### **Programme Committee:**

P. Anzieu, CEA, France H. Böck. AtomInstitut Austria L.W. Deitrich, ANL, USA I.C. Lim. KAERI, Korea, Rep. of J. Lolich, CNEA, Argentina I. Soufi, CNESTEN, Morocco F. Wijtsma, NRG, Netherlands H. Abou Yehia, NSNI, IAEA P. Adelfang, NEFW, IAEA D. Ridikas, NAPC, IAEA

#### IAEA Secretariat:

Scientific Secretaries: H. Abou Yehia

P. Adelfang

D. Ridikas (lead scientific secretary)

Conference Organizer: M Neuhold

K. Morrison

Administrative Support: N. Peld

Local Conference

Coordinator:

A. Boufragech

CNESTEN, Morocco,

#### Location of the Conference:

Golden Tulip Hotel Farah Place Sidi Makhlouf Rabat 10000 Morocco

Tel.: (+212) 37 23 74 00 Fax: (+212) 37 72 21 55

Working Language: English

Resolutions: No resolutions may be submitted for

consideration on any subject; no votes

will be taken.

## **TIMETABLE**

Sunday, 13 November 2011				
16:00–18:00 18:00–19:30	Registration Welcome Cocktail	Golden Tulip Hotel Golden Tulip Hotel		
Monday, 14 N	lovember 2011			
08:00 09:00–09:30	Registration Opening Session	Golden Tulip Hotel		
09:30-10:00 10:00-10:30 10:30-12:00 12:00-13:30 13:30-15:10 15:10-16:00 16:00-17:40	Session A Poster Session I & Session A Lunch Break Session A Poster Session I & Session A	Utilization & Applications Coffee/Tea Break Utilization & Applications Utilization & Applications Coffee/Tea Break Utilization & Applications		
Tuesday, 15	November 2011			
08:00-09:00	Session A	Utilization & Applications		
09:00-10:00 10:00-10:30 10:30-12:00 12:00-13:30 13:30-15:10 15:10-16:00 16:00-17:40	Session B Poster Session I & Session B Lunch Break Session B Poster Session I & Session B	Operation & Maintenance Coffee/Tea Break Operation & Maintenance Operation & Maintenance Coffee/Tea Break Operation & Maintenance		
•	16 November 2011			
08:00–10:00	Session C	New Research Reactor Projects		
10:00–10:30 10:30–12:00	Coffee/Tea Break Session C	New Research Reactor Projects		
12:00–13:30	Lunch Break	. rejudio		
13:30–15:10	Session E	Spent Fuel, Waste & Decommissioning		
15:10–15:40	Coffee/Tea Break	2 000g		
15:40–17:40	Session F	Research Reactor Designers & Providers		
19:00	Conference Dinner	Venue TBD		

## Thursday, 17 November 2011

08:00-10:00	Session D	Safety of Research Reactors
10:00-10:30	Poster Session II &	Coffee/Tea Break
10:30-12:00	Session D	Safety of Research Reactors
12:00-13:30	Lunch Break	
13:30-15:10	Session D	Safety of Research Reactors
15:10-16:00	Poster Session II &	Coffee/Tea Break
16:00–17:40	Session D	Safety of Research Reactors

## Friday, 18 November 2011

08:00–10:00	Session D	Safety of Research Reactors
10:00–10:30	Poster Session II &	Coffee/Tea Break
10:30–12:30	Panel Session	Summary Discussion, Conclusions & Recommendations
12:30–13:00	Closing Session	
13:00–18:00	Technical Tour to CNESTEN & TRIGA RR (Departure from Golden Tulip Hotel; lunch offered by CNESTEN on site and followed by technical tour)	

Commercial exhibits will be shown in the common area of the conference at Golden Tulip Hotel from Monday to Friday, 14–18 November 2011.

