experimental Testing of**  
**Passive Safety Systems in SMRs**

**Chairpersons:**    **N. Joergensen (Denmark, Seaborg)**  
**M. Lankin (IAEA)**

**Rapporteur:**     **W. Bukhari (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
10:45–11:00	32	<b>J.Y. Park</b>	Republic of Korea / KINS	Regulatory research activity on safety analysis methodology for passive safety systems in Korea
11:00–11:15	94	<b>D. Lisowski</b>	United States of America / ANL	Experimental testing of a large scale water-cooled RCCS: Observations and considerations for passive decay heat removal
11:15–11:30	113	<b>D.H. Sukarno</b>	Indonesia / BAPETEN	The qualitative reliability study of the TMSR500 passive cooling design and design requirements applicability
11:30–11:45	273	<b>S. Lim</b>	Republic of Korea / i-SMR Development Agency	Passive safety system and safety demonstration of innovative small modular reactor
11:45–12:15	<b>Discussion</b>			
12:15–14:00	<b>Lunch Break &amp; Side Event</b>			

## WEDNESDAY, 23 OCTOBER 2024

**10:45–12:15**      **TRACK C.10 – SESSION 10.2:**      **Room: M3**  
**Safety, Security and Safeguards Interfaces**  
**in SMR Designs: Experiences and**  
**Practices**

**Chairpersons:**    **D. Kovacic (United States of America, ORNL)**

**J. Whitlock (IAEA)**

**Rapporteur: Z. Stone (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
10:45–11:00	143	<b>I. Sanda</b>	Belgium / SCK CEN	3Ss Approach for advanced SMRs designs in Belgium
11:00–11:15	431	<b>M. Koppe</b>	France / Ministry of Ecological Transition	French lessons learnt regarding interfaces between security and safety and safeguards, for SMRs
11:15–11:30	215	<b>A. Williams</b>	United States of America / SNL	A Path Toward Leveraging the Benefits of Safety, Security, and (International) Safeguards (3S) for Advanced & Small Modular Reactors(A/SMRs): Summary of the Institute of Nuclear Materials Management's Workshop on Advanced Reactor 3S
11:30–11:45	354	<b>T. Honkamaa</b>	Finland / STUK	Safeguards by Design process of LDR-50 concept with consideration of safety and security
11:45–12:00	365	<b>C. Faucett</b>	United States of America / SNL	Applying 3S Lessons: Using Safety Concepts to Develop "Risk-Informed Safeguards" for Small Modular Reactors
12:00–12:15	<b>Discussion</b>			
12:15–14:00	<b>Lunch Break &amp; Side Event</b>			

## **WEDNESDAY, 23 OCTOBER 2024**

**10:45–12:15 TRACK D.13 – SESSION 13.1: SMRs in Energy Planning for Climate Change Mitigation**

**Room: M7**

**Chairpersons: A.Hahn (United States of America, DOE)  
J. Callen-Kovtunova (IAEA)**

**Rapporteur N. Trombetta (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
10:45–10:57	267	<b>M.A. Nyasapoh</b>	Ghana / GAEC	Incorporating Small Modular Reactors with Solar and Wind for Ghana's Sustainable Energy Transition Beyond Conventional Nuclear Power Ambition Post-COP28

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
10:57–11:09	89	<b>C. Vaglio-Gaudard</b>	France / CEA	The TANDEM Euratom project to study the integration of SMRs into low-carbon hybrid energy systems: mid-term progress
11:09–11:21	254	<b>S. Perez-Martin</b>	Germany / Karlsruhe Institute of Technology	ESFR-SMR Requirements to fit into the future EU electricity network
11:21–11:33	285	<b>J. Shin</b>	Korea / Korea Energy Economics Institute	Global Coal Plant Potential for Coal-to-SMR Transition: Focusing on i-SMR as a Representation of the Technology
11:33–11:45	91	<b>R.H. Ivask, A. Tkaczyk</b>	Estonia / University of Tartu	Techno-economic Analysis of SMR Deployment in the Estonian Power System
11:45–11:57	242	<b>N. Amosova</b>	Norway/ Norsk Kjernekraft AS	The green shift – extracting synergies from the oil and gas sector when establishing nuclear in Norway
11:57–12:15	<b>Discussion</b>			
12:15–14:00	<b>Lunch Break &amp; Side Event</b>			

## WEDNESDAY, 23 OCTOBER 2024

<b>12:30–13:45</b>	<b>SIDE EVENT: IAEA ACTIVITIES ON SMRs</b>	<b>Room: BR-B/M1</b>
		This side event highlights the IAEA activities and initiatives to support its Member States in the reliable deployment of SMRs. It presents the achievements and future plans of the IAEA with regard to SMRs. Member States perspectives will also be shared.
<b>Opening:</b>		<b>M. Chudakov (IAEA)</b>
<b>Moderator:</b>		<b>A. Constantin (IAEA)</b>
<b>Panelists:</b>		<b>F. Reitsma (IAEA/NE)</b> <b>P. Calle-Vives (IAEA/NS)</b> <b>J. Whitlock (IAEA/SG)</b> <b>J. Zhang (IAEA/TC/OLA)</b> <b>K. Khasavneh (Jordan)</b> <b>G.R. Sunaryo (Indonesia)</b> <b>R. Alberto Gonzalez Jimenez (El Salvador)</b>

Closing:

L. Evrard (IAEA)

## WEDNESDAY, 23 OCTOBER 2024

**14:00–15:30 TRACK A.2 – SESSION 2.1:**  
Advanced Fuels, Reprocessing, Waste  
Management and Decommissioning  
Aspects for SMRs – Safety, Design and  
Technology

**Room: BR-B/M1**

**Chairpersons:** A. Clark (IAEA)  
G. Kwong (IAEA)

**Rapporteurs:** S. Sandalova (IAEA), N. Farjallah (IAEA)

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
14:00–14:15	64	<b>A. Gonzalez Espartero</b>	IAEA	IAEA Coordinated Research Project on Challenges, Gaps and Opportunities for Managing Spent Fuel from SMRs
14:15–14:30	16	<b>K. Gillin</b>	Sweden / Vysus Group	Designing small modular reactors for a circular economy
14:30–14:45	299	<b>G. Žerovnik</b>	Germany / BASE	Characterisation of spent LWR fuel with SMR-relevant initial compositions and operational conditions
14:45–15:00	252	<b>T. Yildirim</b>	Sweden / WSP Sverige AB	Scoping calculation of spent nuclear fuel from NuScale's Power Module
15:00–15:15	175	<b>T. Aljuwaya</b>	Saudi Arabia / KACST	Investigation of hydrodynamic and scaling of TRISO coaters for high temperature small modular reactors
15:15–15:30	<b>Discussion</b>			
15:30–16:00	<b>Poster session &amp; Coffee break</b>			

## WEDNESDAY, 23 OCTOBER 2024

**14:00–15:30 TRACK B.7 – SESSION 7.2:**  
Regulatory Agility and New Approaches to  
Licensing SMRs

**Room: M3**

**Chairpersons:** R. Sardella (Switzerland, ENSI)  
V. Piotukh (IAEA)

**Rapporteur:** S. Mroz (IAEA)

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
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14:00–14:15	5	<b>E. Mayaka</b>	Kenya / KNRA	Adapting to Innovation: The Role of Regulatory Oversight in the Emerging Era of Small Modular Reactors
14:15–14:30	63	<b>S. Stuttaford</b>	United Kingdom / Castletown Law	A new approach to regulation
14:30–14:45	208	<b>G. Bowman</b>	United States of America / NRC	Adaptiveness of the US NRC Regulatory Framework to Review Risk-Informed SMR Designs
14:45–15:00	377	<b>S. Belyea</b>	Canada / CNSC	Regulatory agility through use of performance-based regulations.
15:00–15:15	419	<b>A. L. Barbosa Sousa</b>	Brazil / CNEN	The Brazilian Nuclear licensing process for disruptive and innovative technologies
15:15-15:30	<b>Discussion</b>			
15:30–15:45	<b>Poster session &amp; Coffee break</b>			

### WEDNESDAY, 23 OCTOBER 2024

**14:00–15:30 TRACK C.9 – SESSION 9: Emergency Preparedness and Response Considerations for SMRs** **Room: M0E100**

**Chairpersons:** **S. Israel (France, IRSN)**  
**F. Stephani (IAEA)**

**Rapporteur:** **S. Horvitz (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
14:00–14:12	314	<b>S. Lal</b>	Canada / CNL	Benchmarking Near-field Radionuclide Dispersion with CFD and Gaussian Model
14:12–14:24	111	<b>M. R. Harahap</b>	Indonesia / BAPETEN	Regulatory Recommendation in Determining Adequate Emergency Planning Zone for Multi Module Small Modular Reactor in Indonesia
14:24–14:36	357	<b>A. Guglielmelli</b>	European Commission	Release-Category-Based Emergency Planning Zone Calculation Applied to a Light-Water Small Modular Reactor Design
14:36–14:48	43	<b>D. Hummel</b>	Canada / CNL	A Method for Sizing Emergency Planning Zones around Small Modular Reactors and New Reactor Technologies



14:48–15:00	214	<b>P. Kopka</b>	Poland / NCBJ	Determining Emergency Planning Zone size through JRODOS calculated radiation dose consequences in High-Temperature Gas-Cooled Reactors
15:00-15:12	279	<b>R. Rockabrand</b>	United States of America / DOE/NNSA	How Artificial Intelligence and Small Modular Reactors Will Power Emergency Preparedness and Response
15:12–15:30	<b>Discussion</b>			
15:30–16:00	<b>Poster session &amp; Coffee break</b>			

