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International Conference on Opportunities and Challenges for Water Cooled Reactors in the 21st Century

Vienna, Austria, 27–30 October 2009

PROGRAMME



IAEA

International Atomic Energy Agency

CN-164

09-43411

Organized by the



In cooperation with the



EC Joint Research Centre (EC/JRC)



International Electrotechnical Commission (IEC)



OECD Nuclear Energy Agency (OECD/NEA)



World Nuclear Association (WNA)

***International Conference on Opportunities and
Challenges for Water Cooled Reactors in the
21st Century***

Vienna, 27-30 October 2009

PROGRAMME COMMITTEE

Chairperson:	B. Shalaby	Canada
P. Berbey		EDF-SEPTEN, France
J-P. Bouard		IEC
H. Dery		OECD-NEA
A. Aszodi		BME NTI, Hungary
S. Kawamura		TEPCO, Japan
T.R. Kim		KEPRI, Korea, Republic of
R. Gasca		ANAV, Spain
K. Foskolos		PSI, Switzerland
A. Collings		WNA
M. Bieth		European Commission, JRC/IE

IAEA Secretariat:

Scientific Secretaries:	K.S. Kang S. Bilbao y León O. Glöckler
Administrative Support:	H.O. Nam
Conference Coordination:	T. Alexander M. Khaelss
Exhibition Coordination:	E. Posta

Location of the Conference:

International Atomic Energy Agency
Vienna International Centre (VIC)
Building M
1400 Vienna
Austria

Working Language: English

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

	Session 3-1 "Design and Construction of Advanced Water Cooled Reactors"	(M1)	Session 5-1 "Advanced Technology Application"	(Press Room)
18:30-20:00	Welcome Reception Hosted by the IAEA (M building)		Session 6 "Safety Assessment in NPPs"	(M1)

Wednesday, 28 October 2009

09:00-10:30	Plenary Session "Design and Construction of Advanced Water Cooled Reactors" (Part II)	(Boardroom A)
10:30-11:00	Coffee Break	
11:00-12:30	Parallel Sessions: Session 1-2 "Current Nuclear Power Outlook—Opportunities to Launch New NPP Programme"	(Boardroom A)
	Session 2-2 "Nuclear Deployment Challenges and Solutions— Institutional and Cross Cutting"	(Press Room)
	Session 3-2 "Design and Construction of Advanced Water Cooled Reactors"	(M1)
12:30-14:00	Lunch	
14:00-15:30	Panel Discussion "Advanced Monitoring and Diagnostic Technologies in NPPs"	(Boardroom A)
15:30-16:00	Coffee Break	
16:00-18:00	Parallel Sessions: Session 4-1 "Safety and Performance Achievement in Current NPPs"	(Boardroom A)

Thursday, 29 October 2009

09:00-10:30	Plenary Session "Safety and Performance Excellence in Current NPPs"	(Boardroom A)
10:30-11:00	Coffee Break	
11:00-12:30	Plenary Session "Advanced Applications of Water Cooled Reactors"	(Boardroom A)
12:30-14:00	Lunch	
14:00-15:30	Poster Session and Technical Exhibitions	(MOE Hallway)
15:30-16:00	Coffee Break	
16:00-18:00	Parallel Sessions: Session 4-2 "Safety and Performance Achievement in Current NPPs"	(Boardroom A)
	Session 5-2 "Advanced Technology Application"	(Press Room)
	Session 7 "Instrumentation & Control"	(M1)
18:30-20:00	Official Dinner Hosted by Toshiba/Westinghouse (Melker Stiftskeller Vienna)	

Friday, 30 October 2009

09:00-10:30	Panel Discussion "Role of Water Cooled Reactors in the 21 st Century"	(Boardroom A)
10:30-11:00	Coffee Break	
11:00-12:30	Parallel Sessions: Session 2-3 "Nuclear Deployment Challenges and Solutions-- Institutional and Cross Cutting"	(Boardroom A)
	Session 4-3 "Safety and Performance Achievement in Current NPPs"	(Press Room)
	Session 5-3 "Advanced Technology Application"	(M1)
12:30-14:00	Closing Session	

