

President of the Symposium: Jianfeng Yu, China

Programme Committee:

Chairperson: P. Tipping, Switzerland

L.E. Ovando, Argentina	K. Maeda, Japan
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M. Yankov, Bulgaria	G. Fernandez, Mexico
A. Blahoiianu, Canada	A. de Jong, Netherlands
R. Mohindra, Canada	W. Butt, Pakistan
M. Xia, China	V. Lysakov, Russian Federation
C. Chen, China	I. Gorrochategui, Spain
J. Zhuo, China	P.G. Efsing, Sweden
J. Zdarek, Czech Republic	M. Steinberg, Ukraine
B. Wahlström, Finland	T. Taylor, USA
U. Staudt, Germany	C. Rieg, EC/JRC
R. Koring, Germany	P. Kovacs, OECD/NEA
B. Bletz, Germany	K.S. Kang, IAEA
T.J. Katona, Hungary	T. Inagaki, IAEA
K. Dixit, India	

Symposium Secretariat:

Scientific Secretaries:	K. S. Kang, IAEA
	T. Inagaki, IAEA
Scientific Coordination:	P. Lynch, IAEA
Symposium Coordination:	R. Perricos, IAEA
	H. Schmid, IAEA
Local Organization:	C. Chen, China
	J. Zhuo, China

Location of the Symposium:

Shanghai International Convention Center
(Oriental Riverside Hotel)
2727, Riverside Avenue
Shanghai 200120
China
Tel: +86 21 50370000
Fax : +86 21 50370045
Web site: www.shicc.net

Working Language: English

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

TIMETABLE

Sunday, 14 October 2007

16:00–18:00 Registration 7th Floor in front of the Grand Ballroom
 17:00–19:00 Welcome Reception Hosted by the IAEA

Monday, 15 October 2007

08:00 Registration 7th Floor in front of the Grand Ballroom
 09:30–11:10 Opening Session (Grand Ballroom)
 11:10–11:30 Coffee/Tea Break
 11:30–12:45 Session 1-1 Approaches to PLiM (Grand Ballroom)
 12:45–14:00 Lunch Break
 14:00–15:40 Session 1-2 Approaches to PLiM (Grand Ballroom)
 15:40–16:00 Coffee/Tea Break
 16:00–18:15 Session 1-3 Approaches to PLiM (Grand Ballroom)
 18:30 Symposium Dinner Hosted by the CNNC

Tuesday, 16 October 2007

08:30–10:15 Plenary Session Keynote Speeches (Grand Ballroom)
 10:15–10:30 Coffee/Tea Break
 10:30–12:10 Parallel Sessions:
 Session 2-1 Ageing Management Programme (Grand Ballroom)
 Session 2-4 ISI for Ageing Management (Room F on the 5th Floor)
 Session 3-1 Environmental Assisted Cracking (Room B on the 5th Floor)
 Session 3-4 Flow Accelerated Corrosion (Room D on the 5th Floor)
 12:10–14:00 Lunch Break
 14:00–15:40 Parallel Sessions:
 Session 2-2 Ageing Management Programme (Grand Ballroom)
 Session 2-5 Probabilistic Approaches to Ageing Management (Room F on the 5th Floor)
 Session 3-2 Integrity and Material Degradation Issues (Room B on the 5th Floor)
 Session 3-5 Fatigue Damage (Room D on the 5th Floor)
 15:40–16:00 Coffee/Tea Break
 16:00–18:00 Parallel Sessions:
 Session 2-3 Ageing Management Programme for BWR (Grand Ballroom)

16:00–18:00 Session 2-6 Ageing Management Programme for PHWR (Room F on the 5th Floor)
 Session 3-3 Non-Metallic Material Ageing Management (Room B on the 5th Floor)
 Session 3-6 RPV/RPVI Integrity (Room D on the 5th Floor)
 18:30 Dinner Cruise Hosted by the CNNC

Wednesday, 17 October 2007

08:30–10:15 Plenary Session Keynote Speeches (Grand Ballroom)
 10:15–10:30 Coffee/Tea Break
 10:30–12:10 Panel Discussion Challenges and Needs for PLiM for LTO (Grand Ballroom)
 12:10–14:00 Lunch Break
 14:00–15:40 Parallel Sessions:
 Session 3-7 RPV/RPVI Integrity (Room D on the 5th Floor)
 Session 4 I&C Modernization (Room B on the 5th Floor)
 Session 5 Economics of Plant Life Management (Room F on the 5th Floor)
 15:40–16:00 Coffee/Tea Break

14:00–17:00 Poster Session (Grand Ballroom)

Thursday, 18 October 2007

08:30–09:00 Plenary Session Keynote Speech (Grand Ballroom)
 09:00–11:00 Session 6 Regulatory Issues Concerned with Plant Life Management (Grand Ballroom)
 11:00–11:20 Coffee/Tea Break
 11:20–12:00 Session 6 Continued (Grand Ballroom)
 12:00–13:30 Closing Session Recommendations and Conclusions (Grand Ballroom)
 13:30 Closing of the Symposium

Posters will be on display throughout the Symposium

Commercial exhibits will be shown in the Pearl Room on the 7th Floor.