## WEDNESDAY, 23 OCTOBER 2024

**14:00–15:30 TRACK C.10 – SESSION 10.3: Managing Interfaces between Safety and Security for SMRs** **Room: M2**

**Chairpersons:** **J.A. Bredenkamp (United States of America, Westinghouse)**  
**A. Acevedo (IAEA)**

**Rapporteur:** **Z. Stone (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
14:00–14:15	59	<b>A. Huning</b>	United States of America / ORNL	Recommendations for Design-Stage Safety and Security Probabilistic Risk Assessment Co-Development
14:15–14:30	154	<b>J. Mahanes</b>	United States of America / INL	Approaches for Comprehensive Safety and Digital Risk Management for Advanced Nuclear Technology and Small Modular Reactors
14:30–14:45	212	<b>D. Lisowski</b>	United States of America / ANL	Identifying sabotage risks and adversarial Threats to passive Decay heat removal systems in advanced nuclear reactors
14:45–15:00	234	<b>W.S. Edwards</b>	WNTI	Safety and Security of SMRs in marine applications and the Applicability of IAEA's Safety Standards
15:00–15:15	238	<b>M. St. John-Green;</b>	United Kingdom / Mike St.John-Green Ltd;	Achieving resilience through the preservation of functions - safety and security working together
15:15–15:30	<b>Discussion</b>			
15:30–16:00	<b>Poster session &amp; Coffee break</b>			

## WEDNESDAY, 23 OCTOBER 2024

**14:00–15:30**    **TRACK D.13 – SESSION 13.2:**  
**SMRs in Energy Planning for Climate  
Change Mitigation**

**Room: M7**

**Chairpersons:**    **C. Vaglio-Gaudard (France, CEA)**  
**J. Callen-Kovtunova (IAEA)**

**Rapporteur:**    **N. Trombetta (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
14:00–14:12	17	<b>M. D. Shnawa</b>	Iraq / Iraqi Atomic Energy Authority	Evaluation of Potential Locations for Siting Small Modular Reactors in Iraq to Support Clean Energy Goals
14:12–14:24	44	<b>E. Bofo</b>	Ghana / GAEC	Nuclear-Renewable Hybrid Energy Systems: Considerations for Future Deployment in Ghana
14:24–14:36	67	<b>R. Soja</b>	Nigeria / NNRA	Integrating Small Modular Reactors (SMRs) into Nigeria's Energy Mix. Prospect toward near-term deployment.
14:36–14:48	385	<b>C Mariani; M. Ricotti</b>	Italy / Politecnico di Milano	Enabling factors for Small Modular Reactors (SMR) uptake in Bolivian future power system
14:48–15:00	148	<b>S.F. Sawe</b>	Tanzania / Tanzania Atomic Energy Commission	Potential Deployment of a Small Modular Reactor to Run the Standard Gauge Rail Network in Tanzania
15:00-15:12	8	<b>C.A. Prieto Valderrama</b>	Colombia / Javeriana University	Relationship between SMR and Planetary Boundaries: A mitigation strategy for the global environmental crisis
<b>15:12–15:30</b>	<b>Discussion</b>			
<b>15:30–16:00</b>	<b>Poster session &amp; Coffee break</b>			

## WEDNESDAY, 23 OCTOBER 2024

**16:00–17:30**    **TRACK A.2 – SESSION 2.2:**  
**Advanced Fuels, Reprocessing, Waste  
Management and Decommissioning  
Aspects for SMRs – Safety, Design and  
Technology**

**Room: BR-B/M1**

**Chairpersons:**    **A. Gonzalez-Espartero (IAEA)**  
**A. Gomez Cobo (IAEA)**

**Rapporteurs:**    **S. Sandalova (IAEA), N. Farjallah (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
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16:00–16:15	126	<b>M. Sokcic-Kostic</b>	Germany / NUKEM Technologies Engineering Services GmbH	Facilitating SMR fuel fabrication from HALEU UF6
16:15–16:30	76	<b>A. Lever</b>	United Kingdom / Nuclear Transport Solutions	The Development of a Versatile Type B(U)F Transport Package to Support the Front-End Fuel Cycle of Gen-IV Reactors
16:30–16:45	391	<b>B. Nixon</b>	United Kingdom / newcleo	newcleo's Fuel Cycle innovations for SMR-LFR including transport of fresh and spent fuels
16:45–17:00	309	<b>H. Lestani</b>	Argentina / CNEA	CAREM 25 fuel cycle optimization and ATF evaluation
17:00–17:30	<b>Discussion</b>			

### WEDNESDAY, 23 OCTOBER 2024

**16:00–17:30 TRACK C.11 – SESSION 11.2: Room: M3**  
**Strengthening the Foundations: SMR Security by Design**

**Chairpersons:** **A. Iyengar (United States of America, DOE/NNSA)**  
**A. Acevedo (IAEA)**

**Rapporteur:** **M. Erdman (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
16:00–16:15	-	<b>S. Zeeshan</b>	IAEA	IAEA's Role in Advancing Security by Design
16:15–16:30	253	<b>A. Williams</b>	United States of America / SNL	Incorporating International Considerations into Systems Engineering and Regulatory Lifecycle-Based Framework for Security-by-Design
16:30–16:45	381	<b>R. Peel</b>	United Kingdom / King's College London	Insider Threat Security Considerations for Advanced and Small Modular Reactors
16:45–17:00	202	<b>A. Malabirade</b>	France / Ministry of Ecological Transition	Security by Design: Understanding how to Apply it to SMR
17:00-17:15	270	<b>K. Kwon</b>	Republic of Korea / KINAC	Standard design review areas for security-by-design of SMRs
17:15–17:30	<b>Discussion</b>			

## WEDNESDAY, 23 OCTOBER 2024

**16:00–17:30**      **TRACK 12 – SESSION 12.1:**      **Room: M2**  
**Safeguards for SMRs: Preparing for Implementation**

**Chairpersons:**    **B. Aranguren (United States of America, DOE/NNSA)**  
**S. Poghosyan (IAEA)**

**Rapporteur:**      **K. Baird (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
16:00–16:15	300	<b>J. Whitlock</b>	IAEA	Safeguards by design: preparing for Small Modular Reactors
16:15–16:30	174	<b>T. Aljuwaya</b>	Saudi Arabia / KACST	An overview of safeguards challenges and opportunities for small modular reactors
16:30–16:45	10	<b>N. Mayhew</b>	VCDNP	Safeguards by Design and Advanced Reactors: Overcoming the Catch-22 to Implementation
16:45–17:00	304	<b>M. Kent</b>	Canada / CNSC	Canada's safeguards readiness for small modular and advanced reactors
17:00–17:15	400	<b>KJ. Steenhoek</b>	United States of America / DOE/NNSA	United States Cooperative Nuclear Facilities and Safeguards Experience (NFASE) with the CNSC and EURATOM
17:15–17:30		<b>Discussion</b>		

## WEDNESDAY, 23 OCTOBER 2024

**16:00–17:30**      **TRACK D.15 – SESSION 15.2:**      **Room: M7**  
**Contracting, Finance and Risk Management**

**Chairpersons:**    **G. Borovas (United States of America, Hunton Andrews Kurth)**  
**N. Mberia (IAEA)**

**Rapporteur:**      **M. Larsen (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
16:00–16:15	199	<b>F. Tassone</b>	Italy / Politecnico di Milano	Economic Analysis of Thermal Energy Storage Integration in Small Modular Reactors Balance of Plant

16:15–16:30	122	<b>S. Rozhenko</b>	Russian Federation / JSC Kept	Extended assessment of nuclear and alternative electricity generating technologies based on their impact on national GDP (Cost-to-GDP concept)
16:30–16:45	425	<b>A. Paterson</b>	United States of America / Nuclear Industry Council	Deployment of SMRs: a Risk-based Framework for “Public-Private Investment Partnerships 3.0”
16:45–17:00	153	<b>A. Van Heek</b>	Netherlands / Nuclear-21	Controlling Investment Risks by Integrating Decommissioning by Design in SMR Development
17:00–17:30		<b>Discussion</b>		

## WEDNESDAY, 23 OCTOBER 2024

<b>17:45–20:00</b>	<b>SMRS AND MICROREACTORS: TOWARDS A SUSTAINABLE AND EQUITABLE FUTURE (YOUNG GENERATION EVENT)</b>	<b>Room: BR-B/M1</b>
	<p>This multigenerational, multidisciplinary panel will delve into the opportunities and challenges posed by SMRs and microreactors. Initially, it will examine how these reactors facilitate rapid deployment (modularity), cost-effectiveness (equity), and versatility for various applications (electric and non-electric) across diverse settings (suburban and urban), aiding in our journey towards a net-zero future. Subsequently, it will address the myriad challenges associated with these reactors, encompassing licensing, safeguards, fostering a diverse global workforce, and restructuring regulatory frameworks.</p>	
<b>Opening:</b>	<b>S. Shrum (United States of America, DOE/NNSA)</b>	
<b>Moderator:</b>	<b>K. Madden (IAEA)</b>	
<b>Panelists:</b>	<b>J. Whitlock (IAEA)</b> <b>K. Khasawneh (Jordan, JAEC)</b> <b>F. Quansah (Ghana, GAEC)</b> <b>M. Cohen (United States of America, EFI Foundation)</b> <b>J. Zychowicz, (Poland, GE Hitachi)</b> <b>A. Abadia Zapata (Colombia, Ministry of Energy and Mines)</b>	