**Posters will be on display for the duration of the
Conference**
(MOE Hallway)

Exhibitions

The organizers invite all participants to visit the Conference Exhibition in the exhibition area on ground, 1st and 2nd floor of M building. The exhibition is open during the conference as follows;

Opening of the exhibition : Tuesday Oct 27 at 11:00
Closing of the exhibition : Friday Oct 30 at 12:00

Exhibitors**MOE** (Ground floor)

- Toshiba Corporation Power Systems Company
- Westinghouse Electric
- OKB "GIDROPRESS"

MO1 (First floor)

- SNETP, Sustainable Nuclear Energy Technology Platform
- IEC, International Electrotechnical Commission
- CMSLM, Center of Material Science and Lifetime Management Ltd.
- AMS, Analysis and Measurement Services Corporation
- NuScale Power, Inc.
- FBNR Project Coordinator
- INTEC, Institute for Nuclear Technology

MO2 (Second floor)

- MHI, Mitsubishi Heavy Industries, Ltd.
- KHNP, Korea Hydro & Nuclear Power Co., Ltd.
- AREVA-NP
- AECL, Atomic Energy of Canada Ltd.
- HGNE, Hitachi GE Nuclear Energy, Ltd.

MONDAY, 26 OCTOBER 2009

16:00-19:00 Registration (VIC Gate 1)
Set-up of exhibits (Building M)

TUESDAY, 27 OCTOBER 2009

08:00-09:30 Ground Pass (VIC Gate 1)
Registration (MOE, Conference Desk)

09:30 -11:10 **OPENING SESSION:**
"Current Nuclear Power Outlook:
Opportunities & Challenges"
(Boardroom A)

Yury A. Sokolov, IAEA
Deputy Director General,
Head of the Department of Nuclear Energy

Basma Shalaby, Canada
Conference President

Adrian Collings, WNA
Director, Policy Development,
World Nuclear Association (WNA)

<i>No. of Paper</i> <i>IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member</i> <i>State/Organization</i>	<i>Title of Paper</i>
01KS	K.S. Kang S. Bilbao y León O. Glöckler	IAEA	IAEA's Support of Water Cooled Reactors in the 21 st Century and Beyond
02KS	T. Dujardin	OECD-NEA	State of Union for Operating Plants: Future Outlook, Safety Harmonization
03KS	G. de Santi	European Commission	European Nuclear Safety Research for the Nuclear Renaissance
11:10-11:30	Coffee Break		

TUESDAY, 27 OCTOBER 2009 (continued)

11:30-13:00 **PLENARY SESSION:**
"Challenges in Near Term Nuclear Power
Deployment"
(Boardroom A)
Chairperson: **B. Shalaby, Canada**

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
04KS	M. Zheng	China / SNERDI	The Challenge and Countermeasures for Human Resources Development on Nuclear Power in 21 st Century
05KS	P. Pradel	France / CEA (SNE-TP)	Nuclear Power: an Irreplaceable Option for Sustainable Development
06KS	H. Alkaabi	UAE / IAEA	Challenges Faced by Developing Countries in Nuclear Power Deployment

13:00-14:00 Lunch

14:00-15:30 **PLENARY SESSION:**
"Design and Construction of Advanced
Water Cooled Reactors" (Part I)
(Boardroom A)
Chairperson: **B. Shalaby, Canada**

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
07KS	J. S. Kim	Korea, Republic of / KHNP	Advanced Nuclear Power Plants in Korea
08KS	M. Hanyu T. Shimizu	Japan / Hitachi Japan / Toshiba	ABWR Technology & Construction Experiences / Experience of ABWR Operation and Global Deployment
09KS	A. Alizadeh	Canada / AECL	Design and Construction of Advanced PHWRs in Canada

15:30-16:00 Coffee Break

TUESDAY, 27 OCTOBER 2009 (continued)

16:00-18:00 **PARALLEL SESSION 1-1:**
"Current Nuclear Power Outlook–
Opportunities to Launch New NPP
Programme"
(Boardroom A)
Chairperson: **A. Collings, UK**