# **MONDAY, 14 NOVEMBER 2011**

Registration and distribution of Conference material 08:00

**OPENING SESSION** 09:00-09:30

**Welcome and Opening Address** 

**SESSION A:** 09:30-10:00

**Utilization and Applications** 

J. Lolich, Argentina D. Ridikas, IAEA Chairpersons:

No. of Paper IAEA-CN-188-	Name	Designating Member State/Organization	Title of Paper
A01 (invited)	K. El Mediouri	Morocco	The Role of a RR for Nuclear Power Programme in Morocco and Regional Aspects
10:00–10:30	Coffee/Tea Break Poster Session I	(see page 24):	<ul><li>(A) Utilization and Applications</li><li>(B) Operation and Maintenance</li><li>(C) New Research Reactor Projects</li><li>(F) Research Reactor Designers and Providers</li></ul>
10:30–12:00	SESSION A: Utilization and Ap	oplications, con't	
A02 (keynote)	D. Ridikas	IAEA	New Opportunities for Enhanced RR Utilization through Networks and Coalitions
A03 (invited)	A. Hawari	USA	Importance of Research Reactors in Human Capacity Building in Nuclear Science and Engineering
A04	L. Sklenka R. Baranyai H. Böck V. Broz J. Jaroszewicz J. Rataj L. Snoj M. Villa	Czech Republic	EERRI Coalition as a Platform for Close Cooperation – An Enhanced Utilization in Central and Eastern Europe
A05	F. Foulon B. Lescop X. Wohleber	France	Development of Education and Training Programs Using ISIS Reactor
12:00–13:30	Lunch Break		

13:30-15:10	Session A:
	Utilization and Applications con't

	•		
No. of Paper IAEA-CN-188-	Name	Designating Member State/Organization	Title of Paper
A06 (invited)	N. Metoki	Japan	Overview of Research and Applications with Neutron Beams: Present Status and Future Activities in Japan
A07	S. Kennedy	Australia	Establishment of the Neutron Beam Research Facility at the OPAL Research Reactor
A08	V. Mazzochi Y. Mascarenhas J. Mestnik-Filho C. Parente	Brazil	Neutron Diffraction Patterns Measured with a High-Resolution Powder Diffractometer Installed on a Low-Flux Reactor
A09	C.H. Lee S.J. Cho Y.G. Cho K.H. Lee	Korea, Rep. of	Cold Neutron Research Facility and Its Utilization at HANARO
A10	F. de Beer C. Franklyn G. Nothnagel A. Venter	South Africa	Utilization and Upgrading of the Neutron Beam Lines Facilities at the SAFARI-1 Nuclear Research Reactor in South Africa
15:10–16:00	Coffee/Tea Break Poster Session I (see page 24)		<ul> <li>(A) Utilization and Applications</li> <li>(B) Operation and Maintenance</li> <li>(C) New Research Reactor Projects</li> <li>(F) Research Reactor Designers and Providers</li> </ul>
16:00-17:40	SESSION A: Utilization and App	olications, con't	
A11	<b>S. Takriti</b> D. Mosbah	Arab Atomic Energy Agency (AAEA)	The Research Reactors in Arab Countries: Their Characteristics and Utilization
A12	L. Rosta	Hungary	Multipurpose Utilisation of a Medium Flux Research Reactor – Benefit for the Society
A13	<b>Z. Yin</b> X. Chen T. Ma	China	Management and Development of Research Reactors in Tsinghua University
A14	<b>S.A. Jonah</b> A.S. Ajuji G.I. Balogun Y.V. Ibrahim	Nigeria	The Impact of HEU to LEU Conversion on Utilization of NIRR-1
A15	<b>A.L. Petelin</b> A.L. Izhutov M.N. Svyatkin	Russian Federation	Use of Multifunctional Research Reactor Complex at SSC RIAR