## THURSDAY, 24 OCTOBER 2024

<b>09:00–10:15</b>	<b>PLENARY: CAPACITY BUILDING – A DRIVER FOR ACCELERATED DEPLOYMENT OF SMRS</b>	<b>Room: BR-B/M1</b>
	<p>This panel emphasizes the importance of capacity building efforts, plans and activities to accelerate the SMR deployment in embarking Member States from different perspectives. Experiences and projects from government, regulators, universities and key organizations will be presented showcasing a broad variety of cases and applications that will illustrate the richness of different scenarios.</p>	
<b>Moderator:</b>	<b>P. Dieguez Porras (IAEA)</b>	
<b>Panelists:</b>	<b>B. Albuquerque (Brazil, ABDAN)</b> <b>A. Buah Kwofie (Ghana, GAEC)</b> <b>G.R. Sunaryo (Indonesia, BRIN)</b> <b>K. Mrabit (Morocco, Ministry of Energy, Mines, Water and Environment)</b> <b>K. Kalend (Poland, ORLEN Synthos Green Energy)</b>	
<b>Closing:</b>	<b>L. Dulinets (IAEA)</b>	
<b>10:15–10:45</b>	<b>Poster session &amp; Coffee break</b>	

## THURSDAY, 24 OCTOBER 2024

<b>10:45–12:15</b>	<b>TRACK A.3 – SESSION 3.1: Engineering, Codes &amp; Standards, Supply Chain, Operation and Maintenance of SMRs</b>	<b>Room: M3</b>
<b>Chairpersons:</b>	<b>J. Kickhofel (Apollo+)</b> <b>P. Pyy (IAEA)</b>	
<b>Rapporteurs:</b>	<b>S. Kang (IAEA), M. Kabiri (IAEA)</b>	

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
10:45–11:00	66	<b>J. Niepceron</b>	France / NUWARD	Progress of steel concrete structures codifications for SMRs
11:00-11:15	158	<b>L. Huang</b>	China / Hainan Nuclear Power Co.,Ltd	Research on Digital Intelligent Operation and Maintenance Technology for SMR
11:15-11:30	258	<b>H. Hashemian</b>	United States of America / AMS	Latest news on deployment of SMRs and AMRs in the United States
11:30–11:45	272	<b>N. Prinja</b>	United Kingdom / Jacobs Clean Energy	AI for Design, Engineering, Construction and Operation of SMRs

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
11:45–12:00	251	<b>A. Duthou</b>	France / Framatome	Addressing SMRs safety I&C specific requirements
12:00–12:15	<b>Discussion</b>			
12:15–14:00	<b>Lunch Break &amp; Side Event</b>			

## THURSDAY, 24 OCTOBER 2024

**10:45–12:15 TRACK A.5 – SESSION 5.1: Non-Electric Applications for SMR** **Room: M2**

**Chairpersons:** **C. Vaglio-Gaudard (CEA, France)**  
**F. Ganda (IAEA)**

**Rapporteurs:** **M.E. Urso (IAEA), M. K. Gavello (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
10:45–10:57	28	<b>M. De Lourdes Moreira</b>	Brazil / CNEN	Electricity and Water cogeneration using a Small 75MWth PWR
10:57–11:09	54	<b>M. Cioffi</b>	Italy / Ansaldo Energia	Poly-generation of power and desalinated water by Small Modular Reactors
11:09–11:21	79	<b>P. Amphoux</b>	France / CEA	IDNES a CEA project dedicated to SMR concept for decarbonization beyond pure power generation
11:21–11:33	95	<b>P. Gilski</b>	Poland / OSGE	Challenges in development of cogeneration module for SMRs
11:33–11:45	131	<b>H. Ur Rehman</b>	Pakistan / PIEAS	Assessing Viability of Small Modular Reactors in Pakistan's Energy Landscape: Navigating Technological Diversity and Challenges in Possible Integration with Renewables
11:45–11:57	271	<b>S. AlSanad</b>	Kuwait	Stakeholder Perspectives on Challenges in Integrating and Developing Infrastructure for Small Modular Reactors (SMRs) in Kuwait
11:57–12:15	<b>Discussion</b>			
12:15–14:00	<b>Lunch Break &amp; Side Event</b>			

## THURSDAY, 24 OCTOBER 2024

**10:45–12:15 TRACK B.7 – SESSION 7.3: SMR Licensing Challenges and Regulatory Readiness** **Room: M7**

**Chairpersons:** A. Ferapontov (Russia)  
S. Ali (IAEA)

**Rapporteur:** S. Gandhi (IAEA)

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
10:45–11:00	101	<b>J. Rega</b>	Belgium / Tractebel	Licensing Challenges for Risk-Informed Small Modular Reactor Designs in European Deterministic Regulatory Frameworks
11:00–11:15	135	<b>M. Asghar</b>	Pakistan / PAEC	Issues and Challenges of Regulatory Framework for Deployment of SMRs – Pakistan Perspective
11:15–11:30	298	<b>J.L. Sablay</b>	Philippines / PNRI	Regulatory Readiness and Challenges for Small Modular Reactors Deployment: The Philippine Perspective
11:30–11:45	363	<b>M. Lehtonen</b>	Spain / Universitat Pompeu Fabra	The role of regulation as an obstacle or an enabler of the SMR promise? Diverging industry and regulator views
11:45–12:00	427	<b>H. Khouaja</b>	Canada / Reactor Safety Insights Ltd	Basis for Regulatory Requirements for Design and Safety Analysis of Reactor Facilities
12:00–12:15	<b>Discussion</b>			
12:15–14:00	<b>Lunch Break &amp; Side Event</b>			

## THURSDAY, 24 OCTOBER 2024

**10:45–12:15**      **TRACK C.11 – SESSION 11.3:**      **Room: M0E100**  
**Computer Security for SMRs:**  
**Protecting the Digital Frontline**

**Chairpersons:** R. Busquim (IAEA)  
I. Arenaza (Argentina, CNEA)

**Rapporteur:** M. Erdman (IAEA)

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
10:45–11:00	226	<b>T. Kim</b>	Republic of Korea / KAERI	Introduction of a Cyberattack Detection Framework for Safety Systems of NPPs
11:00–11:15	249	<b>S. Boulley, A. Benoit Rosario</b>	France / IRSN	Cybersecurity Matter for Remote Access of SMR



11:15–11:30	301	<b>T. Rivera</b>	United States of America / NRC	NRC Regulatory Efforts for Cybersecurity of Small Modular Reactors
11:30–11:45	322	<b>G. Abdiyeva-Aliyeva</b>	Azerbaijan / State Service Special Communication and Information Security	Machine Learning Solutions for Enhanced Security in Small Modular Reactors (SMRs): A Comprehensive Approach
11:45–12:15	<b>Discussion</b>			
12:15–14:00	<b>Lunch Break &amp; Side Event</b>			

## THURSDAY, 24 OCTOBER 2024

**10:45–12:15 TRACK D.14 – SESSION 14.1: Opportunities for Acceleration** **Room: BR-B/M1**

**Chairpersons:** **M. Constantin (Romania, RATEN ICN)**  
**E. Mathet (IAEA)**

**Rapporteur:** **S. Seely (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
10:45–11:00	41	<b>Y. Chernyakhovskaya</b>	Russian Federation / RosatomService JSC, Rosatom	Development of nuclear infrastructure based on different contracting models and risks assessment
11:00–11:15	415	<b>M. Ozerina</b>	IAEA	Considerations on the Accelerated Deployment of SMRs
11:15–11:30	106	<b>D. Dean</b>	IBNI	International Bank for Nuclear Infrastructure (IBNI) – A comprehensive and multi-dimensional solution to enable accelerated global scaling of SMRs
11:30–11:45	374	<b>S. Iqbal</b>	Canada / Candu Owners Group	CANDU Owners Group: Excellence through Collaboration for an Evolving Nuclear Landscape
11:45–12:00	96	<b>K. Kalend</b>	Poland / OSGE	Plans for building organizational and human capacity under OSGE's nuclear power program
12:00–12:15	<b>Discussion</b>			
12:15–14:00	<b>Lunch Break &amp; Side Event</b>			

## THURSDAY, 24 OCTOBER 2024

<b>12:30–13:45</b>	<b>SIDE EVENT: SMR REGULATORS' FORUM</b>	<b>Room: BR-B/M1</b>
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**(SMR RF) AT 10 YEARS (2014-2024)**

This side event highlights the accomplishments of the SMR Regulators' Forum upon its 10th anniversary and discusses key SMR regulatory issues and how the work of the SMR RF has helped to address them. It also discusses future plans of the SMR RF.

