Time	Monday, Nov 28	Tuesday, Nov 29		29	Wed	inesday, No	ov 30	Thursday, Dec 1			Friday, Dec	2	Time	
09:00	Registration and badging	Poster Session			Side Event: Recent Operations Poster Session		Poster Session		09:00					
09:15	(VIC Gate-1)				& Maintenance Findings in					09:15				
09:30					East Asian Countries (CR-2)							09:30		
09:45														09:45
10:00											Coffee			10:00
10:15											C-02			10:15
10:30	Opening Session	Coffee			Coffee			Coffee			Plenary K	Ceynote		10:30
10:45	(BR-C)	C-02			C-02			C-02			(CR-7)			10:45
11:00		Plenary K	eynote		Plenary K	eynote		Plenary K	Ceynote		TS 3-4	TS 1-4		11:00
11:15		(BR-C)		_	(BR-C)			(BR-C)			CR-7	CR-2		11:15
11:30		TS 1-1	TS 3-1	TS 5-1	TS 6-2	TS 3-3	TS 1-3	TS 5-2	TS 4-2		(4)	(4)		11:30
11:45		BR-C	CR-2	C0440	BR-C	CR-2	C0440	BR-C	CR-2		(4)	(4)		11:45
12:00	LUNCH/BREAK	<b>/</b> E\	(5)	(2)	<b>(</b> E)	<b>(</b> E)	(4)	(5)	(5)		LUNCH/E	BREAK		12:00
12:15		(5)	(5)	(3)	(5)	(5)	(4)	(5)	(5)					12:15
12:30								_						12:30
12:45		LUNCH/B	REAK		LUNCH/B	REAK		LUNCH/B	BREAK					12:45
13:00												Panel 4 (CR-	•	13:00
13:15	DI V											related cha	lienges	13:15
13:30	Plenary Keynotes (BR-C)		I 4 /DD	c)		I 2 /DD	C)	D===1.2 (DD C)		will be managed in a competitive way through		13:30 13:45		
13:45 14:00	(BR-C)		anel 1 (BR-	•	Panel 2 (BR-C)		Panel 3 (BR-C) Nuclear contribution including		innovation		14:00			
14:00			y & non-electrical IAEA Support to Newcomers Nuclear contribution including ons of existing nuclear (including E&T) to implement LTO/LR projects to reach			Report and Closing Session (CR-		14:00						
14:15	Plenary Tech Session	fleet	JIIS OI EXISTII	ig Hucicai	PLiM, ageing Management,		carbon neutrality and/or		7)		14:15			
14:45	BR-C	nect			etc.	ing manage	ziriciri,	energy security targets		')			14:30	
15:00	BK C	TS 3-2	TS 1-2	TS 6-1	TS 4-1	TS 2-1		TS 2-2	TS 6-3					15:00
15:15	(6)	BR-C	CR-2	C0440	BR-C	CR-2		BR-C	CR-2					15:15
15:30	•	Sit C	Sit Z	30440	Jil C	51, 2		Sit C	SIV Z					15:30
15:45		(4)	(4)	(3)	(4)	(4)		(4)	(4)					15:45
16:00	DG Remarks	Coffee			Coffee			Coffee						16:00
16:15	Reception	C-02		C-02			C-02						16:15	
16:30	C-02	Poster Session		Side Event: Women In Nuclear: Side Event: In		nt: Innovativ	e Nuclear	1			16:30			
16:45					Spotlighting Nuclear Power Data						16:45			
17:00				Changem	Changemakers (CR-2)						17:00			
17:15				(CR-2)							17:15			
17:30			END			END END			1			17:30		

# Nuclear Power Plant Life Management

### **Fifth International Conference**

28 November-02 December 2022

# **PROGRAMME**

(last updated 25-Nov-2022 16:00)

Organized by the International Atomic Energy Agency (IAEA)

IAEA Headquarters Vienna, Austria

#### Conference co-Presidents

HE T. Hikihara Japan/Ministry of Foreign Affairs

C. Le-Maitre France/EDF

### **Programme Committee:**

ARN, Argentina
Kozloduy NPP, Bulgaria
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AERB, India
METI, Japan
University of Tokyo, Japan
KEPCO, Republic of Korea
EU JRC, Netherlands
Vattenfall, Sweden
SUJB, Czech Republic
CSN, Spain
Xcel Energy, USA

#### **IAEA Secretariat:**

Scientific Secretaries: E. Bradley, NENP

M. Marchena, NSNI

Event Organizer: T. Danaher, MTCD Administrative Support: L. Makil; T.L. Loi

#### Location of the Event:

International Atomic Energy Agency Vienna International Centre (VIC)

Building M, BRB/M1

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.