# **TUESDAY, 15 NOVEMBER 2011**

08:00-09:00

SESSION A: Utilization and Applications, con't

No. of Paper IAEA-CN-188-	Name	Designating Member State/Organization	Title of Paper
A16 (invited)	N. Ramamoorthy	India	Production and Supplies of 99Mo: Lessons Learnt and New Options within Research Reactors and Neutron Sources Community
A17	P. Bode	Netherlands	The IAEA Collaborating Centre for Neutron Activation Based Methodologies of Research Reactors
A18	S. Landsberger	USA	Twenty Five Years of Neutron Activation Analysis: A Personal Perspective on Utilization of the Techniques
09:00-10:00	SESSION B: Operation and Mai	ntenance	
Chairpersons:	I.C Lim, Korea, Re F. Wijtsma, Nether		
B01 (keynote)	P. Adelfang	IAEA	IAEA's Cross Cutting Activities on Research Reactors
B02 (invited)	D. Cox	Canada	NRU Vessel Repair Project
10:00–10:30	Coffee/Tea break Poster Session I (see page 24)		<ul><li>(A) Utilization and Applications</li><li>(B) Operation and Maintenance</li><li>(C) New Research Reactor Projects</li><li>(F) Research Reactor Designers and Providers</li></ul>
10:30–12:00	SESSION B: Operation and Mai	ntenance, con't	
B03 (invited)	J.A. Karim Z. Masood	Malaysia	Neutronic Approach for the Feasibility Study of PUSPATI TRIGA Reactor Power Upgrading
B04 (invited)	<b>D.L. Tillwick</b> A.J. D'Arcy J.F. du Bruyn	South Africa	Operation and Maintenance Experience at SAFARI-I Research Reactor in South Africa
B05	H. Kiavitskaya I. Bolshinski V. Bournos I. Edchik Y. Fokov Y. Gohar A. Kulikovskaya S. Mazanik C. Routkovskaya S. Sadovich	Belarus	YALINA-Booster Subcritical Assembly: From HEU to LEU
B06	Y.P. Mahlers V.M. Makarovsky I.A. Maliuk O.F. Rudyk	Ukraine	Full-Core Conversion of the WWR-M Research Reactor in Ukraine to the Use of LEU Fuel

12:00-13:30	Lunch break		
13:30–15:10	Session B: Operation and Mai	ntenance, con't	
No. of Paper IAEA-CN-188-	Name	Designating Member State/Organization	Title of Paper
B07	M.A. Zulqarnain M.K. Alam M.I. Ali A.Z. Chowdhury M.M. Haque M.A. Hossain M.S. Islam A. Kalam I. Kamal M.R.I. Khondokerd M.M. Mahmud M.Z. Miah D. Paul M.M. Rahman M.A. Sarder B.C. Sutrodhar M.S. Uddin S. M. Yunus	Bangladesh	Corrosion Induced Leakage in the Radial Beam Port of the 3 MW TRIGA Mark-II Research Reactor of Bangladesh
B08	R. Himawan Sriyono Suwoto A. Triyadi Y. Yusi Eko	Indonesia	Degradation Monitoring of G.A. Siwabessy Research Reactor's Secondary Cooling Pipe
B09	<b>A.A.R. Wetzels</b> C.N.J. Kaaijk	Netherlands	Renewal of HOR Nuclear Instrumentation: From Analog to Digital System
B10	<b>M. Ciocanescu</b> C. Paunoiu	Romania	Experience of Ageing Management at 14 MW TRIGA Research Reactor from ICN Pitesti, Romania
B11	<b>A. Vinogradov</b> V. Ananiev Y. Pepyolyshev	Russian Federation	Start-Up of the IBR-2 Fast Pulsed Reactor after Modernization
15:10–16:00	Coffee/Tea break Poster Session I (see page 24)		<ul> <li>(A) Utilization and Applications</li> <li>(B) Operation and Maintenance</li> <li>(C) New Research Reactor Projects</li> <li>(F) Research Reactor Designers and Providers</li> </ul>