**Opening:** **A. Hajduk Bradford (IAEA)**  
**Š. Kochánek (Czech Republic, SUJB)**

**Moderator:** **P. Calle-Vives (IAEA)**

**Panelists:** **S. Belyea, (CNSC, SMR RF WG 1 Chair)**  
**S. Eaton (Canada, CNSC)**  
**K. Künzel (Czech Republic, SUJB)**  
**E. Ahonen (Finland, STUK)**  
**T. Buckenmeyer (France, ASN)**

**Closing:** **M. Bamber (United Kingdom, ONR)**

**THURSDAY, 24 OCTOBER 2024**

**14:00–15:30** **TRACK A.5 – SESSION 5.2:** **Room: M3**  
**Non-Electric Applications for SMR**

**Chairpersons:** **M. Ricotti (Italy, Politecnico di Milano)**  
**D. Babu (India, BARC)**

**Rapporteurs:** **M.E. Urso (IAEA), M. K. Gavello (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
14:00–14:15	211	<b>E. Lambridis</b>	Belgium / Tractebel	Decarbonizing Refining Processes: SMR deployment paving the way to Synthetic Fuels
14:15–14:30	282	<b>G. R. Sunaryo</b>	Indonesia / BRIN	Strategic Implications of the 10MW Experimental Power Reactor (RDE) in Non-Electric Nuclear Power Generation Applications in Indonesia
14:30–14:45	323	<b>O. Y. Kutlu</b>	Türkiye / TENMAK	Techno-Economic Analysis of SMR Cogeneration with Desalination: A Case Study in Türkiye
14:45–15:00	330	<b>A. S. Epiney</b>	United States of America / INL	FORCE: A modeling approach to increase the value proposition for SMRs in non-electric applications
15:00–15:15	375	<b>F. B. Quansah</b>	Ghana / GAEC	Mapping the hydrogen economy in Ghana: the strategic contribution of Small Modular Reactors
15:15–15:30		<b>Discussion</b>		

## **THURSDAY, 24 OCTOBER 2024**

**14:00–15:30**      **TRACK B.6 – SESSION 6.2:**      **Room: M7**  
National Perspective on Legal  
Frameworks for SMRs

**Chairpersons:**    **M. Man (United States of America / PNNL)**  
                          **J. Herbach (IAEA)**

**Rapporteur:**      **J. Silye (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
14:00–14:15	-	<b>J.D. Herbach</b>	IAEA	Developing the National Legal Framework and IAEA Legislative Assistance
14:15–14:30	209	<b>C. Owino</b>	Kenya / NuPEA	Applicability of Kenya's Legal Framework to Support the Deployment of Small Modular Reactor
14:30–14:45	240	<b>M. Turner</b>	Slovakia / UJD SR	Legal and Regulatory Challenges in Introducing SMR Technologies in Slovakia
14:45–15:00	359	<b>A. O. Mowitz</b>	Sweden / Swedish Government Inquiries	From Unclear to Nuclear - Towards a more effective licensing process in Sweden
15:00–15:15	378	<b>K. Adamczyk</b>	Poland / PGE PAK Energia Jadrowa	Legal, institutional and policy instruments to facilitate deployment of nuclear power plants in Poland, including SMRs
15:15–15:30	<b>Discussion</b>			
15:30–16:00	<b>Poster Session &amp; Coffee break</b>			

## **THURSDAY, 24 OCTOBER 2024**

**14:00–15:30**      **TRACK C.8 – SESSION 8.3:**      **Room: M2**  
SMRs Safety Demonstration

**Chairpersons:**    **E. Courtin (Framatome)L. Man (IAEA)**  
                          **L. Videla (IAEA)**

**Rapporteur:**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
14:00–14:12	99	<b>M. Akmal</b>	France / Assystem	Evolving PSA methodologies: Towards dynamic reliability in SMR passive systems
14:12–14:24	255	<b>J. Sanchez-Torrijos</b>	Spain / NFAQ Advisory Services S.L.	Analysis of DEC-A sequences in a NUSCALE-like SMR considering ATF fuel performance using the system code
14:24–14:36	280	<b>P. Elistratov</b>	Russian Federation / NIKIET	Probabilistic safety analysis of the first level of small modular reactors using the example of the SHELF-M RF
14:36–14:48	316	<b>M. Obergfell</b>	Germany / GRS	Small modular reactor multi-module PSA
14:48–15:00	373	<b>M. Skrzypek</b>	Poland / NCBJ	Coupled thermal-hydraulic and neutronic deterministic safety analysis for the HTGR SMR research demonstrator HTGR-POLA
15:00–15:12	414	<b>I. Basic</b>	Croatia / APoSS d.o.o	Context of single failure criterion (SFC) application for small modular reactors (SMR)
15:15–15:30	<b>Discussion</b>			
15:30–16:00	<b>Poster session &amp; Coffee break</b>			

## THURSDAY, 24 OCTOBER 2024

**14:00–15:30 TRACK D.14 – SESSION 14.2: Assessments and Feasibility Studies Room: M1**

**Chairpersons:** **V. Nkong-Njock (ITNA, Senegal)**  
**F. Tonos Paniaga (IAEA)**

**Rapporteur:** **S. Seely (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
14:00–14:15	42	<b>M. Constantin</b>	Romania / RATEN ICN	Analysis of SMR Implementation in Romanian Energy System
14:15–14:30	429	<b>H.J. Kim</b>	WANO	WANO Services to Support Successful New Nuclear Reactor Deployment
14:30–14:45	340	<b>J. Best, S. Pecko</b>	United States of America / Sargent & Lundy LLC	Feasibility Study for Deployment of Future SMR in IAEA Member Country
14:45–15:00	435	<b>G. Cardoso</b>	Nucleareurope	Recent EU legislative proposals and the impact on SMR technologies deployment

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
15:00–15:30		<b>Discussion</b>		
15:30–16:00		<b>Poster session &amp; Coffee break</b>		

## THURSDAY, 24 OCTOBER 2024

**16:00–17:30 TRACK A.3 – SESSION 3.2:** **Room: M3**  
**Engineering, Codes & Standards, Supply Chain, Operation and Maintenance of SMRs**

**Chairpersons:** **P. Pyy (IAEA)**  
**A. Khaperskaia (IAEA)**

**Rapporteurs:** **S. Kang (IAEA), M. Kabiri (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
16:00–16:12	292	<b>T. Walter</b>	Germany / PreussenElektra GmbH	The IEC Standard Series on Cybersecurity for I&C and Electrical Systems For Operating and Small Modular Reactors
16:12–16:24	305	<b>A. Milibari</b>	Saudi Arabia / KACST	Recent Advancements of Metallic Materials for Integral Molten Salt Reactors
16:24–16:36	353	<b>S. Choudhury</b>	United States of America / UC San Diego	Flexibility limits in Small modular reactors for enhanced load following
16:36–16:48	371	<b>N.J. Barron</b>	Netherlands / Nuclear Research and consultancy Group (NRG)	Design of a reusable Materials Irradiation Devlce (MIDI) in High Flux Reactor in Petten for testing and qualification of SMR materials
16:48–17:00	114	<b>E. Dagorn</b>	France / Bureau Veritas	Challenges for serial deployment of SMRs: A certification body's point of view
17:00–17:12	191	<b>H. Nam</b>	Republic of Korea/ Korea Hydro & Nuclear Power Central Research Institute	Maintenance Strategy for i-SMR
17:12–17:30		<b>Discussion</b>		

## THURSDAY, 24 OCTOBER 2024

**16:00–17:30 TRACK C.8 – SESSION 8.4:** **Room: M0E100**  
**SMR Safety Research and Technology Solutions**

**Chairpersons:** **D. Hummel (Canada, CNL)**

**A. Constantin (IAEA)****Rapporteur: D. Sirotkin (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
16:00–16:15	83	<b>F. Mascari</b>	Italy / ENEA	Horizon Euratom SASPAM-SA: Main ideas and first outcomes
16:15–16:30	97	<b>J. Fontanet</b>	Spain / CIEMAT	CIEMAT's contributions to the research on SMR safety and design
16:30–16:45	204	<b>G. Briggs</b>	United Kingdom / James Walker Sealing Products & Services	Flange management approach for reliable SMR reactor vessel integrity
16:45–17:00	356	<b>S. Anand</b>	India / BARC	Aerosol evolution in a typical SMR containment under hypothetical accidental conditions
17:00–17:15	362	<b>H. Nakamura</b>	Japan / JAEA	Accelerating international cooperation on SMR safety research
17:15–17:30	<b>Discussion</b>			

**THURSDAY, 24 OCTOBER 2024****16:00–17:30 TRACK D.14 – SESSION 14.3: Member States' Experiences in Infrastructure Development****Room: BR-B/M1****Chairpersons: K. Kalend (Poland, OSGE)  
S. Debrah (IAEA)****Rapporteur: S. Seely (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
16:00–16:15	416	<b>V. Nkong-Njock</b>	Cameroon / Ilemel Energy solutions	Opportunities and Challenges in Introducing SMRs in the ECOWAS Region
16:15–16:30	90	<b>E. Obande</b>	Nigeria / Nigeria Atomic Energy Commission	Considerations for the More Viable Option in the Deployment of Traditional Nuclear Power Plants (NPPs) and/or Small Modular Reactors (SMRs) for the West African Sub-Region
16:30–16:45	104	<b>T. Aljuwaya</b>	Saudi Arabia / KACST	Navigating the Energy Landscape: Considerations for Deploying Small Modular Reactors in Saudi Arabia

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
16:45–17:00	62	<b>M. Amoah Nyasapoh / F. Ameyaw</b>	Ghana / GAEC	Integration of Small Modular Reactors (SMRs) in Ghana's Energy Mix: A Pathway to Sustainable Development
17:00–17:15	169	<b>C. Mavag</b>	Mongolia / Nuclear Energy Commission	Status of National Nuclear Energy Programme in Mongolia
17:15–17:30	<b>Discussion</b>			