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### **TIMETABLE**

### Monday, 28 November 2022

Time	Session Title / Break	Venue
08:00-16:00	Registration and badging	VIC Gate-1
10:30–12:00	Opening Session	Board Room BR-C
12:00–13:30	Lunch Break	
13:30–14:30	Plenary Keynotes  Approaches to Plant Life Management, A. des Cloizeaux, IAEA  Economics of PLiM, B. Zronek, WNA/Czech Republic	BR-C
14:30–16:00	Plenary Technical Session	BR-C
16:00-16:15	Director General's Opening Remarks	BR-C
16:15–18:00	Reception	C-02

### Tuesday, 29 November 2022

Time	Session No.	Session Title / Break	Venue
09:00–10:30		Poster Session	C-02
10:30-11:00		Coffee Break	C-02
11:00–11:30		Plenary Keynote: Ageing Management & Preparation for LTO, B. Linde, Sweden	BR-C
11:30–12:45	1-1	Approaches to Plant Life Management	BR-C
11:30–12:45	3-1	Ageing Management and Preparation of Long- Term Operation	CR-2
11:30–12:45	5-1	Stakeholder Engagement, Human Factors and Managerial Aspects	C0440
12:45–13:45		Lunch Break	
13:45–15:00		Panel 1: Flexibility and non-electrical applications of the existing nuclear fleet	BR-C
15:00–16:00	3-2	Ageing Management and Preparation of Long- Term Operation	BR-C
15:00–16:00	1-2	Approaches to Plant Life Management	CR-2
15:00–16:00	6-1	Configuration and Modification Management for Safety Enhancement and improved reliability	C0440
16:00–16:30		Coffee Break	C-02
16:30–17:30	•	Poster Session	C-02

Time	Session No.	Session Title / Break	Venue
09:00-10:30		Side Event: Recent findings from Operating & Maintenance Experiences: Information Sharing Among Mechanical Engineers from East Asian Countries	CR-2
10:30-11:00		Coffee Break	C-02
11:00–11:30		Plenary Keynote: Configuration & Modification Management for Safety Enhancement & Improved Reliability, C. Zhao, China	BR-C
11:30–12:45	6-2	Regulatory Approaches to Ageing Management and Long-Term Operation	BR-C
11:30–12:45	3-3	Ageing Management and Preparation of Long- Term Operation	CR-2
11:30–12:45	1-3	Approaches to Plant Life Management	C0440
12:45–13:45		Lunch Break	
13:45–15:00		Panel 2: IAEA Support to Newcomers (including Education & Training) to implement PLiM, ageing Management, etc.	BR-C
15:00–16:00	4-1	Configuration and Modification Management for Safety Enhancement and improved reliability	BR-C
15:00–16:00	2-1	Economics of Plant Life Management	CR-2
16:00–16:30		Coffee Break	C-02
16:30–17:30		Side Event: Women In Nuclear: Spotlighting Nuclear Changemakers	C-02

### Thursday, 1 December 2022

Time	Session No.	Session Title / Break	Venue
09:30–10:30		Poster Session	C-02
10:30-11:00		Coffee Break	C-02
11:00–11:30		Plenary Keynote: Manpower management and public outreach for LTO during transient period, C. Jang, Korea	BR-C
11:30–12:45	5-2	Stakeholder Engagement, Human Factors and Managerial Aspects	BR-C
11:30–12:45	4-2	Configuration and Modification Management for Safety Enhancement and improved reliability	CR-2
12:45–13:45		Lunch Break	_
13:45–15:00		Panel 3: Ensuring nuclear power's contribution to reach carbon neutrality and/or energy security targets: the relevance of LTO/LR programmes and projects	BR-C
15:00–16:00	2-2	Economics of Plant Life Management	BR-C

Time	Session No.	Session Title / Break	Venue
15:00–16:00	6-3	Regulatory Approaches to Ageing Management and Long-Term Operation	CR-2
16:00–16:30		Coffee Break	C-02
16:30–17:30		Side Event: Innovative Nuclear Power Data	CR-2