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
1S01	V. Kuznetsov N. Barkatullah	IAEA	Approaches to Assess Competitiveness of Small and Medium Sized Reactors
1S02	B. Meftah	Algeria	Outlook of Nuclear Energy in Algeria
1S03	M. Grinevičius G. Klevinskas L. Koraliovas	Lithuania	Implementation of the Visaginas Nuclear Power Plant Project in Lithuania
1S04	W. Shen	China	On the Sustainability of LWR Development in China
1S05	S. Elegba	Nigeria	Regional Approach to the Introduction of Nuclear Power Plants in Africa: Challenges and Opportunities

18:30-20:00 Welcome Reception Hosted by the IAEA
(Place : M Building)

TUESDAY, 27 OCTOBER 2009 (continued)

16:00-18:00 **PARALLEL SESSION 2-1:**
"Nuclear Deployment Challenges and
Solutions—Institutional and Cross Cutting"
(Press Room)

Chairperson: **O. Gonzalez-Hernandez, Portugal**

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
2S01	M.M. Haque M.A. Zulquarnain M.S. Islam	Bangladesh	Challenges and Opportunities to Introduce a First Nuclear Power Plant in Bangladesh
2S02	A. Alizadeh	Canada	Nuclear Power Development, Financing and Delivery
2S03	B.J.B. Nyarko E. H. K. Akaho I. Ennison	Ghana	Nuclear Power for Future Electricity Generation in Ghana: Issues and Challenges
2S04	H.-G. Kim	Korea, Republic of	Challenges and Opportunities in Launching New Nuclear Power Programs in Developing Countries
2S05	A.Strupczewski	Poland	Sustainability of Water Cooled Reactors - Energy Balance for Low Grade Uranium Resources

18:30-20:00 Welcome Reception Hosted by the IAEA
(Place : M Building)

TUESDAY, 27 OCTOBER 2009 (continued)

16:00-18:00 **PARALLEL SESSION 3-1:**
"Design and Construction of Advanced
Water Cooled Reactors"
(M1)
Chairperson: **A. Aszodi, Hungary**

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
3S01	P. Berbey	France	Status and Near-Term Works on the EUR Document, Possible Use by Third Parties
3S02	S. Azeez J. Hopwood	Canada	The Enhanced CANDU 6 Reactor - Generation III CANDU Medium Size Global Reactor
3S03	A. Kumar R. Srivenkatesan R.K. Sinha	India	On the Physics Design of Advanced Heavy Water Reactor (AHWR)
3S04	J. Kawahata K. Murayama K. Akagi	Japan	Advanced Construction Technologies and Further Evolution Towards New Build NPP Projects
3S08	L. Burgazzi	Italy	Open Issues Associated with Passive Safety Systems Reliability Assessment

18:30-20:00 Welcome Reception Hosted by the IAEA
(Place : M Building)

WEDNESDAY, 28 OCTOBER 2009

09:00 -10:30 **PLENARY SESSION:**
"Design and Construction of Advanced
Water Cooled Reactors" (Part II)
(Boardroom A)
Chairperson: **B. Shalaby, Canada**

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
10KS	N. Trunov	Russian Federation / Gidropress	VVER Reactors : Clean and Reliable Source of Energy in the Past and in the Future
11KS	E. Saji	Japan / MHI	Advanced Design of Mitsubishi PWR Plant for Nuclear Renaissance
12KS	A. Jackson	United States of America / Westinghouse	AP1000: Simplicity & Certainty

10:30-11:00 Coffee Break

11:00-12:30 **PARALLEL SESSION 1-2:**
"Current Nuclear Power Outlook–
Opportunities to Launch New NPP
Programme"
(Boardroom A)
Chairperson: **R. Awad, Canada**

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
1S06	T.J. Katona	Hungary	Future of the Nuclear Power Generation in Hungary
1S07	S. Keinmeesuke	Thailand	Infrastructure Development and Challenges to Launch Nuclear Power Programme in Thailand
1S08	B.Suprawoto Suparman	Indonesia	Evaluation on the Status of Indonesia Nuclear Infrastructure Development