## THURSDAY, 24 OCTOBER 2024

**16:00–17:30 TRACK D.15 – SESSION 15.3: Contracting, Finance and Risk Management** **Room: M2**

**Chairpersons:** **A. Van Heek (Netherlands, Nuclear-21)**  
**M. Cometto (IAEA)**

**Rapporteur:** **M. Larsen (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
16:00–16:15	387	<b>R. Duncan</b>	United States of America / Last Energy	Mitigating FOAK Risk in SMR Deployment: Insights from Contracting Approaches
16:15–16:30	222	<b>I. Pletukhina</b>	United States of America / Hunton Andrews Kurth LLP	Demystifying a Contract: Why Contract Price is not the Cost of the Project
16:30–16:45	223	<b>C. Grygier</b>	United States of America / Hunton Andrews Kurth LLP	From Design to Deployment: Project Management for Successful Completion
16:45–17:00	49	<b>M. Kovachev</b>	Bulgaria / IBNI SAG	Innovative financing solution to scale nuclear investments - The international Bank for Nuclear Infrastructure
17:00–17:15	311	<b>M. Shimofuji</b>	Japan/ ZettaJoule	Facilitating SMR Development through Sustainable Project Financing: Perspective of a Developer
17:15–17:30	<b>Discussion</b>			

## THURSDAY, 24 OCTOBER 2024

16:00–17:30

**TRACK C.11 – SESSION 11.4:**  
**Stakeholder Perspectives on Nuclear  
Security of SMRs**

**Room: M7**

**Chairpersons:** **C. Romao (Brazil, Brazilian Institutional Security Cabinet)**  
**H. Looney (IAEA)**

**Rapporteur:** **A. Acevedo (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
16:00–16:15	187	<b>S. Marogulov</b>	Russian Federation / Rosatom	General Approaches to Physical Protection of Small Modular Reactors
16:15–16:30	383	<b>R. Peel</b>	United Kingdom / King's College London	Nuclear Industry Views on the Security of Small Modular Reactors
16:30–16:45	200	<b>A. Adeniyi</b>	United States of America / ORNL	Development of a Robust Framework for Security Assessment of Safety-Informed Siting Decisions under Uncertainty
16:45–17:00	409	<b>J.C. Garcia</b>	Brazil / IPA	A review on Security in Small Modular Reactors and Micro Nuclear Reactors
17:00–17:15		<b>V. Tafili</b>	IAEA	Increasing Visibility and Awareness of Nuclear Security through Communication
17:15–17:30		<b>Discussion</b>		



## FRIDAY, 25 OCTOBER 2024

09:00–10:30 TRACK A.5 – SESSION 5.3: Non-Electric Applications for SMR Room: M7

Chairpersons: K. Khasawneh (Jordan, JAEC)  
M. E. Urso (IAEA)

Rapporteur: M. K. Gavello (IAEA)

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
09:00–09:12	109	<b>M. Kandil</b>	Egypt / EAEA	Comparison between a Small Modular Reactor and a traditional nuclear reactor in water desalination cogeneration application
09:12–09:24	360	<b>G. Simonini</b>	France / EDF	Integrating Small Modular Reactors into Hybrid Energy Systems: the TANDEM Modelica library
09:36–09:48	188	<b>B. Almutairi</b>	Kuwait / Kuwait Institute for Scientific Research	Evaluating the Viability of Small Modular Reactors for Non-Electric Applications in Kuwait: A Preliminary Assessment
09:48–10:00	161	<b>W. Dridi</b>	Tunisia / CNSTN	Nuclear Hydrogen Production Analysis for GT-HTR using HEEP Software
10:00–10:12	307	<b>G. Masotti</b>	Italy / Politecnico di Milano	Simulation of flexible Small Modular Reactor operation with a thermal energy storage system
10:12–10:30	<b>Discussion</b>			
10:30–11:00	<b>Coffee break</b>			

## FRIDAY, 25 OCTOBER 2024

09:00–10:30 TRACK B.7 – SESSION 7.4: Current Licensing Activities and Technology-specific Considerations Room: M3

Chairpersons: L. Mpete (South Africa, NNR)  
K. Alm-Lytz (IAEA)

Rapporteur: S. McDuffie (IAEA)

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
09:00–09:15	61	<b>D. Mistryugov</b>	Russian Federation / SEC NRS	Approaches to Improving Safety Requirements in Connection with the Development and Implementation of Small Modular Reactor Technologies

09:15–09:30	137	<b>I. Bykh; I. Yurina</b>	Russian Federation / Afrikantov OKBM	Features and Principles of Regulatory Regulation for the Project of Land-Based SNPP with RITM200N Reactor Plant
09:30–09:45	177	<b>S. J. Yoon</b>	Republic of Korea / KHNP	Regulatory Gap Analysis for i-SMR
09:45–10:00	331	<b>A. Spalding</b>	United States of America / Westinghouse	Regulatory considerations for the transportable eVinci microreactor
10:00–10:15	345	<b>D. Papaz</b>	Canada / CNSC	Regulatory requirements for managing supply chain for Small Modular Reactors in Canada
10:15–10:30		<b>Discussion</b>		
10:30–11:00		<b>Coffee break</b>		

## FRIDAY, 25 OCTOBER 2024

**09:00–10:30 TRACK C.12 – SESSION 12.2: Safeguards for SMRs: Meeting Technical Challenges Room: M2**

**Chairpersons: N. Joergensen (Denmark, Seaborg)  
J. Whitlock (IAEA)**

**Rapporteur: K. Baird (IAEA)**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
09:00–09:15	151	<b>J.A. Bredenkamp</b>	United States of America / Westinghouse	Westinghouse Electric Company: Decarbonization of the Electric Power Sector and the Challenges Facing Advanced Reactors to incorporate Safety, Security and Safeguards Measures
09:15–09:30	197	<b>V. Mishra</b>	Sweden / Uppsala University	Nuclear safeguards assessments of molten salt reactor spent fuel
09:30–09:45	399	<b>R. Smith</b>	United States of America / DOE/NNSA	U.S.-U.K. Bilateral Collaboration on a Material Flow Safeguards Analysis for a Nominal Molten Salt Reactor Design
09:45–10:00	410	<b>J. Hu</b>	United States of America / ORNL	Identifying Technical Challenges in Safeguards Measurements of Advanced Small Modular Reactor Fuel Elements
10:00–10:30		<b>Discussion</b>		
10:30–11:00		<b>Coffee break</b>		

## FRIDAY, 25 OCTOBER 2024

09:00–10:30 TRACK D.16 – SESSION 16:  
Public and Stakeholder Engagements in  
SMR Development and Deployment

Room: BR-B/M1

Chairpersons: G. Pavel (ENEN)  
I. Chatzis (IAEA)

Rapporteur: A. Andriushina (IAEA)

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
09:00–09:15	81	<b>A. Meliana</b>	Indonesia	Securing Small Modular Reactor Development in Remote Areas: Case Studies and Cultural Analysis in Indonesia
09:15–09:30	232	<b>M. Idzat Bin Idris</b>	Malaysia	Study of Knowledge and Public Awareness of Small Modular reactors in Malaysia
09:30–09:45	408	<b>B. R. Carvalho</b>	Brazil	Systematic review on public perception and acceptance of small modular reactors: challenges and strategies
09:45–10:00	184	<b>I. Kirsten</b>	VCDNP	The value of early engagement between stakeholders to ensure successful deployment of SMRs in the Global South
10:00–10:15	364	<b>J.N. Widyamanto</b>	Germany	Resilient energy systems as a goal for risk-informed approach in developing small modular reactors (SMRs)
10:15–10:30		<b>Discussion</b>		
10:30–11:00		<b>Coffee break</b>		

## FRIDAY, 25 OCTOBER 2024

<b>11:00–12:15</b>	<b>PLENARY: INNOVATIVE INDUSTRIAL INVOLVEMENT: FROM DESIGN TO MANUFACTURING</b>	<b>Room: BR-B/M1</b>
	<p>This panel emphasizes the importance of capacity building efforts, plans and activities to accelerate the SMR deployment in embarking Member States from different perspectives. Experiences and projects from government, regulators, universities and key organizations will be presented showcasing a broad variety of cases and applications that will illustrate the richness of different scenarios.</p>	
<b>Moderator:</b>	<b>A. Dutta Ray (IAEA)</b>	
<b>Panelists:</b>	<b>S. Iqbal (Canada, CANDU Owner's Group)</b> <b>S. Zu (China, CNNP)</b> <b>A. Guyot (France, Jimmy Energy SAS)</b> <b>A. Volgin (Russian Federation, JSC Rusatom Energy Projects)</b> <b>N. Amosova (Switzerland, Apollo Plus)</b> <b>M. Nichol (United States, Nuclear Energy Institute)</b>	

## FRIDAY, 25 OCTOBER 2024

<b>12:15–13:00</b>	<b>CLOSING PLENARY SESSION</b>	<b>Room: BR-B/M1</b>
<b>Panelists:</b>	<b>Maria Korsnick, Conference President, United States of America</b> President and Chief Executive Officer, Nuclear Energy Institute	
	<b>Marco Ricotti, Conference Chair, Italy</b> Professor, Politecnico di Milano	
	<b>Mikhail Chudakov</b> Deputy Director General and Head of the Department of Nuclear Energy, IAEA	
	<b>Lydie Evrard</b> Deputy Director General and Head of the Department of Nuclear Safety and Security, IAEA	