## Friday, 2 December 2022

Time	Session No.	Session Title / Break	Venue
09:30–10:00		Poster Session	C-02
10:00-10:30		Coffee Break	C-02
10:30–11:00		Plenary Keynote: Regulatory Approaches to Ageing Management and Long-Term Operation, M. Turner, Slovakia	CR-7
11:00–12:00	3-4	Ageing Management and Preparation of Long- Term Operation	CR-7
11:00–12:00	1-4	Approaches to Plant Life Management	CR-2
12:00–13:00		Lunch Break	
13:00–14:15		Panel 4: How LTO related challenges will be managed in a competitive way through innovation	CR-7
14:15–15:00		Report and Closing Session	CR-7

### Monday, 28 November 2022

08:00-16:00 Registration VIC Gate-1

### Monday, 28 November 2022

#### 10:30-12:30 OPENING SESSION

#### Plenary Room (BR-C)

Time	Name	Designating Member State/Organization	Title
10:30–10:45	M. Chudakov	Deputy Director General, Head of Department of Nuclear Energy, IAEA	Opening Address
10:45–11:00	C. Le-Maitre	France/EDF	Keynote Address from Conference co- President
11:00–11:15	HE T. Hikihara	Japan/Ministry of Foreign Affairs	Keynote Address from Conference co- President
11:15–11:30	N. Sekimura	Japan/Tokyo University	Keynote Address
11:30–11:45	E. Bradley	IAEA	Organizational matters and an introduction to IAEA contributions to Plant Life Management and Long-Term Operation
11:45–12:00	M. Marchena	IAEA	IAEA contributions to Plant Life Management and Long-Term Operation
12:00–13:30	Lunch Break		

#### Monday, 28 November 2022

#### 13:30-14:30 PLENARY KEYNOTES

#### Plenary Room (BR-C)

Time	Name	Designating Member State/Organization	Title
13:30–14:00	A. des Cloizeaux	IAEA	Keynote Address: Approaches to PLiM
14:00–14:30	B. Zronek	WNA/CEZ	Keynote Address: Economics of PLiM

#### **Presentations**

#### Monday, 28 November 2022

14:30-16:00 PLENARY TECHNICAL SESSION BR-C

Chair: Garry Young Rapporteur: John Moore

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
46	S. Jayet-Gendrot	France	EDF Experience on LTO for the 900 MWe PWR Fleet
56	A. Vaya Soler	OECD-NEA	Long-Term Operation of Nuclear Power Plants and Decarbonisation Strategies
55	M. del Prado Ordiales Rey	Spain	Implementation of ageing management programmes and the quantitative effectiveness performance indicator
23	M. Noguchi	Japan	Latest Status of I&C Modernization in Japanese PWR Plants
116	L. Berthelot	IAEA	Stakeholder Engagement in the Long-Term Operation of NPPs: International Trends and IAEA Support
66	B. Smith	USA	From 40 to 60 to 80 Years – What is Next for License Renewal in the USA?

#### Monday, 28 November 2022

#### 16:00-16:15 REMARKS FROM THE DIRECTOR GENERAL P

Plenary Room (BR-C)

Time	Name	Designating Member State/Organization	Title	
16:00-16:15	R. M. Grossi	Director General, IAEA	Opening Address	
16:15-18:00	Reception			C-02

#### Tuesday, 29 November 2022

10:30-11:00	Coffee Break	C-02
10.50-11.00	Conce Dreak	0-02

#### Tuesday, 29 November 2022

11:00-11:30 PLENARY KEYNOTE

Plenary Room (BR-C)

Time	Name	Designating Member State/Organization	Title
11:00–11:30	B. Linde	Sweden/Vattenfall	Ageing Management & Preparation for LTO

#### **Presentations**

### Tuesday, 29 November 2022

11:30-12:45 SESSION 1-1 APPROACHES TO PLANT BR-C

LIFE MANAGEMENT

Chair: Abdou Al Mazouzi Rapporteur: Oliver Martin

Paper No.	Presenting Author	Designating Member State/Organization	Title of Paper
42	S. Yasuraoka	Japan	Approaches for the Safe Long-Term Operation of LWRs in Japan
30	G. Young	EPRI	EPRI's Strategies for Ageing Management and Preparation of Long-Term Operation
6	V. Placek	Czech Republic	Outputs of the Cable ageing management program in Czech Republic
85	Y. Bao	China	Ageing management of CANDU-6 reactor NPP in China
90	R. Krivanek	Netherlands	Current Challenges of Nuclear Power Plants Connected with Safe Long Term Operation
12:45-13:4	45 Lunch Break		