Friday, 19 October 2007

08:00–17:00 Technical Tour Qinshan Nuclear Power Plant Site

SUNDAY, 14 OCTOBER 2007

- 16:00–18:00 Registration and distribution of
symposium material
- 17:00–19:00 Welcome Reception hosted by the IAEA

MONDAY, 15 OCTOBER 2007

08:00 Registration and distribution of
symposium material

09:30–11:10 **OPENING SESSION**
(Grand Ballroom)

Qin Sun, China

Chairman
CAEA

Yury A. Sokolov, IAEA

Deputy Director General,
Head of the Department of
Nuclear Energy

Rixin Kang, China

President
CNNC

Jianfeng Yu, China

Symposium President
Vice President
CNNC

Keynote Speakers

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
01KS	K.S. Kang T. Inagaki	IAEA	IAEA activities on plant life management for long term operation
02KS	P. Simola	Finland	Proactive plant life management – one of TVO's key success factors
03KS	M.G. Zheng	China	Prospects of PLiM in China
11:10–11:30	Coffee/Tea Break		

11:30–12:45 **SESSION 1-1:
Approaches to Plant Life Management
(Grand Ballroom)**

Chairperson: **B. Shalaby, Canada**

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
001	I. Aho-Mantila R. Rintamäa L. Heikinheimo N. Taylor	Finland Netherlands	European research network aiming at harmonized nuclear plant life prediction procedures
002	R. F. Dam R. Gold J. Nickerson B. Shalaby	Canada	Recent PLiM advances for current operation and long life
003	T. Katona S. Rátkai	Hungary	Key elements of long-term operation of WWER-440/213 units at Paks NPP

12:45–14:00 Lunch Hosted by the CNNC

14:00–15:40 **SESSION 1-2:
Approaches to Plant Life Management
(Grand Ballroom)**

Chairperson: **C. Faidy, France**

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
004	L. Francia I. Gorrochategui R. Marcos	Spain	NPP long term operation in Spain first application for license renewal
005	J.J. Kwon W. Kim	Korea, Republic of	Implementation of the rules for the continued operation in Korea
006	H. Rust	Switzerland	Nuclear power plant life management: strategy for long term operation of the Beznau NPP unit 1 and 2
007	P.A. Costa Filho P.R.B.Rodrigues L.D.B. Ferrari J.A.R. Amaral	Brazil	Plans for long term operation in Angra NPP

15:40–16:00 Coffee/Tea Break

16:00–18:15 **SESSION 1-3:**
Approaches to Plant Life Management
(Grand Ballroom)

Chairperson: **T. Katona, Hungary**

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
008	C. Faidy	France	EDF approach for ageing/life management and its relation to the IAEA guidelines
009	T. Kamada H. Tanaka S. Miyama	Japan	Maintenance measures related to plant life management taken by Japanese PWRs
010	G. Young	USA	The role of license renewal in PLiM for US nuclear power plants
011	M. Bakirov V. Potapov A. Kan A. Dementev V. Levchuk E. Bakhus S. Chubarov V. Ilyn	Russian Federation	The experience of service life prolongation of NPP units of the first generation
012	G. Diaz R. Sainz P. Luna C. Schiersmann O. Monsech	Argentina	Embalse NGS PLiM overview

18:30 Symposium Dinner Hosted by the CNNC

TUESDAY, 16 OCTOBER 2007
(Grand Ballroom)

08:30–10:15 **PLENARY SESSION**

Keynote Speakers

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
04KS	F. Hedin	France	Approaches to plant life management in France
05KS	J. Froats	Canada	Refurbishments & life extensions – Lessons from the past to get it right in the future
06KS	E. Fischer	Germany	Plant life management in German nuclear power plants

10:15–10:30 Coffee/Tea Break

10:30–12:10 **PARALLEL SESSION 2-1:**
Ageing Management Programme
(Grand Ballroom)

Chairperson: **J.J. Kwon, Korea, Republic of**

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
013	B. Bletz G. Koenig M. Alt W. Hoffmann	Germany	Ageing management at the NPPs of EnBW in Germany
014	A. de Jong	Netherlands	Ageing management and long term operation of NPP Borssele
015	T. Griesbach B. Gordon J. Zhang	USA	Materials ageing management programs at nuclear power plants in the United States
016	Ľ. Kupča J. Borák	Slovakia	Ageing management in the Slovak Republic NPP's