## **Poster Presentations**

**TUESDAY, 22 OCTOBER 2024**

**10:15–10:45 POSTER SESSION A.1:**  
**15:30–16:00 Design and Technology Development of**  
**Small Modular Reactors**

Paper No.	Author(s)	Designating Member State/Organization	Title of Paper	Poster no.
36	<b>M. Bedretdinov</b>	Russian Federation / OKB Gidropress JSC	Thermal-Hydraulic Calculations for the New Integral Small Modular Reactor VVER-I With Natural Circulation in Primary Circuit	1
53	<b>A. Gonin</b>	Russian Federation / Leypunsky Institute for Physics and Power Engineering	Experimental Capability for Investigations of Thermal-Hydraulic Processes And Critical Heat Fluxes on Full-Scale Models of Rod Assemblies for Small Modular Reactors	2
15	<b>J. Riverola Gurruchaga</b>	Spain / ENUSA	Stability Analysis of an SMR with Lyapunov Methods	3
20	<b>Y. Abbassi</b>	Iran / Nuclear Science and Technology Research Institute	Effect of strong n-th coupling on core design calculations based on a typical 100 MWe integral PWR design	4
26	<b>R. 3 (TBC)</b>	Canada / McMaster University	Neutronics Design Optimization of a Sodium Cooled Micro Modular Fast Reactor Using OpenMC	5
45	<b>S. El-Din El-Morshedy</b>	Egypt / EAEA	Thermal-hydraulic modelling and analysis of a small modular reactor	6
78	<b>M. I. Aziz</b>	Egypt / EAEA	Analysis of Neutronic Performance for SMART Reactor With Uranium Nitride and Thorium Fuel	7
92	<b>J. D. Choi</b>	Republic of Korea / KEPCO E&C	Compact Design for CVCS heat exchangers for SMR	8
110	<b>Z. Dai</b>	China / Xiapu Nuclear Power Corporation, CNNP, CNNC	Development and Multipurpose Applications of Small Modular Sodium-cooled Fast Reactors in Two Component Nuclear System	9
121	<b>D. Setyawan</b>	Indonesia / BAPETEN	Heat Transfer Simulation on HTGR Pebble Bed Using ATHLET Code	10
179	<b>A. Shafique</b>	Pakistan / PNRA	Computational Fluid Dynamics Approach for Optimizing Temperature and Flow Profile	11

			in a Natural Circulation Based Integrated SMR	
201	<b>E. Hourcade</b>	France / Blue Capsule Technology	Unique nuclear heat: Blue Capsule's singular approach to design simplification and integration in small modular reactors	12
210	<b>F. Varaine</b>	France / OTRERA New Energy	The OTRERA Sodium Fast Reactor Project: from preliminary to conceptual design phase	13
319	<b>M.S. Abdelaziz</b>	Egypt / EAEA	Modeling of Proposed Passive Heat Pipe Loops Cooling System	14
321	<b>F. Miftasani</b>	Indonesia / BRIN	Core Geometry and Reflector Optimization of 10 MWt Micro-PeLUit Pebble Bed HTGR	15
332	<b>E. Greaves</b>	Venezuela / Universidad Simón Bolívar	Low Energy Linear Accelerator-Driven Subcritical Molten Salt Reactor to Produce Clean CO <sub>2</sub> -Free Energy with Stirling Cycle	16
336	<b>H. S. Han</b>	Republic of Korea / KAERI	Tube inlet orifice design of a once-through steam generator considering operation strategies	17
343	<b>J. Eriksson</b>	Sweden / Chalmers University of Technology	Novel design features of proposed light-water SMRs — a Swedish perspective	18
423	<b>S. Touati</b>	Algeria / CRNB	Digital Twin Technology based Modeling of Small Modular Reactor for early deployment within power Energy Systems	19
424	<b>T. J. Bhor</b>	France / Assystem	A Digital Solution to Support Site Selection and Resilience of Advance and Small Modular Reactors Installation	20
162	<b>W. Dridi</b>	Tunisia / CNSTN	Neutronic Analysis of Westinghouse Small Modular Reactor (AP300) using OpenMC	21
136	<b>I. Yurina</b>	Russian Federation / Afrikantov OKBM	Status of Activities on the Project of the Land-Based Small Nuclear Power Plant on the Basis of RITM-200N Reactor Plant	22
329	<b>A. Dedul</b>	Russian Federation / JSC AKME-engineering	SVBR-100 Project: Main Features and Current State	23
37	<b>A. Diachenko</b>	Russian Federation / Rosatom Technical Academy	The Rosatom Technical Academy experience in the field of advanced personnel training for NNP with SMR	24

84	<b>A. Martin</b>	France / Framatome	Analysis of the new RCC-MRx methodologies for creep-fatigue damage	25
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## TUESDAY, 22 OCTOBER 2024

**10:15–10:45 POSTER SESSION B.6:**  
**15:30–16:00 International and National Legal Frameworks and SMRs**

Paper No.	Author(s)	Designating Member State/Organization	Title of Paper	Poster no.
180	J. Widyatanto	Germany/ Karlsruhe Institute of Technology	Dealing with Ignorance: Resilience for Nuclear Safety-Security	26

## TUESDAY, 22 OCTOBER 2024

**10:15–10:45 POSTER SESSION B.7:**  
**15:30–16:00 Regulatory Considerations for SMRs**

Paper No.	Author(s)	Designating Member State/Organization	Title of Paper	Poster no.
77	<b>P. Darnowski</b>	Poland / PAA	Safety Analysis of Small Modular Reactors in the context of the Polish regulatory framework	27
418	<b>A. Mathai</b>	Canada / CNSC	New Nuclear Construction Compliance Oversight	28

## TUESDAY, 22 OCTOBER 2024

**10:15–10:45 POSTER SESSION C.8:**  
**15:30–16:00 Demonstrating SMR's Safety Case**

Paper No.	Author(s)	Designating Member State/Organization	Title of Paper	Poster no.
327	<b>P. Min</b>	Romania / CNCAN	On some safety aspects in Small Modular Reactors	29
141	<b>N. Ryzhov</b>	Russian Federation / Nuclear Safety Institute of the Russian Academy of Sciences	Approach to Development and Validation of Code for Safety Analysis of RITM-200 type SMR under LOCA Conditions	30

## TUESDAY, 22 OCTOBER 2024

**10:15–10:45 POSTER SESSION D.17:**  
**15:30–16:00 Cooperation for Harmonization and Standardization**

Paper No.	Author(s)	Designating Member State/Organization	Title of Paper	Poster no.
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266	<b>H. Desai</b>	India / University of Cambridge	Minilaterals for Small Modular Reactors: Cost Effective and Environmentally Sound Energy Transition Towards Global Net Zero	31
338	<b>V. Skliarenko</b>	Italy / Politecnico di Milano	Nuclear business: shifting from supply chain to ecosystem configuration	32
433	<b>E. Vieilletoile</b>	France / EDF	The EUR Association – Revision of the EUR Document and Ongoing Work on SMR Requirements	33
434	<b>F. Taucer</b>	European Commission	Shaping SMR Standardization for Europe's Energy Future through Science	34

## WEDNESDAY, 23 OCTOBER 2024

**10:15–10:45** POSTER SESSION A.2:  
**15:30–16:00** Advanced Fuels, Reprocessing, Waste Management and Decommissioning Aspects for SMRs – Safety, Design and Technology

Paper No.	Author(s)	Designating Member State/Organization	Title of Paper	Poster no.
6	<b>S. Alhassan</b>	Ghana / Nuclear Regulatory Authority	Effect of changing the outer fuel element diameter on thermophysical parameters of RITM-200 reactor unit	1
11	<b>B. Zlobenko</b>	Ukraine / State Institution "Institute of Environmental Geochemistry of NAS of Ukraine"	Waste management of the fuel cycle on the implementation of SMR projects in Ukraine	2
80	<b>B. B. Acar</b>	Türkiye / Hacettepe University	Evaluation of Radioactive Waste Streams and Management Options for Molten Salt Small Modular Reactor	3
134	<b>H. Tohver</b>	Estonia / University of Tartu	Empowering Emerging Nuclear Nations: Wastimate's Open-Source Approach for Small Modular Reactor Radioactive Waste Management	4
178	<b>A. Miśkiewicz</b>	Poland / Institute of Nuclear Chemistry and Technology	Challenges and constraints related to the final stage of the SMR fuel cycle in the light of plans to implement SMR technology in Poland	5
181	<b>A. Dandi</b>	Libya / Libyan Atomic Energy Establishment	Advancing nuclear design: optimizing burnable poison configurations for extended cycle small modular reactors	6



## WEDNESDAY, 23 OCTOBER 2024

**10:15–10:45** POSTER SESSION C.10:  
**15:30–16:00** Safety, Security and Safeguards  
Interfaces related to SMRs

Paper No.	Author(s)	Designating Member State/Organization	Title of Paper	Poster no.
133	<b>S. Grape</b>	Sweden / Uppsala University	Researching nuclear reactors deployed at sea from a 3S perspective	8
217	<b>S. Jeong</b>	Republic of Korea / KINAC	Consideration of a Regulatory Framework for Safeguards in SMRs	9

## WEDNESDAY, 23 OCTOBER 2024

**10:15–10:45** POSTER SESSION C.11:  
**15:30–16:00** Security of SMR: Physical Protection and  
Computer Security

Paper No.	Author(s)	Designating Member State/Organization	Title of Paper	Poster no.
216	<b>A. Evans</b>	United States of America / SNL	Securing small modular reactors in urban environment	10
263	<b>P. Eftekhari</b>	United States of America / PNNL	Developing Regulatory Frameworks for A/SMRs: Security by Design and Other Regulatory Considerations	11