#### Tuesday, 29 November 2022

11:30–12:45 SESSION 3-1 AGEING MANAGEMENT CR-2

AND PREPARATION OF LONG-TERM

**OPERATION** 

Chair: Georgi Ignatov Rapporteur: Jinseok Park

Paper No.	Presenting Author	Designating Member State/Organization	Title of Paper
57	M. Klemenc	Czech Republic	Implementation of Thermal fatigue monitoring program in Czech NPPs
80	V. Jain	India	Design and Development of Eddy Current Test based Vessel Inspection System for TAPS-1&2 RPV Weld Joints
17	S. Naito	Japan	Anomaly detection Al technology, two-stage autoencoder
62	U. Wildner	Germany	Experiences using a software product for AMR, IGALL implementation and AMP validation
135	N. Ngoy Kubelwa	IAEA	Development Considerations and Life Cycle Management Approaches for Nuclear Facility Instrumentation and Control Systems
12:45-13	:45 Lunch Break		

### Tuesday, 29 November 2022

11:30-12:45

SESSION 5-1 STAKEHOLDER ENGAGEMENT, HUMAN FACTORS AND MANAGERIAL ASPECTS C0440

Chair: Kenta Murakami

Rapporteur: Christina Van

Drunen

Paper No.	Presenting Author	Designating Member State/Organization	Title of Paper
96	R. Harianto	Indonesia	Identification of Nuclear Safety Information System to Preserve Knowledge in Aging Management for Nuclear Power Plant SSC's Important to Safety
38	T. Itoi	Japan	Human Capacity Building towards Knowledge Base Development for Nuclear Safety Regulation facilitating Risk Management
53	B. Kocsis	Hungary	Knowledge transfer in the scope of maintain the RPS in Paks
12:45-13	3:45 Lunch Break		

### Tuesday, 29 November 2022

13:45-15:00

PANEL 1 FLEXIBILITY AND NON-ELECTRICAL APPLICATIONS OF THE EXISTING NUCLEAR FLEET BR-C

#### Facilitator: Nikhil Kumar (USA/Intertek)

Panel Members	Designating Member State/Organization
Y. Dou	China/SNERDI
S. Richard	France/EDF
C. Tomlin	EPRI
U. Otgonbaatar	USA/Constellation

#### Tuesday, 29 November 2022

15:00–16:00 SESSION 3-2 AGEING MANAGEMENT AND PREPARATION OF LONG-TERM

**OPERATION** 

Chair: Adriana Politi Rapporteur: Georgi Ignatov

BR-C

Paper No.	Presenting Author	Designating Member State/Organization	Title of Paper
77	K. Chitose	OECD-NEA	NEA Working Groups Activities in Ageing Management and Long-Term Operation
65	O. Martin	EC-JRC	Activities and future Trends of the ENIQ Network
132	A. Yu	IAEA	The International Network of Life Management of Nuclear Power Plants
101	C. Mocanu	Netherlands	NRG experience in support of NPPs' ageing management and LTO

#### Tuesday, 29 November 2022

15:00-16:00 SESSION 1-2 APPROACHES TO PLANT CR-2

**LIFE MANAGEMENT** 

Chair: Nathan Paterson Rapporteur: Abdou Al

Mazouzi

Paper No.	Presenting Author	Designating Member State/Organization	Title of Paper
126	J. Augusto do Amaral	Brazil	Strategy for Licensing Angra 1 Plant Life Extension Program (LTO)
14	M. Kikuchi	Japan	Evaluation on Operating Period Extension of Tokai- II Power Station
87	D. Erak	Russia	Study of the decommissioned RPV metal in support of the operating RPVs lifetime extension
86	D. Synak	Slovak Republic	A programme for Long term operation at Slovak NPPs

### Tuesday, 29 November 2022

15:00-16:00

SESSION 6-1 REGULATORY APPROACHES TO AGEING MANAGEMENT AND LONG-TERM

**OPERATION** 

**Chair: Carmen Munoz** 

C0440

Rapporteur: Diptojyoti Bhattacharya

Paper No.	Presenting Author	Designating Member State/Organization	Title of Paper
51	C. Moyer	USA	Regulatory Research on the Aging Management of Structures, Systems and Components in Nuclear Power Plants Supporting License Renewal
121	E. Stencel S. Miller	Canada	CSA N290.20:21, Aging management requirements for nuclear power plants
128	D. Murčehajić	Slovenia	Virtual user interface for Master Equipment Component database interaction

### Tuesday, 29 November 2022

16:00-17:30	Posters & Exhibitors	C-02
16:00-16:30	Coffee Break	C-02

09:00–10:30 SIDE EVENT: RECENT OPERATIONS & CR-2
MAINTENANCE FINDINGS IN EAST ASIAN
COUNTRIES

This side event aims to share recent findings from operation and maintenance experiences in East Asian countries and enhance the networking among mechanical engineers working on ageing management. We will provide a detailed introduction to recent topics on flow-accelerated corrosion and stress corrosion cracking in PWRs and allow time for questions and discussion of these topics. Since this event will be held during early evening in East Asia, interactive discussions between inperson and remote participants from these regions is encouraged.