12:10–14:00 Lunch hosted by CNNC

TUESDAY, 16 OCTOBER 2007 (continued)
(Grand Ballroom)

14:00–15:40 **PARALLEL SESSION 2-2:**
Ageing Management Programme

Chairperson: **B. Bletz, Germany**

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
017	K.-H. Herter E. Roos X. Schuler W. Hienstorfer	Germany	Applications of lifetime management for mechanical SSC in NPPs
018	M. Oszthaimer P. Pálfi T. Pálfi Á. J. Bíró	Hungary	Review and development of ageing management programs of the main components at Paks NPP
019	S. Šavli M. Ferjančič D. Pavlin D. Lovinčič	Slovenia	Surveillance over the ageing effects and ability for the long term operation at the Krsko NPP
020	P. Contri	EC/JRC	Plant life management models with special emphasis to the integration of safety with non-safety related programs

15:40–16:00 Coffee/Tea Break

TUESDAY, 16 OCTOBER 2007 (continued)
(Grand Ballroom)

16:00–18:00 **PARALLEL SESSION 2-3:**
Ageing Management Programme for
Boiling Water Reactor

Chairperson: **L. Francia, Spain**

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
021	V. Thatey K.R.Anilkumar P.K. Das U.Ramamurty	India	Plant life management experience at Tarapur Atomic Power Station
022	C. Nichols	USA	The synergies of PLiM, PLEX, and power uprates: lessons learned from recent BWR experience
023	C. Arganis Juárez J.A.Aguilar M. A. Sanchez	Mexico	Ageing management program to reactor pressure vessel internals components in a BWR nuclear power plant
024	N. Yamashita T. Isogai	Japan	Ageing management for TEPCO's BWR reactor internals

18:30 Dinner Cruise Hosted by the CNNC

TUESDAY, 16 OCTOBER 2007
(Room F on the 5TH Floor)

10:30–12:10 **PARALLEL SESSION 2-4:**
ISI For Ageing Management

Chairperson: **M. Bakirov, Russian Federation**

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
025	J.-J. Nicolay D. Dallery	France	Ageing management, in service inspection and exceptional maintenance
026	R. Martinez-Oña J. Ortega T. Bateucas	Spain	In-service inspection and qualification of critical components: key issues for the Life management programme
027	P. Trampus S. Rátkai D. Szabó	Hungary	Establishing a new ISI for Paks NPP
028	O.P. Zhu B.Y. Kim N.S. Jin	Korea, Republic of	Onsite inspection experience of electric equipment in license process of the continued operation of Kori unit one

12:10–14:00 Lunch Hosted by the CNNC

14:00–15:40 **PARALLEL SESSION 2-5:**
**Probabilistic Approaches to Ageing
Management**
(Room F on the 5th Floor)

Chairperson: **L. Heikinheimo, Finland**

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
029	A. Rodionov D. Serbanescu M. Patrick	EC/JRC Czech Republic	Network on use of PSA for evaluation of ageing effects to the safety of energy facilities activities and results
030	T. Azuma	Japan	The proposal evaluation approach of the risk informed-ISI and the result of trial evaluation
031	G. Petkov	Bulgaria	Application of dynamic system reliability methods for incorporation of age-dependent reliability parameters and data into the PSA
032	P. Varpasuo	Finland	Analysis of the replacement need for the containment anchoring bolts of the Loviisa NPP estimated by the strength assessment

15:40–16:00 Coffee/Tea Break

TUESDAY, 16 OCTOBER 2007 (continued)
(Room F on the 5th Floor)

16:00–18:00 **SESSION 2-6:**
Ageing Management Programme for
Pressurized Heavy Water Reactor

Chairperson: **R. Mohindra, Canada**

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
033	W.M. Butt A. Zia M. Tahir Siddique	Pakistan	SSC design modification, modernization, refurbishment and replacement: as a part of life extension of KANUPP
034	J. Slade T. Gendron	Canada	Material degradation management of the reactor coolant system at the Point Lepreau Generating Station
035	M. Cojan G. Florescu M. Roth I. Pirvan D. Lucan	Romania	Considerations related to CANDU 6 lifetime management
036	I.S. Jeong G.H.Ha W.J. Kim T.R. Kim H.Y. Roh S.D. Lee	Korea, Republic of	Life assessment experience for continued operation of a CANDU NPP in Korea
077	X. Duan S. Pagan M.J. Kuzluk	Canada	Assessment of crack-like flaw in ex-service Monel 400 steam generator tube removed from Pickering unit 4 steam generator 12
18:30	Dinner Cruise Hosted by the CNNC		

TUESDAY, 16 OCTOBER 2007
(Room B on the 5th Floor)