## WEDNESDAY, 23 OCTOBER 2024

**10:15–10:45** POSTER SESSION C.12:  
**15:30–16:00** Safeguards for SMR

Paper No.	Author(s)	Designating Member State/Organization	Title of Paper	Poster no.
100	<b>C. Olaru</b>	Sweden / Uppsala University	Integration of Small Modular Reactors in the Swedish Nuclear Energy System: A Proliferation Resistance Study	12
198	<b>R. Rossa</b>	Belgium / SCK CEN	Systematic proliferation resistance analysis of Small Modular Reactor designs	13

## WEDNESDAY, 23 OCTOBER 2024

**10:15–10:45** POSTER SESSION D.13:  
**15:30–16:00** SMRs in Energy Planning for Climate  
Change Mitigation

Paper No.	Author(s)	Designating Member State/Organization	Title of Paper	Poster no.
2	<b>H. Llanes</b>	Colombia / Universidad Nacional de Colombia	Past, present and future of nuclear energy in Colombia from the deployment of SMRs	14
19	<b>A. Rahimian</b>	Iran / Nuclear Science and Technology Research Institute (NSTRI)	Small Modular Reactors in the Petroleum Industry: A Sustainable Solution for Enhanced Operations	15
29	<b>F. Veselov</b>	Russian Federation / Energy Research Institute of the Russian Academy of Sciences	Efficiency assessment of SMR development as a non-carbon energy source in the Russian electricity and district heat supply systems	16
35	<b>A. Salman</b>	Egypt / EAEA	Harnessing the Potential of Small Modular Reactors for Climate Change Mitigation through Energy-Mix Optimization and Hydrogen Generation	17
51	<b>J. H. Moon</b>	Korea / KAERI	Application of SMART to Achieve Net Zero Emissions	18
70	<b>A. Ibrahim</b>	Nigeria / Nigerian Nuclear Regulatory Authority	The role of SMRs in mitigating climate change and promoting economic growth in Africa:s case study of Nigeria	19
75	<b>A. Dicko</b>	Mali / Malian Radiation Protection Agency	Nuclear power, an opportunity for development in Africa	20
86	<b>A. Carvalho</b>	Brazil / IPEN	Small modular reactors in Brazil: A paradigm shift in energy policy for climate mitigation	21
105	<b>M. Dougdag</b>	Algeria	Feasibility study of a hybridization of small modular reactor with a solar power plant using molten-salt heat storage in Algerian south	22
128	<b>L. Guimarães (TBC)</b>	Brazil / AMAZUL / ABDAN	The Role of Small Modular Reactors in Enhancing Global Energy Security: A Comparative Analysis of Deployment Strategies in Diverse Energy Markets	23
138	<b>T. Z. Malatim</b>	Libya / Libyan Atomic Energy Establishment	Comparative Assessment of Small Modular Reactors versus Large Nuclear Power Plants for	24

			Future Electricity Generation in Libya	
296	<b>J. Kang</b>	Korea / KHNP	Towards a Sustainable Future: SMR Smart Net Zero City	25
394	<b>G. Caprioli</b>	Italy / Edison	Italian Scenario: reintroduction of new nuclear and benefits for the system	26
108	<b>F. Panday</b>	South Africa / CSIR	Repurposing of coal power plants with nuclear methanol hybrid energy system. A South Africa case study	27

## WEDNESDAY, 23 OCTOBER 2024

**10:15–10:45**    **POSTER SESSION D.15:**  
**15:30–16:00**    **Financing, Cost & Economic Appraisals**  
**and Contracting Approaches for SMR**  
**Projects**

Paper No.	Author(s)	Designating Member State/Organization	Title of Paper	Poster no.
48	<b>V. Usanov</b>	Russian Federation / Leypunsky Institute for Physics and Power Engineering	Some Technical and Institutional Issues to Accelerate Deployment of SMRs	28
342	<b>D. Musyoka</b>	Kenya / NuPEA	Opportunities in development banks' framework in the acceptability of advanced nuclear reactors in Kenya	29
320	<b>D.L. Dua</b>	United States of America / Hunton Andrews Kurth LLP	Governmental Incentives for SMR Deployment	30

## THURSDAY, 24 OCTOBER 2024

**10:15–10:45**    **POSTER SESSION A.3:**  
**15:30–16:00**    **Engineering, Codes & Standards, Supply**  
**Chain, Operation and Maintenance of**  
**SMRs**

Paper No.	Author(s)	Designating Member State/Organization	Title of Paper	Poster no.
159	<b>R. Tscherning</b>	Canada / University of Calgary	Advancing an Increasingly Critical Canada-USA HALEU Supply Chain for SMRs and Advanced Reactors	1
165	<b>S. Lee</b>	Republic of Korea / Korea Hydro and Nuclear Power	Development Strategy of HMI and Digital I&C System's Emulator for Korean Innovative SMR Plant	2

Paper No.	Author(s)	Designating Member State/Organization	Title of Paper	Poster no.
245	<b>J. Bourdon</b>	France / Assystem	Tailored MBSE Approach for SMR Gen IV Architecting	3
276	<b>H. Kim</b>	Republic of Korea / FAINDUS Inc.	Nonlinear ultrasonic parameters to laser weld quality for Small Modular Reactor	4
281	<b>S. Zhu</b>	China / Nuclear Power Operations Research Institute	The Status of Supply Chain for Small Modular Reactors deployment in China	5
397	<b>A. Hosid</b>	Argentina / CNEA	Interactive graphic simulator of the CAREM-25 reactor	6

## THURSDAY, 24 OCTOBER 2024

**10:15–10:45**

**POSTER SESSION A.5:**

**15:30–16:00**

**Non-Electric Applications for SMR**

Paper No.	Author(s)	Designating Member State/Organization	Title of Paper	Poster no.
18	<b>J. Emblemståg</b>	Norway / Norges Teknisk-Naturvitenskapelige Universitet	Why SMRs are crucial for hard-to-abate sectors such as shipping and what to do about it	7
56	<b>J. Lee</b>	Republic of Korea / KAERI	Non-electric Application of Nuclear Energy in Korea	8
168	<b>J.-S. Moon</b>	Republic of Korea / KHNP	Performance Analysis of SMR Plant with Steam Heating for Multi-purpose Applications	9
219	<b>W. Zhang</b>	China / Tsinghua University	NHR200-II Reactor: Characteristics, Development, and Applications in Non-Electric Energy Systems	10
243	<b>C. Terrier</b>	France / NUWARD	NUWARD SMR cogeneration services	11
277	<b>G. Masotti</b>	Italy / Politecnico di Milano	Small Modular Reactors and cogeneration: impact of steam extraction on power conversion performance	12
341	<b>G. Masotti</b>	Italy / Politecnico di Milano	Dynamic modelling of a nuclear hybrid energy system with hydrogen production via high temperature steam electrolysis	13
287	<b>D. Briggs</b>	France / NAAREA	XAMR® a new energy solution for decarbonization	14
379	<b>C. Dulac</b>	France / Calogena	The Relevance of Nuclear Energy for District Heating	15

428	<b>A. Shibalkina</b>	Russian Federation / Afrikantov OKBM JSC	The nuclear power plant with high temperature gas cooled reactor and chemical process equipment as an option for solving the problem of large scale production of low carbon hydrogen.	16
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## THURSDAY, 24 OCTOBER 2024

10:15–  
10:45  
15:30–  
16:00

**POSTER SESSION D.14:  
Nuclear Infrastructure and Enabling Environment  
for SMRs**

Paper No.	Author(s)	Designating Member State/Organization	Title of Paper	Poster no.
65	<b>G. C. Borges Leal</b>	Brazil / Eletronuclear S.A	Small modular reactors and new technologies in the generation capacity expansion: The Brazilian perspective	17
73	<b>A. S. Aliyu</b>	Nigeria / Centre for Renewable Energy and Sustainability Transitions	Assessing the Role of Small Modular Reactors (SMRs) in Achieving Sustainable Industrial Growth in Africa: Opportunities, Challenges, and Policy Implications	18
98	<b>M. Ozerina</b>	IAEA	From Vision to Reality: Building Capacity and Bridging Gaps in SMR Technology Adoption	19
102	<b>C. T. Tran</b>	Viet Nam / VINATOM	Sustainability assessment of infrastructure for small modular reactor deployment in Vietnam using INPRO methodology	20
117	<b>K. S. Hamdan</b>	Jordan / JAEC	Jordan's SMR RTA Experience	21
145	<b>A. Linné</b>	Sweden / Uppsala University	Challenges of SMR deployment in a Swedish setting	22
241	<b>O. Aas-Hansen</b>	Norway / Norsk Kjernekraft AS	Norsk Kjernekraft and the advancement of nuclear in Norway	23

312	<b>T. Zivko</b>	Slovenia / Slovenian Nuclear Safety Administration	Possibilities for deployment of SMRs in Slovenia	24
335	<b>C. Johari</b>	IAEA	Analysis Support for Enhanced Nuclear Energy Sustainability: an INPRO Service to Member States	25
348	<b>M. U. Onwuhaka</b>	Nigeria	The Integration of Small Modular Reactors into a National Nuclear Power Programme - A SWOT Analysis of Nigeria INIR Mission	26

## THURSDAY, 24 OCTOBER 2024

**10:15–10:45** POSTER SESSION D.16:  
**15:30–16:00** Public and Stakeholder Engagements in SMR Development and Deployment