### Wednesday, 30 November 2022

10.30-11.00	Coffee Break	C-02
10.30-11.00	Collee Dieak	C-02

#### Wednesday, 30 November 2022

11:00–11:30 PLENARY KEYNOTE Plenary Room (BR-C)

Time	Name	Designating Member State/Organization	Title
11:00–11:30	C. Zhao	China/CNPP	Configuration & Modification Management for Safety Enhancement & Improved Reliability

#### Wednesday, 30 November 2022

11:30-12:45 SESSION 6-2 REGULATORY

APPROACHES TO AGEING MANAGEMENT AND LONG-TERM OPERATION

Chair: Jolana Rydlova Rapporteur: Carmen Munoz

BR-C

Paper No.	Presenting Author	Designating Member State/Organization	Title of Paper	
123	C. Loreti	Canada	Regulatory Approach Taken in the Refurbishment of the Darlington Nuclear Generating Station-A Canadian Perspective on Life Extension Projects	
127	M. Marchena	IAEA	SALTO peer review service	
76	K. Nick	OECD-NEA	Legal Frameworks for Long-Term Operation of Nuclear Power Reactors	
39	R. Solanki	India	Regulatory practices on Plant life Management and strategies for renewal of licence for Long term Operation of operating NPPs in India	
82	N. Tsukabe	Japan	Regulatory review of extension of operational period of NPPs in Japan	
12:45-13:45 Lunch Break				

11:30–12:45 SESSION 3-3 AGEING MANAGEMENT

AND PREPARATION OF LONG-TERM

OPERATION

Chair: Jinseok Park Rapporteur: Adriana Politi

CR-2

Presenting Author	Designating Member State/Organization	Title of Paper
R. Bonzom	France	Presentation of the Vessel Internals Project 2 within the Materials Ageing Institute (MAI) - Focus on the effect of baffle assembly design on BFB IASCC susceptibility and on the quantification of radiation-induced segregation
A. Jenssen	Sweden	SMILE Project – Research on Aged Materials Harvested from Decommissioned Swedish Boiling and Pressurized Water Reactors
K. Nakashima	Japan	Irradiation Embrittlement Management of Nuclear Reactor Pressure Vessels in Japan
Y. Li	Japan	JAEA's Research on the Structural Integrity Assessment of Reactor Pressure Vessels for Safe Long-term Operation
Y. Miura	Japan	CRIEPI research activities on material aging using decommissioned reactor materials
	R. Bonzom  A. Jenssen  K. Nakashima  Y. Li	R. Bonzom France  A. Jenssen Sweden  K. Nakashima Japan  Y. Li Japan

### Wednesday, 30 November 2022

11:30–12:45 SESSION 1-3 APPROACHES TO PLANT C0440

LIFE MANAGEMENT

Chair: Annie Yu Rapporteur: Abdou Al

Mazouzi

Paper No.	Presenting Author	Designating Member State/Organization	Title of Paper
60	S. Percossi Bossero	Argentina	Study of the behaviour and performance against thermal aging, radiation aging and Design Basis Accident (DBA) of epoxy coatings for use in specific environments of CAREM25
16	I. Maruyama	Japan	Concrete research for long-term operation of nuclear power plants in Japan

130	K. Mansoor	Pakistan	PNRA Regulatory Approach to Ageing Management and LTO – The Way Forward
70	V. Pistora	Czech Republic	State-of-the-art reviews of PTS related topics performed within APAL project
12:45-1	12:45-13:45		

13:45–15:00 PANEL 2 IAEA SUPPORT TO

NEWCOMERS (INCLUDING E&T) TO IMPLEMENT PLIM, AGEING MANAGEMENT, ETC. BR-C

Facilitator: Erik English (USA/Bulletin of the Atomic Scientists)

Panel Members	Designating Member State/Organization
P. Pedernera Argentina/Nucleoeléctricia Argentina S.A.	
F. Meng	China/SNERDI
M. Öztaş	Türkiye/Nuclear Regulatory Authority
G. Petofi IAEA/Senior Nuclear Safety Officer	