10:30–12:10 **PARALLEL SESSION 3-1:**
Environmental Assisted Cracking

Chairperson: **N. Sekimura, Japan**

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
037	J.S. Kim M.J. Kim D.J. Kim H.P. Kim	Korea, Republic of	Prevention of SCC occurring in an expansion transition region of steam generator tubing by Ni-plating in PWRs
038	Y. Kaji Y. Miwa N. Okubo K. Kondo T. Igarashi T. Tsukada	Japan	Development of damage evaluation method considering radiation induced stress relaxation
039	M. Herrera R. Mattson N. Cofie J. Zhang	USA	Management of stress corrosion cracking in pressurized water reactors
040	M.H. Song H.S. Shin S.C. Kang	Korea, Republic of	Failure analysis on primary water stress corrosion cracking of alloy 600 plugs for steam generator tube at a Korean NPP

12:10–14:00 Lunch Hosted by the CNNC

TUESDAY, 16 OCTOBER 2007 (continued)
(Room B on the 5th Floor)

14:00–15:40 **PARALLEL SESSION 3-2:**
Integrity and Material Degradation Issues

Chairperson: **P.E. Juhn, Korea, Republic of**

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
041	B. Liang	China	Periodic remaining life evaluation program of PWR presurizer surge line accounting for thermal stratification effect
042	M. Chocrón R. Saucedo L. Ovando R. Sainz	Argentina	Ageing management of the secondary circuit and related components of Embalse NPP
043	Y.J. Kim P.E. Juhn S.B. Han J.S. Kim T.E. Jin H.Y. Shin Y.S. Park	Korea, Republic of	Structural integrity evaluation of cast austenitic stainless steel reactor coolant piping for continued operation of nuclear power plants
044	H. Liu G. Chun J. Tao W. Zhigang	China	Progress of steam generator ageing management of Chinese NPPs

15:40–16:00 Coffee/Tea Break

TUESDAY, 16 OCTOBER 2007 (continued)
(Room B on the 5th Floor)

16:00–18:00 **SESSION 3-3:**
Non-Metallic Material Ageing Management

Chairperson: **H. Rust, Switzerland**

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
045	R.M. Vázquez-Cervantes E.E. García-Hernández C. Garcia-Martinez	Mexico	Development of cable ageing management program and equipment qualification improvement for Laguna Verde Nuclear Power Plant
046	J.S. Kim	Korea, Republic of	Experimental relationship of break-elongation and indent data for ageing degradation of CSP and CR cable jacket
047	A. Yamamoto A. Huerta K. Gott T. Koshy	OECD/NEA Sweden USA	Improving regulatory practices through the OECD-NEA stress corrosion cracking and cable ageing project (SCAP)
048	L.M. Smith L. D'Andrea A. Huerta E. Mathet	UK Italy OECD/NEA France	The collection of information, data and materials samples from concrete structures on nuclear facilities under decommissioning for ageing and degradation evaluation

18:30 Dinner Cruise Hosted by the CNNC

TUESDAY, 16 OCTOBER 2007
(Room D on the 5th Floor)

10:30–12:10 **PARALLEL SESSION 3-4:**
Flow Accelerated Corrosion

Chairperson: **Y. Dou, China**

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
049	R. Gersinska H.-P. Berg H. Waidele T. Weissenberg U. Rückriem H. Hüper	Germany	Results of German investigations on damage due to material ageing and corrosion
050	T.M. Moolayil	India	Mitigation of degradation of high energy secondary cycle piping due to flow accelerated corrosion and life management of high energy piping in India nuclear power plants
051	Y.F. Wang Z.G.Yang J.Z. Yuan Y.X. Zheng M. Yang J.M.Shang	China	Failure analysis on erosive wear of RCW heat exchanger titanium tubes
052	M. Bakirov V. Levchuk L. Selesnev A. Eremyn H. Cheng	Russian Federation IAEA	New approaches for flow-accelerated corrosion estimation

12:10–14:00 Lunch Hosted by the CNNC

TUESDAY, 16 OCTOBER 2007 (continued)
(Room D on the 5th Floor)

14:00–15:40 **PARALLEL SESSION 3-5:**
Fatigue Damage

Chairperson: **P. Trampus, Hungary**

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
053	D. Gerber G. Stevens T. Gilman J. Zhang Presented by: T. Griesbach	USA	Fatigue monitoring for demonstrating fatigue design basis compliance
054	M. Brezina L. Kupča	Slovakia	Corrosion monitoring system in the Slovak Republic nuclear power plants
055	F. Xue L. Lin W. Ti N. Lu	China	Vibration assessment method and engineering applications to small bore piping in nuclear power plant
056	V. Vasiliev	Russian Federation	WWER pressure vessel life and ageing management for NPP long term operation in Russia

15:40–16:00 Coffee/Tea Break

TUESDAY, 16 OCTOBER 2007 (continued)
(Room D on the 5th Floor)