12:30-14:00 Lunch

WEDNESDAY, 28 OCTOBER 2009 (continued)

11:00-12:30 **PARALLEL SESSION 2-2:**
"Nuclear Deployment Challenges and
Solutions—Institutional and Cross Cutting"
(Press Room)
Chairperson: **P. Berbey, France**

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
2S06	A. Mikhalevich	Belarus	Challenges and Opportunities to Launch Nuclear Power Programme in Belarus
2S07	G. Alonso J.C. Palacios J.R. Ramirez L.C. Longoria E. del Valle	Mexico	Alternatives of Financing for New Nuclear Reactors in Mexico
2S08	C.L. Turner T.E. Braudt	United States of America	Expert Performance Transfer: Making Knowledge Transfer Count
2S09	S. Doerffer N. Popov R. Ion J. Hopwood	Canada	ACR-1000® PROJECT - Licensing Opportunities and Challenges

12:30-14:00 Lunch

WEDNESDAY, 28 OCTOBER 2009 (continued)

11:00-12:30 **PARALLEL SESSION 3-2:**
"Design and Construction of Advanced
Water Cooled Reactors"
(M1)
Chairperson: **J-P. Bouard, IEC**

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
3S05	P. Gaio	United States of America	AP1000: The PWR Revisited
3S06	V. Kosogorov	Russian Federation	Evolution of VVER Technology towards NPP-2006 Project
3S07	T. Yamamoto K. Kurosaki Y. Ohga K. Tuzuki T. Tanaka M. Matsuura A. Murase S. Shimizu S. Kasai	Japan	Development of Next-Generation Light Water Reactor in Japan
3S09	H.G. Kim K.S. Choi	Korea, Republic of	Design Characteristics of the Advanced Power Reactor 1400

12:30-14:00 Lunch

WEDNESDAY, 28 OCTOBER 2009 (continued)

14:00 -15:30 **PANEL DISCUSSION:**
"Advanced Monitoring and Diagnostic
Technologies in NPPs"
(Boardroom A)
Chairperson: **O. Glöckler, IAEA**

Panel B. Bechtold, Germany / AREVA-NP
Members G. Johnson, IAEA
 H.M. Hashemian, USA / AMS
 J-P. Bouard, IEC
 K.H. Kim, Korea / DHIC

15:30-16:00 Coffee Break

16:00-18:00 **PARALLEL SESSION 4-1:**
"Safety and Performance Achievement in
Current NPPs"
(Boardroom A)
Chairperson: **R. Gasca, Spain**

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
4S01	M. Marchena J.Ranalli J.Zorrilla E.Antonaccio R.Versaci	Argentina	Plant Life Management Activities for Long Term Operation of the Argentinean Water Cooled Reactors
4S02	K.P. Stratton	Canada	Life Extension at the Point Lepreau Generating Station - Powering the Future
4S03	T.R. Kim	Korea, Republic of	R&D Activities for NPP Life Management in Korea
4S04	P. Contri B. Elsing C. Bruynooghe	EC/JRC-IE	Nuclear Power Plant Life Management - Challenges and Proposals for a Unified Model Integrating Safety and Economics
4S05	S.G. Toney C.E. Meyer M.G. Semmler X. Pitoiset	United States of America	Long-Term Aging Management Strategies for Nuclear Power Plants

WEDNESDAY, 28 OCTOBER 2009 (continued)

16:00-18:00 **PARALLEL SESSION 5-1:**
"Advanced Technology Application"
(Press Room)

Chairperson: **R.B. Duffey, Canada**

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
5S01	H. Boado Magan D. F. Delmastro M. Markiewicz E. Lopasso	Argentina	CAREM Prototype Construction and Licensing Status
5S02	F. Reisch	Sweden	Concept of a High Pressure Boiling Water Reactor, HP-BWR
5S03	M. Naidin I. Pioro R. Duffey S. Mokry L. Grande B. Villamere L. Allison A. Rodriguez-Prado S. Mikhael	Canada	Super Critical Water-cooled Nuclear Reactors (SCWRs): Thermodynamic Cycle Options and Thermal Aspects of Pressure-Channel Design
5S04	G. Heo H. Kim	Korea, Republic of	Conceptual Design of Nuclear CHP Using Absorption Cycle
5S05	F. Sefidvash	Brazil	Water Cooled FBNR Nuclear Reactor