### Wednesday, 30 November 2022

15:00–16:00 SESSION 4-1 CONFIGURATION AND BR-C

MODIFICATION MANAGEMENT FOR SAFETY ENHANCEMENT AND IMPROVED

RELIABILITY

Chair: Satoru Yasuraoka Rapporteur: Kenta Murakami

Paper No.	Presenting Author	Designating Member State/Organization	Title of Paper
68	O. Martin	EC-JRC	The NUCOBAM Project – Use of Additive Manufacturing in Reactor Component Manufacturing
9	T. Tatsuno	Japan	Overview of Replacement of 3-loop PWR Reactor Vessel Internal
59	E. Maita	Argentina	Development and Improvement of Moderator Pump Sensors for DBA Using Qualification Through Mock Up Methodology in Atucha 1 NPP
37	D. Greenwood	USA	Requirements Management: Extending Plant Life and Improving Equipment Maintainability

15:00-16:00 SESSION 2-1 ECONOMICS OF PLANT LIFE CR-2

**MANAGEMENT** 

Chair: Junji Eto Rapporteur: Hiroki Sugino

Paper No.	Presenting Author	Designating Member State/Organization	Title of Paper
115	S. Gezer	Türkiye	Strategic innovation for sustainability of global electricity generation: Nuclear
22	R. Takahashi	Japan	Thermal integration with Renewable energy in Steam turbine plant
124	R. Caricchio	Brazil	Analysis of the economic and financial viability of the Angra 1 life extension
110	L. Martin Huete	Spain	Cost-effectiveness of reliability- focused maintenance for Long- Term Operation
12:45-13:45 Lunch Break			

#### Wednesday, 30 November 2022

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### Wednesday, 30 November 2022

16:30-17:30 SIDE EVENT: WOMEN IN NUCLEAR SIDE CR-2

EVENT: SPOTLIGHTING NUCLEAR

**CHANGEMAKERS** 

This side event will highlight leaders who are currently taking concrete, dynamic actions in PLiM to ensure the safe long-term operation of existing NPPs. It will feature changemakers in the field and involve a wide variety of perspectives, including the approach of policymakers, regulators, owner-operators, industry representatives, etc. The discussion will focus on main lessons learned and recommendations to be considered when implementing PLiM, as well as a number of challenges to be addressed in the future. Join NENP Director A. des Cloizeaux, N. Morelova (moderator) and panellists P. Pedernera, S. Forrai, N. Šubrtová and C. Van Drunen for an excellent discussion.

#### Thursday, 1 December 2022

09:00-11:00	Posters & Exhibitors	C-02
10:30-11:00	Coffee Break	C-02

#### Thursday, 1 December 2022

#### 11:00-11:30 PLENARY KEYNOTE

#### Plenary Room (BR-C)

BR-C

Time	Name	Designating Member State/Organization	Title (as applicable: Opening Address; Welcome Address; Keynote Address or Title)
11:00–11:30	C. Jang	Korea/KAIST	Human Factors and Managerial Aspects

#### Thursday, 1 December 2022

11:30-12:45 SESSION 5-2 STAKEHOLDER

ENGAGEMENT, HUMAN FACTORS AND

**MANAGERIAL ASPECTS** 

Chair: Christina Van Drunen Rapporteur: Pam Gorman

Paper No.	Presenting Author	Designating Member State/Organization	Title of Paper		
113	V. Segovia	USA	Outreach – Key to Stakeholder Engagement		
5	A. Yamamoto	Japan	Stakeholder engagement and public understanding for LTO in Japan		
125	H. Francina Swanepoel	South Africa	Using an Integrated Asset Management and Human Resilience Approach to Deal with Global Disruptors and Complexity of Power Utility Operations		
117	117 <b>C. Lundqvist</b> Sweden The changing role of Swedish nuclear operations in the context of northern Europe				
11	J. Eto	Japan	Research on risk assessment human resources and R & D to efficiently realize safe long-term operation in Japan		
12:45-13:45 Lunch Break					

### Thursday, 1 December 2022

11:30–12:45 SESSION 4-2 CONFIGURATION AND MODIFICATION MANAGEMENT FOR

SAFETY ENHANCEMENT AND IMPROVED

RELIABILITY

Chair: Kiyoteru Suzuki Rapporteur: Hiroki Sugino

CR-2

Paper No.	Presenting Author	Designating Member State/Organization	Title of Paper
61	A. Zander	Germany	Innovative Concepts and Solutions to support Nuclear Power Plant Long Term Operation
100	J. Moore	Canada	Canadian Industry Innovations Relation to Plant Life Management and Refurbishments
32	S. Okada	Japan	Apply robotics technology of decommissioning Fukushima-Daiichi to aging measure for nuclear power plant
129	S. Qureshi	Canada	CANDU Heat Transport System: Roadmap to Mitigate Aging Effects
118	A. Mohamad	Japan	The behaviour of Cr-coated Zry cladding under high-temperature steam oxidation
12:45-13	:45 Lunch Break		