16:00–17:40 SESSION B: Operation and Maintenance, con't

No. of Paper IAEA-CN-188-	Name	Designating Member State/Organization	Title of Paper
B12	<b>P.N. Manoharan</b> G. Srinivasan K.V. Suresh Kumar	India	KAMINI Reactor — Fifteen Years of Operating Experience
B13	A.L. Petelin V.N. Fedulin N.G. Gataullin M.N. Svyatkin M.K. Vinogradov	Russian Federation	Analysis of Operating Experience of Russian Research Reactor over a Period of 2001 to 2010
B14	M. Aziz	Egypt	Neutronic Analysis for the Conversion of IAEA 10 MW Research Reactor from HEU to LEU
B15	B. El Bakkari H. Boukhal Y. Boulaich E. Chakir T. El Bardouni O. Meroun B. Nacir	Morocco	The Evolution of the Neutronics Parameters Versus Burnup for the Moroccan TRIGA Research Reactor
B16	P.A. Bellino G. Estryk A. Gomez C. Grant	Argentina	Kinetics Parameters Estimation in a MTR Research and Production Reactor in Subcritical States

# **WEDNESDAY, 16 NOVEMBER 2011**

08:00-10:00 SESSION C:

**New Research Reactor Projects** 

S. O'Kelly, USA E. Bradley, IAEA Chairpersons:

No. of Paper IAEA-CN-188-	Name	Designating Member State/Organization	Title of Paper
C01	A.M. Shokr K. Alldred P. Adelfang D. Ridikas H. Abou Yehia	IAEA	Considerations and Infrastructure Milestones for a Research Reactor Project
C02 (invited)	<b>H. Chen</b> G. Ke C. Wu	China	Overview on China New RRs
C03 (invited)	<b>A. Hawari</b> S. Malkawi	Jordan	Needs and Present Status of the First Multipurpose Nuclear Facilities in Jordan
C04	<b>H. Blaumann</b> F. Brollo J. Longhino F. Sánchez A. Vertullo	Argentina	RA-10: A New Argentinian Multipurpose Research Reactor
C05	<b>G. Bignan</b> X. Bravo P. Lemoine	France	The Jules Horowitz Reactor: A New European MTR (Material Testing Reactor) Open to International Collaboration—Updated Description and Focus on the Modern Safety Approach.
10:00–10:30	Coffee/Tea break		
10:30–12:00	Session C: New Research Rea	ctor Projects	
C06 (invited)	J.A. Perrotta I.J. Obadia	Brazil	The RMB Project Status
C07	N. Arkhangelskiy I. Tretiyakov	Russian Federation	Current Status and Future Trends in the Development of Russian Research Reactors
C08	I.C. Lim S.J. Choi J.J. Ha M.S. Kim	Korea, Rep. of	Plan of New Research reactor Construction in Korea
C09	<b>F.J. Wijtsma</b> P.G.T. de Jong N.D. van der Linden	Netherlands	Safe Management and Effective Utilization of the PALLAS RR
C10	<b>K.C. Nguyen</b> T.N. Huynh V. Levinh B.V. Luong	Vietnam	The Role of a Research Reactor in the National Nuclear Energy Programme in Vietnam: Present and Future
12:00–13:30	Lunch break		

13:30-15:10 SESSION E:

Spent Fuel, Waste and Decommissioning

Chairpersons: P. Anzieu, France P. Adelfang, IAEA

No. of Paper IAEA-CN-188-	Name	Designating Member State/Organization	Title of Paper
E01 (invited)	E. Gouhier	France	Overview of Research Reactor Decommissioning Activities in France
E02 (invited)	O. Šotić	Serbia	Nuclear Fuel Repatriation from the Republic of Serbia
E03	<b>S. Fabbri</b> H. Blaumann G. Vega R. Versaci	Argentina	Relocation of a Research Reactor
E04	A. Grishin	Russian Federation	Russian Research Reactor Fuel Return Program
E05	<b>J. Rogans-Riblas</b> C. Landers	USA	Research and Test Reactors Conversion to LEU: Technical and Programmatic Progress
15:10-15:40	Coffee/Tea break		
15:40-17:40	SESSION F: Research Reactor D	Designers & Providers	
Chairpersons:	A. Boufraqech, Mor P. Adelfang, IAEA	оссо	
F01	J.P. Ordoñez	Argentina	INVAP Experience in Design and Construction of Research Reactors
F02	Y. Li	China	Design and Construct of In-Hospital Neutron Irradiator