WEDNESDAY, 28 OCTOBER 2009 (continued)

16:00-18:00 **PARALLEL SESSION 6:**
"Safety Assessment in NPPs "
(M1)

Chairperson: **M. Bakirov, Russia**

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
6S06	M. El-Shanawany	IAEA	Conclusions and Recommendations of the IAEA 2008 International Conference on Topical Issues in Nuclear Safety
6S01	M. Bakirov S. Chubarov I. Frolov J. Gastrock M. Dripke	Russian Federation	Development of Universal Methodology of Specimen Free Nondestructive Inspection (Control) of Mechanical Properties of NPP Equipment Metal in All Stages of Lifetime
6S02	J. Misak F. Peinetti F. Pierro	Czech Republic	Comparison Between International and Slovak Design Safety Requirements on Severe Accidents and Feasibility Analysis of the Safety Enhancement of VVER 440/V213 Plants to Comply with New Safety Requirements
6S03	P. Krishnakumar S. Hajela P.K. Malhotra S.G. Ghadge	India	Safety Assessment and Improvements in Indian NPPs
6S04	J. Riverola M. Corisco	Spain	Experience Feedback of Current LWR on the Design and Operation of Advanced LWR, under the Safety Analysis Point of View
6S05	S. Bozhko G. Gromov S. Sholomitsky G. Balakan	Ukraine	Operating Nuclear Reactors in Ukraine: Enhancement of Safety and Performance

THURSDAY, 29 OCTOBER 2009

09:00 -10:30 **PLENARY SESSION:**
"Safety and Performance Excellence in
Current NPPs"
(Boardroom A)
Chairperson: **B. Shalaby, Canada**

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
13KS	H.M. Hashemian	United States of America / AMS	Application of Advanced Technology to Improve Plant Performance
14KS	R. Rintamaa	Finland / VTT	NULIFE - its Role in Implementing Strategic Research of LTO related to PLIM Issues in Europe
15KS	M. Baron	United States of America / EXELON	Utility Perspective on Future of Water Cooled Reactors

10:30-11:00 Coffee Break

11:00-12:30 **PLENARY SESSION:**
"Advanced Applications of Water Cooled
Reactors"
(Boardroom A)
Chairperson: **B. Shalaby, Canada**

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
16KS	P. Yvon	France / CEA	Hydrogen Production using Water Cooler Reactors
17KS	J. Reyes	United States of America / Oregon State University	Innovative Water Cooled Reactor Concepts – Small and Medium Reactors
18KS	Y. Oka	Japan / University of Tokyo	Research and Development of the Supercritical Water Cooled Reactors

12:30-14:00 Lunch

THURSDAY, 29 OCTOBER 2009 (continued)

14:00 -15:30 **POSTER SESSION AND
TECHNICAL EXHIBITIONS**

15:30-16:00 Coffee Break

16:00-18:00 **PARALLEL SESSION 4-2:**
"Safety and Performance Achievement in
Current NPPs"
(Boardroom A)

Chairperson: **S. Kawamura, Japan**

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
4S06	N. Suezono Y. Motora T. Saito K. Naruse	Japan	Innovative Maintenance Technology for RPV and RIN of Operating Nuclear Plant
4S07	H.H. Over S.P. Barroso F. Gillemot	EC/JRC-IE	IAEA surveillance data administration within Mat-DB
4S08	F. D'Auria O. Mazzantini	Italy	The Best-Estimate Plus Uncertainty (BEPU) Challenge in the Licensing of Current Generation of Reactors
4S09	R. Fótos L. Tóth	Hungary	Risk Concept in Nuclear Industry
4S10	S.-W. Sohn I. Song S. Jeong J. Sohn	Korea, Republic of	Application of the Performance Validation Tool for the Evaluation of NSSS Control System Performance