#### Thursday, 1 December 2022

13:45-15:00 PANEI

PANEL 3 ENSURING NUCLEAR POWER'S BR-C CONTRIBUTION TO REACH CARBON NEUTRALITY AND/OR ENERGY SECURITY TARGETS: THE RELEVANCE OF LTO/LR PROGRAMMES AND PROJECTS

Facilitator: Koji Nagano (Japan/CRIEPI)

Panel Members	Designating Member State/Organization	
A. Gottschling	Canada/AECL	
G. Raud	France/DGEC	
T. Tanaka	Japan/Kansai NP	
B. Parkash	India/NPCIL	

### Thursday, 1 December 2022

15:00-16:00 SESSION 2-2 ECONOMICS OF PLANT

LIFE MANAGEMENT

Chair: Satoru Yasuraoka Rapporteur: Hiroki Sugino

BR-C

Paper No.	Presenting Author	Designating Member State/Organization	Title of Paper
75	J. Kickhofel	FORATOM	Use of High-Quality Industrial Grade Items in Nuclear Facilities: A European Guideline

31	R. Austin	EPRI	Application of the EPRI Nuclear Plant Modernization Strategy at Existing Nuclear Power Plants
133	J. Tokey	USA	Legislative Updates Impacting Nuclear Power Plants in the United States
92	Z. Tomsic	Croatia	Assessment of Extending Operation of Nuclear Power Plant Krško from 2023 to 2043 - Techno-economic, Ecological and Power Flows and System Dynamics Influence

#### Thursday, 1 December 2022

15:00-16:00 SESSION 6-3 REGULATORY

APPROACHES TO AGEING
MANAGEMENT AND LONG-TERM
OPERATION

Chair: Diptojyoti Bhattacharya

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Rapporteur: Gabor Petofi

CR-2

Paper No.	Presenting Author	Designating Member State/Organization	Title of Paper
36	A. Chepurna	Ukraine	Regulatory approaches to ageing management and long-term operation of Ukrainian NPPs. Experience, practice and lessons learned
67	A. Hiser	USA	How Did the United States Get to the Point of Renewing Nuclear Power Plant Operating Licenses to 80 Years?
18	K. Murakami	Japan	Japanese Codes and Standards to Support Long Term Operation of Nuclear Power Plant
134	J. Alonso-Escós	Spain	Regulatory approach to ageing management and long-term operation in Spain

#### Thursday, 1 December 2022

16:00-16:30	Coffee Break	C-02	

### Thursday, 1 December 2022

16:30–17:30 SIDE EVENT: INNOVATIVE NUCLEAR CR-2 POWER DATA

The side event will present Innovative Data Visualizations of NPP operating experience and tools for nuclear power performance assessment. This event will also include a demonstration of the winning submission developed for the IAEA Competition on Innovative Data Visualization of Operating Nuclear Power Plants, followed by a panel discussion with the winner and experts from

the IAEA. The winner will discuss the data and technology used for their visualizations, discuss how the infographics capture current statuses, challenges, opportunities, or successes related to the ageing and maintenance of operating nuclear power plants.

#### Friday, 2 December 2022

09:00-10:30	Posters & Exhibitors	C-02
10:00-10:30	Coffee Break	C-02

#### Friday, 2 December 2022

#### 10:30-11:00 **PLENARY KEYNOTE**

Plenary Room (CR-7)

Time	Name	Designating Member State/Organization	Title
10:30–11:00	M. Turner	Slovakia/UJD SR	Regulatory Approaches to Ageing Management and Long-Term Operation

#### Friday, 2 December 2022

11:00-12:00 **SESSION 3-4 AGEING MANAGEMENT** AND PREPARATION OF LONG-TERM

**OPERATION** 

Chair: Kenta Murakami Rapporteur: Nathan Paterson

CR-7

Paper No.	Presenting Author	Designating Member State/Organization	Title of Paper		
104	E. Lopez	Argentina	Development of a methodology for implementing an Ageing Management Review for a Dry Spent Fuel Storage Facility in Argentina		
108	S. Kumar	India	A graded and systematic approach to ageing management and structural assessment of existing concrete structures in nuclear facilities of India		
88	R. Polyakova	Russia	Assessment of the HAZ metal properties for VVER-1000 RPV lifetime extension		
20	T. Hayashi	Japan	Improvement of Structural Integrity Evaluation Methodology of BWR Reactor Components for Long Term Operation		
12:00-13	12:00-13:00 Lunch Break				