Z.X. Gao T. Liu D. Peng X.B. Wu P. Xia T. Zhang T. Zhou F03 B. Vidal France Research Reactor Business at AREVA TA: Status and F. Chopard Perspectives C. Pascal M. Vallin F04 J. Ha Research Reactor: A Powerhouse of Nuclear Technology in Korea, Rep. of I.C. Lim Korea Russian Federation The Research Reactors of New Generation with LEU Fuel F05 S.V. Osipovich R.P. Kuatbekov V.A. Lukichev F06 A. Veca USA Multipurpose Research Facility Using a 10 MW TRIGA Reactor J. Bolin 19:00 **Conference Dinner** 

# **THURSDAY, 17 NOVEMBER 2011**

08:00-10:00 S

SESSION D:

Safety of Research Reactors

Chairpersons: L

L.W. Deitrich, USA A.M. Shokr, IAEA

No. of Paper IAEA-CN-188-	Name	Designating Member State/Organization	Title of Paper
D01 (keynote)	H. Abou Yehia	IAEA	IAEA Sub-Programme on Research Reactor Safety
D02 (invited)	G.J. Storr	Australia	Initiatives Supporting Research Reactor Safety in the Asia-Pacific Region
D03 (invited)	<b>A. Doval</b> C. Mazufri	Argentina	Implications of the Fukushima Accident for Research Reactor Safety
D04 (invited)	<b>A. Sapozhnikov</b> S. Morozov	Russian Federation	Nuclear Safety Culture State Trough Lessons Learned from Licensing, Periodic Safety Review and Relicensing of Activities at Nuclear Research Facilities in Russian Federation
10:00-10:30	Coffee/Tea Break Poster Session II	(see page 30)	(D) Safety of Research Reactors (E) Spent Fuel, Waste and Decommissioning
10:30-12:00	SESSION D: Safety of Researc	h Reactors, con't	
D05	V. Garea	Argentina	Human Factors in Design and Preliminary Safety Assessment of Research Reactors
D06	R. Le Ruyet T. Bourgois E. Fraillon L. Giot	France	From Science to Safety: The Long Way to Risk Management Assessment in Nuclear Industry
D07	<b>C.G. Kardakhar</b> S. Duraisamy D.K. Shukla	India	Enhancing Safety Performance of Research Reactors at Trombay
D08	<b>D. Li</b> W. Yulin	China	Technical Research on Safety Management and Effective Application of China Advanced Research Reactor
12:00-13:30	Lunch Break		