16:00–18:00 **SESSION 3-6:**
RPV/RPVI Integrity

Chairperson: **P. Kadecka, Czech Republic**

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
057	W. Server R. Nanstad	USA	IAEA coordinated research projects on irradiated reactor pressure vessel structural integrity
058	A. Ballesteros I. Marcelles	Spain	Aspects of operational life management of nuclear power plants
059	D. Erak V. Kochkin Y. Kevorkian S. Zaritsky A. Chernobaeva Y. Strombach	Russian Federation	Radiation embrittlement and neutron dosimetry aspects in WWER-440 reactor pressure vessels life time extension
060	Y. He W. Zhang M. Cao	China	Methodology research on prediction for operating lifetime of PWR RPV

18:30 Dinner Cruise Hosted by the CNNC

WEDNESDAY, 17 OCTOBER 2007

08:30–10:15 **PLENARY SESSION**
(Grand Ballroom)

Keynote Speakers

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
07KS	Y.I. Strombach	Russian Federation	Control of permanent set structures: Condition at lifetime extension of nuclear power plants
08KS	L. Bond	USA	Economics of plant life management
09KS	M. Bièth	EC/JRC	Needs in R&D supporting NPP PLiM

10:15–10:30 Coffee/Tea Break

10:30–12:10 **PANEL DISCUSSION:**
Challenges and Needs for PLiM for LTO
(Grand Ballroom)

Chairperson: **P. Tipping, Switzerland**

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
078	P. Tipping D. Kalkhof B. Raj T. Jayakumar B.P.C. Rao	Switzerland India	Nuclear power plant life management: materials and components, research, human resource, radwaste and regulatory aspects

Panel Members: A. Blahoianu Canada
N. Sekimura Japan
I.S. Hwang Korea, Republic of
J. Zdarek Czech Republic
K. Huffman USA
N. Sorokin Russian Federation
G. Bezdikian France

12:10–14:00 Lunch Hosted by the CNNC

14:00–17:00 **Poster Session (Grand Ballroom)**

WEDNESDAY, 17 OCTOBER 2007
(Room D on the 5th Floor)

14:00–15:40 **PARALLEL SESSION 3-7:**
RPV/RPVI Integrity

Chairperson: **W. Server, USA**

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
061	D. Kirilova K. Ilieva S. Belousov	Bulgaria	Conformity between LR0 mock-ups and VVERs NPP RPV attenuation
062	G. Pretzsch B. Gmal U. Hesse	Germany	Neutron activation of reactor components during operation lifetime of a NPP
063	B.S. Lee H. Hong, D.H. Lee D.G. Choi	Korea, Republic of	RT _{PTS} re-evaluation of Kori-1 RPV beltline weld by master curve tests

15:40–16:00 Coffee/Tea Break

WEDNESDAY, 17 OCTOBER 2007
(Room B on the 5th Floor)

14:00–15:40 **PARALLEL SESSION 4:**
I&C Modernization

Chairperson: **K.S. Kang, IAEA**

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
073	Z. Rabbani	Pakistan	Instrumentation and control modernization at KANUPP
074	T. Túri B. Katics J. Végh E. Holló I. Varga	Hungary	Steps toward a large-scale I&C modernization at Paks NPP to serve the planned plant service time extension
075	L.L. Chi , B. Zhang	USA	Managing I & C obsolescence for plant life extension
076	D. Greene R. Greene	USA	Case histories and lessons learned from the design, development, planning and implementation of new I&C systems, including effective integration with existing systems and processes

15:40–16:00 Coffee/Tea Break

WEDNESDAY, 17 OCTOBER 2007
(Room F on the 5th Floor)

14:00–15:40 **PARALLEL SESSION 5:**
Economics of Plant Life Management

Chairperson: **P. Kovács, OECD/NEA**

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
064	K. Huffman	USA	Strategies for sustaining current nuclear assets
065	B. Wahlström J. Hämäläinen K. Juslin J.E. Holmberg H. Harju L. Norros U. Pulkkinen T. Reiman J. Laarni K. Simola	Finland	Research in automation, risk analysis, control rooms, and organizational factors; applications to plant life management
066	P. Kadecka	Czech Republic	New plant life management for Dukovany NPPs.