#### Friday, 2 December 2022

11:00-12:00 SESSION 1-4 APPROACHES TO PLANT CR-2

LIFE MANAGEMENT

Chair: Abdou Al Mazouzi Rapporteur: Oliver Martin

Paper No.	Presenting Author	Designating Member State/Organization	Title of Paper	
114	G. Adkins	USA	The License Renewal Process: Application to Implementation	
102	D. La Valle	Argentina	Methodology For SSC Aging Evaluations In The Framework Of Safety Reviews For Argentine Research Reactors	
7	T. Terachi	Japan	Preparation for long-term operation of the Kansai Electric Power Company	
12:00-13:0	12:00-13:00 Lunch Break			

#### Friday, 2 December 2022

13:00-14:15 PANEL 4 HOW LTO RELATED CR-7

CHALLENGES WILL BE MANAGED IN A COMPETITIVE WAY THROUGH INNOVATION

Facilitator: Sonya Forrai (USA/Westinghouse)

Panel Members	Designating Member State/Organization
A. Simpson	UK/NNL
J. Tokey	USA/DOE
J. Moore	Canada/OCNI
A. Al Mazouzi	France/EDF/SNETP

#### Friday, 2 December 2022

#### 14:15-14:45 CLOSING SESSION CR-7

Time	Name	Designating Member State/Organization	Title
14:15–14:30	HE T. Hikihara	Japan/Ministry of Foreign Affairs	Closing Report from Conference co- President
14:30–14:45	A. Bradford	Director, Division of Nuclear Installation Safety	Keynote Address

#### PARTICIPATION IN IAFA SCIENTIFIC CONFERENCES

Governments of Member States and those organizations whose activities are relevant to the conference subject matter are invited to designate participants. In addition, the IAEA itself may invite a limited number of scientists as invited speakers. Only participants designated or invited in this way are entitled to present papers and take part in the discussions.

Scientists interested in participating in any of the IAEA conferences should request information from the Government authorities of their own countries, in most cases the Ministry of Foreign Affairs or national atomic energy authority.

#### **PUBLICATIONS**

#### **Proceedings**

The proceedings of the conference containing all presentations and posters delivered at the conference, as well as the findings and recommendations, will be published by the IAEA as soon as possible after the conference.

#### **Orders**

No registration fee is charged to participants but they are encouraged to order for themselves or on behalf of their supporting organization at least one copy of the proceedings. These can be obtained at a special price representing half the estimated sales price provided that they are ordered and paid for during the conference at the Conference Desk.

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#### FORTHCOMING SCIENTIFIC CONFERENCES SCHEDULED BY THE IAEA

#### 2022

International Conference on Integrated Medical Imaging in Cardiovascular Diseases (IMIC-2022) (CN-304), 13-16 December, Vienna, Austria

#### 2023

International Conference on Effective Nuclear and Radiation Regulatory Systems (CN-309), 13-16 February, Abu Dhabi, United Arab Emirates

International Symposium on Trends in Radiopharmaceuticals (ISTR-2023) (CN-310), 17-21 April, Vienna. Austria

International Symposium on Uranium Raw Material for the Nuclear Fuel Cycle: Innovation for Sustaining Future Resources and Production (URAM-2023) (CN-311), 8-12 May, Vienna, Austria

International Conference on Nuclear Decommissioning: Addressing the Past and Ensuring the Future (CN-312), 15-19 May, Vienna, Austria

International Conference on Computer Security in the Nuclear World: Security for Safety (CN-313), 19-23 June, Vienna, Austria

International Symposium on Isotope Hydrology (CN-320), 3-7 July, Vienna, Austria

Second International Conference on Climate Change and the Role of Nuclear Power (CN-315), 9-13 October, Vienna, Austria

29th IAEA Fusion Energy Conference (CN-316), 16-21 October, London, United Kingdom

International Conference on Waste and Environmental Safety: Integrated Approach to Strengthening Sustainable Development (CN-318), 6-10 November, Vienna, Austria

International Conference on Research Reactors: Achievements, Experience and the Way to a Sustainable Future (CN-319), 27-30 November, Dead Sea, Jordan

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For information on forthcoming scientific meetings, please consult the IAEA web site: <a href="http://www.iaea.org/events">http://www.iaea.org/events</a>