18:30-20:00 Official Dinner Hosted by
Toshiba/Westinghouse
(Place : Melker Stiftskeller Vienna)

THURSDAY, 29 OCTOBER 2009 (continued)

16:00-18:00 **PARALLEL SESSION 5-2:**
"Safety and Performance Achievement in
Current NPPs"
(Press Room)
Chairperson: **T.R. Kim, Korea**

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
5S06	H. Khartabil K. Yamada T. Schulenberg Y. Bae R.B. Duffey	Canada	Supercritical Water-Cooled Reactor (SCWR) Development through GIF Collaboration
5S07	B.A. Gabaraev Y. Kuznetsov	Russian Federation	Nuclear Co-Generation Desalination Complex with Simplified Boiling Water Reactor VK-300
5S08	P. Dařílek J. Breza R. Zajac V. Nečas	Slovakia	Plutonium Management in Small Nuclear Country
5S09	S. Si	China	Roadmap Design for Thorium-Uranium Breeding Recycle in PWR
5S10	I. C. Bang J.H. Kim	Korea, Republic of	Rod-Type Quench Performance of Nanofluids Towards Developments of Advanced PWR Nanofluids-Engineered Safety Features

18:30-20:00 Official Dinner Hosted by
Toshiba/Westinghouse
(Place : Melker Stiftskeller Vienna)

THURSDAY, 29 OCTOBER 2009 (continued)

16:00-18:00 **PARALLEL SESSION 7:**
"Instrumentation & Control (I&C)"
(M1)

Chairperson: **O. Glöckler, IAEA**

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
7S01	M. Langle R. Schildheuer	Germany	Upgrading the Reactor Power Control Concept with a Modern Digital Control System
7S02	M. Tadashi N. Oda Y. Goto T. Hayashi	Japan	Qualification of FPGA-Based Safety-Related PRM System
7S03	K.H. Kim S. Baeg S. Kim C. Park S. Yoon S. Lee	Korea, Republic of	Design Feature and Prototype Testing Methodology of DHIC's Nuclear I&C system
7S04	E. Bakhmach O. Siora V. Tokarev S. Reshetytsky V. Kharchenko V. Bezsalyi	Ukraine	FPGA-Based Technology (Systems) for I&C of Existing and Advanced Reactors
7S05	H.M. Hashemian	United States of America	On-line Monitoring and Calibration Techniques in Nuclear Power Plants

18:30-20:00 Official Dinner Hosted by
Toshiba/Westinghouse
(Place : Melker Stiftskeller Vienna)

FRIDAY, 30 OCTOBER 2009

09:00 -10:30 **PANEL DISCUSSION:**
"Role of Water Cooled Reactors in the 21st
Century"
(Boardroom A)
Chairperson: **S. Bilbao y León, IAEA**

Panel B. Guesdon, France / AREVA-NP
Members C. Raetzke, Germany / EON Energy
 D. Saha, India / BARC
 M. Taylor, France / OECD NEA

10:30-11:00 Coffee Break

11:00-12:30 **PARALLEL SESSION 2-3:**
"Nuclear Deployment Challenges and
Solutions—Institutional and Cross Cutting"
(Boardroom A)
Chairperson: **O. Gonzalez-Hernandez, Portugal**

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
2S10	A.T. Mikulski	Poland	The Role of Regulatory Authority in Licensing of the First Nuclear Power Plant
2S11	A. Mardha D. C. Sinaga K. Huda	Indonesia	The Establishment of Regulation for Supporting the Development of the First Nuclear Power Plant in Indonesia
2S12	O. Salhi	France	Human Resources and Training - A Mandatory Gate for Water Cooled Reactors in the 21 st Century

FRIDAY, 30 OCTOBER 2009 (continued)

11:00-12:30 **PARALLEL SESSION 4-3:**
"Safety and Performance Achievement in
Current NPPs"
(Boardroom A)
Chairperson: **K.P. Stratton, Canada**