15:40–16:00 Coffee/Tea Break

THURSDAY, 18 OCTOBER 2007

08:30–09:00 **PLENARY SESSION**
(Grand Ballroom)

Keynote Speaker

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
10KS	N. Sekimura	Japan	Securing the stability of ageing NPP – Improving inspection system and ageing management and planning of technological strategy for research basis

09:00–11:00 **SESSION 6:**
**Regulatory Issues Concerned with Plant
Life Management**
(Grand Ballroom)

Chairpersons: **A. Blahoianu, Canada**
J. Barceló Vernet, Spain

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
067	T. Viglasky, A. Blahoianu K. Kirkhope	Canada	Canadian approach on regulatory issues regarding ageing management, long term operation and plant life management
068	Y.W. Park Y. B. Kim	Korea, Republic of	Regulatory framework for continued operation in Korea
069	E. Vasilieva N. Karpunin	Russian Federation	Russian regulatory approach to extension of nuclear power plant service life
070	M. Šváb	Czech Republic	Regulatory approach to the long term operations of Czech nuclear power plants
079	K. Gott	Sweden	Ageing management in Sweden

11:00–11:20 Coffee/Tea Break

11:20–12:00 **SESSION 6 (continued)**

071	A. Blahoianu A. Huerta, A. J. Murphy C. Faidy L.M. Smith	Canada OECD/NEA	Activities of OECD/NEA in the regulatory aspects of plant life management
072	P. Kovacs	OECD/NEA	Lessons learned from the OECD study on the 'impacts of nuclear power plant life management on long term operation'

THURSDAY, 18 OCTOBER 2007 (continued)

12:00–13:30 **CLOSING SESSION**
(Grand Ballroom)

Chairperson: **P. Tipping, Switzerland**

Session Summary Presentations:

Sessions 1-1 ~ 1-3 **B. Shalaby, Canada**
Sessions 2-1 ~ 2-3 **J.J. Kwon, Korea, Republic of**
Sessions 2-4 ~ 2-6 **R. Mohindra, Canada**
Sessions 3-1 ~ 3-3 **N. Sekimura, Japan**
Sessions 3-4 ~ 3-7 **P. Trampus, Hungary**
Sessions 4 ~ 5 **P. Kovacs, OECD/NEA**
Session 6 **J. Barceló Vernet, Spain**

Recommendations and Conclusions

13:30 **CLOSING OF THE SYMPOSIUM**
(Grand Ballroom)

Chinese Representative

P. Jamet, IAEA

FRIDAY, 19 OCTOBER 2007

08:00–17:00 **Technical Tour to Qinshan Nuclear Power
Plant Site**

WEDNESDAY, 17 OCTOBER 2007

14:00–17:00 **POSTER SESSION**
(Grand Ballroom)

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
001P	C. Schiersmann R. Sainz	Argentina	Life assessment of primary heat transport system feeders at Embalse NGS
002P	D. Quinteros R. Manera P. Acevedo R. Sainz	Argentina	Refurbishment of main condenser circulating water piping of Embalse NPP
003P	P. Acevedo C. Tubello R. Bonelli R. Sainz	Argentina	Inverter system replacement at Embalse NPP
004P	H. Mangold P. Acevedo L. Ovando R. Sainz	Argentina	Replacement of flux detectors at Embalse NPP
005P	R. Bonelli C. Tubello P. Acevedo R. Sainz	Argentina	Condition assessment of main transformers and back-up main transformers of Embalse NPP
006P	L. Perez R. Buthet R. Manera P. Acevedo	Argentina	Modernization of instrumentation in water demineralization plant at Embalse NPP
007P	L. Alvarez L. Ovando R. Sainz	Argentina	Helicoidal spacers in the moderator heat exchanger at Embalse NPP
008P	S. Brunatti A. Bergara J. Ranalli R.A. Versaci	Argentina	Management activities for long term operations of Atucha II nuclear power plant
009P	Z. Plocek V. Kanický P. Havlík V. Salajka J. Novotný P. Štěpánek	Czech Republic	Pipe whip restraints-protection for safety related equipment of WWER nuclear power plants

POSTER SESSION (continued)

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
010P	T. Pálfi P. Pálfi S. Dancsó A. Jánosiné Bíró M. Osztheimer	Hungary	Design review of the VVER-440 NPP main components of the base of ASME BPVC
012P	Y. Yang L. Ying Z. Fenggang S. Yingxue L. Yan	China	Preliminary comprehensions about RPV and RVI ageing management and assessment technology
013P	Y.L. Lu G.-B. Zhou H. Jia J.-F. Huang	China	Rapid determination of histories of SIF distributions along 3-D crack fronts of RPV subjected to PTS by universal weight function and finite variation method
015P	B. Raj T. Jayakumar B.P.C. Rao A. Kumar P. Tipping	India Switzerland	Role of research in materials development, mitigation strategies and non-destructive evaluation for plant life management (PLiM) in the Indian nuclear power programme
018P	G. Shin W. Kim J. Kim	Korea, Republic of	The use of rotor diagnosis for the analysis of high vibration experience at turbine-generator system in nuclear power plants
019P	M. Gachúz Méndez M. Griz	Mexico	The specific surveillance program in the plant life management of Laguna Verde NPP
020P	C. Muscaloiu	Romania	Continuing systems/components reliability process
021P	A. Chernobaeva M. Miller K. Russell R. Nanstad Y. Strombach D. Erak O. Zabusov	Russian Federation USA USA USA Russian Federation	Evolution of WWER-1000 RPV materials nano-structure under irradiation and post irradiation annealing
022P	V. Kozlov I. Tutnov	Russian Federation	Application and ISO principles for regulatory practices and safety culture of nuclear installations being built to Russian designs
023P	D. Zhurko D. Erak A. Chernobaeva	Russian Federation	Identification of optimum parameters of annealing for the VVER-1000 RPV materials with high level of Ni
024P	K. Proskuryakov Y. Shan N. I. Polyakov	Russian Federation	Prevention of resonances between flow parameteres Oscillations and structure vibrations is the principal reserve of nuclear power plant life management
027P	M. Yastrebenetsky	Ukraine	Experience of NPP I&C management of ageing