Paper No.	Author(s)	Designating Member State/Organization	Title of Paper	Poster no.
87	<b>G. Pavel</b>	ENEN	ENEN contribution to the development of SMR human resource	27
236	<b>A. Dobrov</b>	Russian Federation / Nizhny Novgorod State Technical University	Education through science: NNSTU master's program «Nuclear power plants with SMR»	28
313	<b>B. Kocsis</b>	Hungary / MVM Paks NPP Ltd	Systematic Literature Review on the Risks of SMRs	29
389	<b>N. Das</b>	IAEA	Initiatives in INPRO for SMRs	30

## List of Acronyms

<b>Acronym</b>	<b>Organization Name</b>	<b>Country</b>
ANL	Argonne National Laboratory	United States of America
ASN	Nuclear Safety Authority	France
BAPETEN	Nuclear Energy Regulatory Agency	Indonesia
BARC	Bhabha Atomic Research Centre	India
BASE	Federal Office for the Safety of Nuclear Waste Management	Germany
BRIN	National Research and Innovation Agency	Indonesia
CEA	Alternative Energies and Atomic Energy Commission	France
CNEA	National Atomic Energy Commission	Argentina
CNEN	National Nuclear Energy Commission	Brazil
CNL	Canadian Nuclear Laboratories	Canada
CNNC	China National Nuclear Corporation	China
CNNP	China National Nuclear Power Co Ltd	China
CNSC	Canadian Nuclear Safety Commission	Canada
CNSTN	The National Center for Nuclear Sciences and Technologies	Tunisia
CRNB	Nuclear Research Centre of Birine	Algeria
CSIR	Council for Scientific and Industrial Research	South Africa
DAE	Department of Atomic Energy	India
DOE	U.S. Department of Energy	United States of America
DOE/NNSA	U.S. Department of Energy's National Nuclear Security Administration	
EAEA	Egyptian Atomic Energy Authority	Egypt
ENEA	Italian National Agency for New Technologies, Energy and Sustainable Economic Development	Italy
ENEN	European Nuclear Education Network	
ENSI	Swiss Federal Nuclear Safety Inspectorate	Switzerland
GAEC	Ghana Atomic Energy Commission	Ghana
GRS	Gesellschaft für Anlagen- und Reaktorsicherheit	Germany
INL	Idaho National Laboratory	United States of America

IPA	Environmental Research Institute	Brazil
IRSN	Institute for Radiation Protection and Nuclear Safety	France
ITNA	Institut de Technologie Nucléaire Appliquée	Senegal
JAEA	Japan Atomic Energy Agency	Japan
JAEC	Jordan Atomic Energy Commission	Jordan
KACST	King Abdulaziz City for Science and Technology	Saudi Arabia
KAERI	Korea Atomic Energy Research Institute	Korea
KNRA	Kenya Nuclear Regulatory Authority	Kenya
KHNP	Korea Hydro & Nuclear Power	Korea
KINAC	Korea Institute of Nuclear Nonproliferation and Control	Korea
KINS	Korea Institute of Nuclear Safety	Korea
KIT	Karlsruhe Institute of Technology	Germany
LLNL	Lawrence Livermore National Laboratory	United States of America
NAAREA	Nuclear Abundant Affordable Resourceful Energy for All	France
NCBJ	National Centre for Nuclear Research	Poland
NDK	Nuclear Regulatory Authority	Türkiye
NNL	National Nuclear Laboratory	United Kingdom
NNR	National Nuclear Regulator	South Africa
NNRA	Nigerian Nuclear Regulatory Authority	Nigeria
NRC	U.S. Nuclear Regulatory Commission	United States of America
NRIC	National Reactor Innovation Center	United States of America
NRPA	National Radiation Protection Authority	Namibia
NuPEA	Nuclear Power and Energy Agency	Kenya
OECD (NEA)	Organisation for Economic Co-operation and Development- Nuclear energy Agency	
ORNL	Oak Ridge National Laboratory	United States of America
OSGE	ORLEN Synthos Green Energy	Poland
PAEC	Pakistan Atomic Energy Commission	Pakistan
PIEAS	Pakistan Institute of Engineering and Applied Sciences	Pakistan
PNNL	Pacific Northwest National Laboratory	United States of America
PNRA	Pakistan Nuclear Regulatory Authority	Pakistan



PNRI	Philippine Nuclear Research Institute	Philippines
RATEN ICN	Regia Autonoma Tehnologii pentru Energia Nucleara	Romania
SCK CEN	Belgian Nuclear Research Centre	Belgium
SEC NRS	Scientific and Engineering Centre on Nuclear and Radiation Safety	Russian Federation
SNL	Sandia National Laboratory	United States
SSM	Radiation Safety Authority	Sweden
SSTC NRS	State Scientific and Technical Center for Nuclear and Radiation Safety	Ukraine
STUK	Radiation and Nuclear Safety Authority	Finland
TENMAK	Turkish Energy, Nuclear and Mineral Research Agency	Türkiye
UJD SR	Nuclear Regulatory Authority	Slovak Republic
VCDNP	Vienna Center for Disarmament and Non-Proliferation	
WANO	World Association of Nuclear Operators	
WNA	World Nuclear Association	
WNTI	World Nuclear Transport Institute	

## IAEA PUBLICATIONS RELATED TO THE SUBJECT OF THE EVENT

<u>Title</u>	<u>Series</u>	<u>Year</u>
<a href="#">Application of the Principle of Defence in Depth in Nuclear Safety to Small Modular Reactors   IAEA</a>	INSAG-28	2024
<a href="#">Status of Molten Salt Reactor Technology   IAEA</a>	Technical Reports Series No. 489	2023
<a href="#">Considerations for the Back End of the Fuel Cycle of Small Modular Reactors   IAEA</a>	IAEA-TECDOC-2040	2023
<a href="#">Suitability Evaluation of Commercial Grade Products for Use in Nuclear Power Plant Safety Systems   IAEA</a>	IAEA-TECDOC-2034	2023
<a href="#">Applicability of IAEA Safety Standards to Non-Water Cooled Reactors and Small Modular Reactors   IAEA</a>	Safety Reports Series No. 123	2023
<a href="#">Advancing the State of the Practice in Uncertainty and Sensitivity Methodologies for Severe Accident Analysis in Water Cooled Reactors of PWR and SMR Types   IAEA</a>	IAEA-TECDOC-2031	2023
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<a href="#">Nuclear Reactor Technology Assessment for Near Term Deployment   IAEA</a>	IAEA Nuclear Energy Series No. NR-T-1.10 (Rev. 1)	2022
<a href="#">Lessons Learned in Regulating Small Modular Reactors   IAEA</a>	IAEA-TECDOC-2003	2022
<a href="#">Human Resource Management for New Nuclear Power Programmes   IAEA</a>	IAEA Nuclear Energy Series No. NG-T-3.10 (Rev. 1)	2022
<a href="#">Benefits and Challenges of Small Modular Fast Reactors   IAEA</a>	IAEA-TECDOC-1972	2021
<a href="#">Technology Roadmap for Small Modular Reactor Deployment   IAEA</a>	IAEA Nuclear Energy Series No. NR-T-1.18	2021
<a href="#">Integrated Nuclear Infrastructure Review (INIR): Ten Years of Lessons Learned   IAEA</a>	IAEA-TECDOC-1947	2021
<a href="#">Applicability of Design Safety Requirements to Small Modular Reactor Technologies Intended for Near Term Deployment   IAEA</a>	IAEA-TECDOC-1936	2020

<a href="#">20-02619E_ALWCR_ARIS_Booklet_WEB.pdf (iaea.org)</a>		2020
<a href="#">Light Water Reactor Fuel Enrichment beyond the Five Per Cent Limit: Perspectives and Challenges   IAEA</a>	IAEA-TECDOC-1918	2020
<a href="#">Considerations for Environmental Impact Assessment for Small Modular Reactors   IAEA</a>	IAEA-TECDOC-1915	2020
<a href="#">International Safeguards in the Design of Reprocessing Plants   IAEA</a>	IAEA Nuclear Energy Series No. NF-T-3.2	2019
<a href="#">Nuclear–Renewable Hybrid Energy Systems for Decarbonized Energy Production and Cogeneration   IAEA</a>	IAEA-TECDOC-1885	2019
<a href="#">Waste from Innovative Types of Reactors and Fuel Cycles   IAEA</a>	IAEA Nuclear Energy Series No. NW-T-1.7	2019
<a href="#">Passive Safety Systems in Water Cooled Reactors: An Overview and Demonstration with Basic Principle Simulators   IAEA</a>	Training Course Series No. 69	2019
<a href="#">Nuclear Fuel Cycle Simulation System: Improvements and Applications   IAEA</a>	IAEA-TECDOC-1864	2019
<a href="#">Deployment Indicators for Small Modular Reactors   IAEA</a>	TECDOC-1854	2018
<a href="#">Instrumentation and Control Systems for Advanced Small Modular Reactors</a>	IAEA Nuclear Energy Series No. NP-T-3.19	2017
<a href="#">Progress in Methodologies for the Assessment of Passive Safety System Reliability in Advanced Reactors</a>	IAEA TECDOC 1752	2014
<a href="#">Options to Enhance Proliferation Resistance of Innovative Small and Medium Sized Reactors</a>	IAEA Nuclear Energy Series No. NP-T.1.11	2014

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**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, Chengdu, China**

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**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**

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**8 – 12 December 2025, Vienna, Austria**

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