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
4S11	V. Prunier	France	NULIFE ASSOCIATION: an Opportunity to Face Gen II / Gen III Challenges through Cooperative Research
4S12	A. Cilliers A.S.J. Helberg	South Africa	Model Reference Control & Protection Theory and Implementation for Nuclear Power Plants using Real-time Simulations
4S13	S. Gul M. Khan M. Kamran Chughtai	Pakistan	Technical Support to An Operating PWR vis-à-vis Safety Analysis

FRIDAY, 30 OCTOBER 2009 (continued)

11:00-12:30 **PARALLEL SESSION 5-3:**
"Advanced Technology Application"
(M1)

Chairperson: **E. Shyloski, United States of America**

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
5S11	R. B. Duffey S. Kuran A.I. Miller	Canada	Applications of Nuclear Energy to Oil Sands and Hydrogen Production
5S12	V.N. Belous V.N. Vasina E.V. Yurmanov V. Yurmanov	Russian Federation	Water Chemistry and Corrosion Prevention at Nuclear Plants with Supercritical Water Reactors
5S13	H. A. Lestani P. Florido A. Marino	Argentina	Optimization of CARA Fuel Element with Negative Coolant Void Coefficient

FRIDAY, 30 OCTOBER 2009 (continued)

12:30-14:00 **CLOSING SESSION**
(Boardroom A)

Chairperson: **B. Shalaby, Canada**

Session Summary Presentations:

Sessions 1-1 ~1-2	A. Collings, UK
Sessions 2-1 ~2-3	O. Gonzalez-Hernandez, Portugal
Sessions 3-1 ~3-2	A. Aszodi, Hungary
Sessions 4-1 ~4-3	R. Gasca, Spain
Sessions 5-1 ~5-3	T.R. Kim, Korea
Sessions 6	M. Bakirov, Russia
Sessions 7	O. Glöckler, IAEA

Recommendations and Conclusion

Closing of the Conference
(Boardroom A)

POSTERS

Posters will be on display for the duration of the
Conference

(MOE Hallway)

CURRENT NUCLEAR POWER OUTLOOK – OPPORTUNITIES TO LAUNCH NEW NPP PROGRAMME

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
1P01	I. Ennison M. Dzobo	Ghana	Nuclear Power and Ghana's Future Electricity Generation
1P04	R. Namwong	Thailand	Nuclear Power Project in Thailand
1P05	A. Sudi A. Siti	Indonesia	Economy Aspect for Nuclear Desalination Selection in Muria Peninsula Using 1000 MWe PWR
1P06	A. Zeleke Meshesha	Ethiopia	Infrastructure and Other Considerations to Launch Nuclear Power Programme: The Case of Sub-Sahara African Developing Countries Like Ethiopia
1P07	O. Gonzalez- Hernandez	Portugal	The Future of Nuclear Power in Portugal

NUCLEAR DEPLOYMENT CHALLENGES AND SOLUTIONS – INSTITUTIONAL AND CROSS CUTTING

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
2P01	Y. Zhao	China	Challenges and Opportunities to Launch New Nuclear Power Programmes
2P02	L. C. Longoria J. Palacios G. Alonso	Mexico	Expansion of Nuclear Power in Mexico
2P05	Z. Ilyas D. Sembiring	Indonesia	Regulation and License for NPP in Indonesia
2P06	E.M. Ngotho	Kenya	A Nuclear Power Plant for a Developing Country: The Best Option

POSTERS (continued)**DESIGN AND CONSTRUCTION OF ADVANCED WATER
COOLED REACTORS**

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
3P01	S. K. Chadda	India	Localisation of Manufacturing Capabilities in Setting Up Nuclear Power Plants
3P03	A.E. Sargsian A.S. Grishin	Russian Federation	The Protection of Containers for Fresh and Spent Fuel at External Transportation Operating Modes In and Around a Nuclear Reactor's Portal
3P05	Obaidurrahman K. J.B. Doshi	India	Development of Coupled Dynamics Model for VVER Reactors
3P08	V.R. Ostrovskiy E. Kudryavtsev I. Tutnov	Russian Federation	Method and Result of Experiment for Support of Technical Solutions in the Field of Perfection of a Nuclear Fuel Cycle for Future PWR Reactors
3P09	J. Iqbal S. Ahmad	Pakistan	Improving Safety Provisions of Structural Design of Containment Against External Explosion
3P10	D. Freis	Germany	The Westinghouse AP1000 – An Advanced Passive Plant for A Safe Nuclear Future