POSTER SESSION (continued)

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
028P	E. Binetti V. Pruvost	Argentina	Replacement of heavy water supply controllers in fuel handling system
029P	Y.K. Shah S.N. Rao	India	Indian regulatory requirements with respect to plant life management for renewal of operation authorisation
030P	D. Datta C. Jang	Korea, Republic of	Failure probability assessment of a PWR primary system piping subcomponents under different loading conditions
031P	M. Lankin	Russian Federation	Methods of evaluation of operational experience for regulating decisions support
032P	V. Kochkin D. Makhotin	Russian Federation	Comparative analysis of irradiation conditions of surveillance specimens and RPV for lifetime extension of ROVNO-1 and ROVNO-2
033P	M. Bakirov V. Levchuk V. Rubtsov V. Petrosyan	Russian Federation Armenia	Application of the "leak before break" concept on NPP units of the first generation with the WWER-440 reactors. Improvements of leak detection systems considering new elaborated approaches
034P	M. Bakirov S. Kleschuk S. Chubarov G. Birjevovoy D. Nemitov E. Morozov R. Golovensky	Russian Federation	Problems of development of a prediction technique of a residual lifetime of heat exchanging tubes of WWER NPPs
035P	F. Gillemot T. Fekete M. Horváth L. Tatár	Hungary	Effect of the RPV cladding properties on the WWER-440 reactors lifetime
036P	H.K. Kim Y.H. Choi Y.B. Kim	Korea, Republic of	Development of ageing monitor for operating nuclear power plants
037P	K. Baumann-né Tanits A. Jánosiné Bíró M. Osztheimer L. Czibolya	Hungary	DACAAM-NET - An intranet application for management of ageing related data
038P	A. Bergara S. Brunati J. Ranalli R.A. Versaci G. Diaz R. Sainz	Argentina	Application of general methodology PLiM in the life assessment of emergency core cooling system heat exchanger at Embalse ENGS

POSTER SESSION (continued)

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
039P	K.S. Lee I.S. Jeong J.J. Yang T.G. Seo	Korea, Republic of	The lessons and findings from the fuel channel lifetime management study
040P	G. Dundulis A. Grybenas R. Janulionis V. Makarevicius	Lithuania	Ageing assessment of RBMK-1500 fuel channel in case of delayed hydride cracking
041P	G. Li	China	Piping evaluation under the degradation mechanism caused by control valve frequent action inducing vibration
042P	H. Chen	China	From the fire alarm system to improve fire safety of nuclear power plant
043P	M Zhang W. Yao	China	Ageing management review for reactor internals of PWR nuclear power plant
044P	P. Chao J. Bu	China	Ageing research for upgrades using digital I&C systems of nuclear power plant
045P	X. Liang J. Deng Y. Xie M. Zhang R. Yang Y. He	China	Vibration fatigue analysis for main stream pipelines on a NPP
046P	X. Shi J. Zhu X. Xu Y. Dou	China	Ageing management of carbon steel pipings in 300MWe PWR secondary systems
047P	X. Xu X. Shi Z. Bao Y. Dou	China	Ageing degradation problems and some countermeasure considerations of PWR RPV and RVI
048P	Z. Wang C. Kwong L.L. Chi	USA	Neutron monitoring system and rod control system upgrades for plant life extension
050P	V.M. Paliukhovich	Belarus	Regulatory issues in spent nuclear fuel management in Belarus
051P	V. Krastanov	Bulgaria	Regulative aspects and decisions at licensing contemporary I & C changes of NPP with WWER reactors in the context of PLiM
052P	K. Li-Zhong J.-L. Zhang H. Yan N. Gui-bing X. Zhe W. Qi	China	Appraisal and countermeasures of pressure pipelines of CI and BOP

POSTER SESSION (continued)