13:30–15:10 SESSION D: Safety of Research Reactors, con't

B. Fischer  D10 A. Golab Poland Safe Management of Research Re Emphasis on Safety Culture Enhand Canadian Experience in Application Safety Assessment of the Research Paractices for Me French Research Reactors Project Company of Poster Session II (see page 30)  Coffee/Tea Break Poster Session II (see page 30)  Coffee/Tea Break Poster Session II (see page 30)  D. Poliakov Russian Federation Some Aspects of Research Reactor in Russia  D14 A. Jraut Morocco Approaches Developed to Build TS and to Assess the Safety of Experit Reactor Reactor Reactor Reactor Reactor Reactor Reactor Reactor Reactor Approaches Developed to Build TS and to Assess the Safety of Experit Reactor Approaches Developed to Build TS and to Assess the Safety of Experit Reactor Reacto		•				
B. Fischer  D10  A. Golab  Poland  Safe Management of Research Re Emphasis on Safety Culture Enhand  D11  J.E. Kowalski  Canada  Canadian Experience in Application Safety Assessment of the Research Practices for Me French Research Reactors Project  D12  C. Pascal  France  Graded Approach Practices for Me French Research Reactors Project  D15:10–16:00  Coffee/Tea Break Poster Session II  (see page 30)  (D) Safety of Research Reactors Project  D15:10–17:40  SESSION D: Safety of Research Reactors, con't  D13  D. Poliakov  Russian Federation  Some Aspects of Research Reactor in Russia  D14  A. Jraut  T. Bourgois A. Elmorabiti J. Gallet I. Soufi  D15  H.E. Seals  South Africa  The Evaluation of the Selected On-Nuclear Facility on a Multi-facility S  D16  J.S. Wu S.T. Hong I.C. Lim		Name		Title of Paper		
Emphasis on Safety Culture Enhand  D11	D09		Germany	Safe Operation of Research Reactors in Germany		
D12 C. Pascal France Graded Approach Practices for Me French Research Reactors Project  15:10–16:00 Coffee/Tea Break Poster Session II (see page 30) (D) Safety of Research Reactor (E) Spent Fuel, Waste and Deco (E) Sp	D10	A. Golab	Poland	Safe Management of Research Reactor MARIA with Special Emphasis on Safety Culture Enhancement Process		
Trench Research Reactors Project  15:10–16:00 Coffee/Tea Break Poster Session II (see page 30) (D) Safety of Research Reactor (E) Spent Fuel, Waste and Decc (E) Spent Fuel, Waste (E) Spe	D11	J.E. Kowalski	Canada	Canadian Experience in Application of Graded Approach for Safety Assessment of the Research Reactors		
Poster Session II (see page 30)  (D) Safety of Research Reactor (E) Spent Fuel, Waste and Decord (E	D12	C. Pascal	France	Graded Approach Practices for Mechanical Components of French Research Reactors Projects		
Safety of Research Reactors, con't  D. Poliakov Russian Federation Some Aspects of Research Reactor in Russia  D. A. Jraut T. Bourgois A. Elmorabiti J. Gallet I. Soufi  D. Poliakov Russian Federation Approaches Developed to Build TS and to Assess the Safety of Experie Reactor  The Evaluation of the Selected On-Nuclear Facility on a Multi-facility S  D. J.S. Wu S.T. Hong I.C. Lim  Norocco Approaches Developed to Build TS and to Assess the Safety of Experie Reactor  Approaches Developed to Build TS  and to Assess the Safety of Experie Reactor  Approaches Developed to Build TS  and to Assess the Safety of Experie Reactor  Heactor  The Evaluation of the Selected On-Nuclear Facility on a Multi-facility S  D. Hand Communication of the Selected On-Nuclear Facility on a Multi-facility S	15:10–16:00		(see page 30)	(D) Safety of Research Reactors (E) Spent Fuel, Waste and Decommissioning		
D14  A. Jraut T. Bourgois A. Elmorabiti J. Gallet I. Soufi  D15  H.E. Seals  South Africa  Korea, Rep. of  In Russia  Approaches Developed to Build TS and to Assess the Safety of Experimant Reactor  The Evaluation of the Selected On-Nuclear Facility on a Multi-facility S  HANARO Safety Performance India  S.T. Hong I.C. Lim	16:00–17:40					
T. Bourgois A. Elmorabiti J. Gallet I. Soufi  D15  H.E. Seals  South Africa  The Evaluation of the Selected On-Nuclear Facility on a Multi-facility S  D16  J.S. Wu Korea, Rep. of HANARO Safety Performance India S.T. Hong I.C. Lim	D13	D. Poliakov	Russian Federation	Some Aspects of Research Reactor Nuclear Safety Regulation in Russia		
Nuclear Facility on a Multi-facility S  D16  J.S. Wu Korea, Rep. of HANARO Safety Performance India S.T. Hong I.C. Lim	D14	T. Bourgois A. Elmorabiti J. Gallet	Morocco	Approaches Developed to Build TSO Capabilities in Morocco and to Assess the Safety of Experiments in its TRIGA Research Reactor		
S.T. Hong I.C. Lim	D15	H.E. Seals	South Africa	The Evaluation of the Selected On-site Location for a New Nuclear Facility on a Multi-facility Site		
	D16	S.T. Hong I.C. Lim	Korea, Rep. of	HANARO Safety Performance Indicators		
D17 J.L. Lachaume France The NEA Safety of Research Read (SORRTG)	D17	_	France	The NEA Safety of Research Reactor Scoping Task Group (SORRTG)		