POSTERS (continued)**SAFETY AND PERFORMANCE ACHIEVEMENT IN CURRENT NPPS**

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
4P01	S.H. Lee C.Y. Park T.R. Kim J.H. Park	Korea, Republic of	Integrity Evaluation for Elbows Based on TES Collapse Load
4P02	D. Kirilova S. Belousov K. Ilieva	Bulgaria	Extension and Verification of the Cross-Section Library for the VVER-1000 Surveillance Specimen Region
4P03	J. Žďárek J. Bulák P. Vomáčka	Czech Republic	Containment Integrity - Key Role of Tendons
4P04	K. Ilieva	Bulgaria	Need of Reactor Dosimetry Preservation
4P05	P. Raics J. Szabó S. Scheiner J.C. Széles P. Tilky J. Schunk T. Pintér	Hungary	Mobile Nuclear Laboratory for In-situ Measurements in NPPs
4P08	V. Gostilo A. Sokolov V. Kuzmenko A. Nazarenko	Latvia	On-line Gamma Spectrometric Monitoring at the Water Cooled NPPs

POSTERS (continued)**ADVANCED TECHNOLOGY APPLICATION**

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
5P01	L. S. de Carvalho J. M. Oliveira Neto	Brazil	Station Blackout Core Damage Frequency Reduction at LABGENE Reactor - The Contribution of a Natural Convection Residual Heat Removal System
5P02	X. Li	China	R&D of a Chinese SCWR
5P04	D. Ning W. Yao	China	Several Aspects on Materials Problems for SCWR
5P05	K. Khattab	Syria Arab Republic	Generation IV reactor, IRIS
5P07	J.J. Whitlock A.G. Lee	Canada	CANDU: Setting the Standard for Proliferation Resistance of Generation III and III+ Reactors
5P09	W. Yao Y.C. Xie Y.B. He M. Zhang K.F. Zhang D. Ning	China	Typical Technology of Mechanics on Gen-III Passive NPPs and Gen-IV Advanced Supercritical Light Water Reactors
5P10	D. Zhao L. Lu G. Shi	China	Study on Thermal-Hydraulic Characteristics of Supercritical Water Reactor
5P11	Ismail L. P. Hong H. Sekimoto B. Rohman	Indonesia	Optimization of Thorium Fuel Application Through a Symbolistic System Consists of Large FBR and Small Water Cooled Satellite-Reactors

POSTERS (continued)

SAFETY ASSESSMENT IN NPPS

<i>No. of Paper IAEA-CN-164-</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
6P01	V. Řezník I. Krajmer	Slovakia	The Modernization Program, Power Uprate at NPP V2 Jaslovske Bohunice
6P03	R. Kumar	India	Safety and Performance Achievement of Indian Nuclear Power Plant

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International Conference on Fast Reactors and Related Fuel
Cycles: Challenges and Opportunities FR09
7-11 December, Kyoto, Japan

International Conference on Effective Nuclear Regulatory
Systems: Further Enhancing the Global Nuclear Safety and
Security Regime
14-18 December, Cape Town, South Africa

2010

International Conference on Human Resource Development for
Introducing and Expanding Nuclear Power Programmes
14-18 March, Abu Dhabi, UAE

International Conference on Management of Spent Fuel from
Nuclear Power Reactors
31 May - 4 June, Vienna, Austria

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Performance of NPPs and Fuel Cycle Facilities
21-25 June, Vienna, Austria

23rd IAEA Fusion Energy Conference
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International Conference on Challenges Faced by Technical and
Scientific Support Organizations (TSO) in Enhancing Nuclear
Safety and Security
25-29 October, Tokyo, Japan

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