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
053P	Z. Plocek P. Štěpánek V. Salajka J. Kala V. Kanický	Czech Republic	Design of earthquake resistance enhancements of the Dukovany nuclear power plant building structures
055P	Z. Ilyas A. Melani	Indonesia	Regulatory control of ageing research reactor in Indonesia
056P	Z.G. Yang Y.F. Wang	China	Analysis and evaluation on hydrogen blistering of titanium tubes on tube sheet of RCW heat exchanger
057P	S. Nitiswati D.H. Nugroho	Indonesia	Preliminary study on strategy of plant life management for the first nuclear power plant in Indonesia
058P	O. Romanenko S. Shiganakov S. Kislitsin O. Maksimkin I. Yakovlev	Kazakhstan	Activity in Kazakhstan related to NPP life management
060P	G. Chun L. Hongyun W. Wei Z. Chuanli	China	Grade management of PWR steam generator potential ageing mechanism based on risk
061P	L.P. Pang T. Liu	China	General method of thermal stress calculation on pressured parts in nuclear power plant
064P	P. Luna G. Diaz H. Sveruga R. Sainz	Argentina	Maintenance and life assessment of steam generators at Embalse nuclear station
065P	T.H. Lee I.S. Hwang	Korea, Republic of	Framework for managing ageing effects of environmentally assisted cracking of nickel-based alloys in PWR environment
066P	Y. H. Choi, H.K. Kim Y.B. Kim	Korea, Republic of	Development of regulatory guidelines for the continued Operation of CANDU reactor in Korea
068P	R. Mohindra Q.B. Chou	Canada	Role of organizational leadership in plant life management
069P	M. Tanweer Khan F. Mansoor A. Habib	Pakistan	PNRA Experience with Licensing of KANUPP beyond Design Life
070P	L. Dias Batista Ferrari J. Maneschy T. Danton M. Cisternas P.A. Costa Filho	Brazil	Ageing related programmes in Angra NPP Units 1 and 2

POSTER SESSION (continued)

<i>No. of Paper IAEA-CN-155-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
071P	V. Popov	Bulgaria	The large projects at Kozlodzy NPP, with focus on long term operation and HM
072P	G. Weimann	Austria	Perspectives of plant life management with trans-boundary effects
073P	K. Arlamovsky M. Giersch H. Hirsch V. Holubetz G. Kastchiev W. Kromp E. Seidelberger S. Sholly G. Weimann	Austria	PWR-LTO and ageing: A study of available public material
074P	K. Nikbin	UK	Fracture mechanics-based life management of structural materials operating at elevated temperatures

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IAEA PUBLICATIONS RELATED TO THE SUBJECT OF THE SYMPOSIUM

IAEA Safety Standards Series NS-G-2.10	Periodic Safety Review of Nuclear Power Plants Safety Guide	2003
IAEA-TECDOC 1361	Assessment and Management of Ageing of Major Nuclear Power Plant Components Important to Safety: Primary Piping in PWRs	2003
IAEA-TECDOC 1383	Guidance for Optimizing Nuclear Power Plant Maintenance Programmes	2003
IAEA-TECDEC 1389	Managing Modernization of Nuclear Power Plant Instrumentation and Control Systems	2004
IAEA-TECDOC 1400	Improvement of In-Service Inspection in Nuclear Power Plants	2004
IAEA-TECDOC 1503	Nuclear Power Plant Life Management Processes: Guidelines and Practices for Heavy Water Reactors	2006
IAEA-TECDOC 1556	Assessment and Management of Ageing of Major Nuclear Power Plant Components Important to Safety: PWR Pressure Vessels	2007
IAEA-TECDOC 1557	Assessment and Management of Ageing of Major Nuclear Power Plant Components Important to Safety: PWR Vessels Internals	2007
IAEA-TRS 429	Guidelines for Application of the Master Curve Approach to Reactor Pressure Vessel Integrity in Nuclear Power Plants	2005
IAEA-TRS 448	Power Life Management for Long Term Operation of Light Water Reactors	2006
IAEA-EBP-WWER-08 REV.1	Guidelines on Pressurized Thermal Shock Analysis for WWER Nuclear Power Plant	2006

**FORTHCOMING SCIENTIFIC MEETINGS SCHEDULED BY
THE IAEA**

NOTES

2007

International Conference on Research Reactors: Safe
Management and Effective Utilization
5–9 November, Sydney, Australia

International Symposium on Clinical PET and Molecular Medicine
10–14 November, Bangkok, Thailand

International Conference on Illicit Nuclear Trafficking:
Collective Experience and the Way Forward
19–22 November, Edinburgh, UK

2008

International Conference on Topical Issues in Nuclear Installation
Safety,
Ensuring Safety for Sustainable Nuclear Development
17-21 March, Mumbai, India

International Symposium on Induced Mutations in Plants
12-15 August, Vienna, Austria

22nd IAEA Fusion Energy Conference
13-18 October, Geneva, Switzerland

International Conference on Nuclear Security: Global Directions
for the Future
December, Vienna, Austria

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