# FRIDAY, 18 NOVEMBER 2011

08:00-10:00 SESSION D:

Safety of Research Reactors, con't

I. Soufi, Morocco H. Abou Yehia, IAEA Chairpersons:

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No. of Paper IAEA–CN–188-	Name	Designating Member State/Organization	Title of Paper		
D18 (invited)	J. Repussard	France	Safety of Research Reactors: Views of the NEA Committee on the Safety of Nuclear Installations (CSNI)		
D19	A. Hainoun	Syria	Towards Standard Methodology in the Safety Analysis of Research Reactors		
D20	M. Boyard L. Chabert L. Lamoine G. Miras	France	Practices for Neutronic Design of Research Reactors: Safety and Performances		
D21	<b>Y. Chegrani</b> L. Heulers V. Tiberi	France	Safety Approach of BORAX Type Accidents in French Research Reactors		
D22	<b>F. Gupta</b> M. Auzas	France	Approach Implemented for the Assessment of Periodic Safety Reviews on French Research Reactors		
D23	<b>F. Joppen</b> E. Koonen S. van Dijck	Belgium	Periodic Safety Review of the BR2 Reactor		
10:00–10:30	Coffee/Tea Break Poster Session II (see page 30)		(D) Safety of Research Reactors (E) Spent Fuel, Waste and Decommissioning		
10:30-12:30	PANEL SESSION				
Chairpersons:	N. Ramamoorthy, India K. El Mediouri, Morocco				
	Summary Discussion, Conclusions and Recommendations				
12:30–13:00	CLOSING SESSI	ON			
13:00–18:00	TECHNICAL TOUR				
		f CNESTEN facilities and ling lunch at CNESTEN			

## **POSTER SESSION I**

Topics covered include:

- (A) Utilization and Applications
  (B) Operation and Maintenance
- (C) New Research Reactor Projects
  (F) Research Reactor Designers & **Providers**

## **MONDAY AND TUESDAY** 14-15 NOVEMBER 2011

## Showing at 10:00-10:30 and 15:10-16:00

No. of Poster IAEA–CN–188-	Name	Designating Member State/Organization	Title of Poster
A19	A. Leal D. Campolina Z. Revay	Brazil	Feasibility of the Prompt Gamma Activation Analysis Facility at TRIGA IPR-R1 reactor in Brazil
A20	P. Mikula	Czech Republic	Effective Utilisation of Medium Power Research Reactor in Řež in Basic, Interdisciplinary and Applied Research
A21	<b>J. Rataj</b> L. Reisner L. Sklenka	Czech Republic	Experimental Studio – New Data Acquisition System for Extended Education and Training at VR-1 Reactor
A22	R. Cameron C. Westmacott	OECD	OECD Policy Approach to Enhance the Security of Supply of Molybdenum-99
A23	<b>C. Pascal</b> V. Allais M. Malara	France	From Nuclear Physics to Training: The Example of AZUR
A24	<b>S. Martin</b> G. Bignan	France	Sustaining Material Testing Capacity in France: From OSIRIS to JHR
A25	T. Shikama T. Hatakeyama Y. Nagai M. Narui A. Nishimura T. Toyama M. Yamazaki	Japan	Role of the Oarai Branch, IMR, Tohoku University in Bridging between Research Reactors and Their Users Widespread in Academic Sectors in Japan
A26	E. Ngotho	Kenya	Research Reactors for Developing Nations; Issues of Infrastructure and Security
A27	<b>S.I. Wu</b> Y.K. Kim	Korea, Rep. of	Installation of Cold Neutron Source at HANARO
A28	H. Bounouira H. Ait Bouh F. Benyaïch M. Bounakhla K. Embarch D. O'Kelly M. Zghaid	Morocco	Instrumental Neutron Activation Analysis of Suspended Particulate Matter (SPM) PM-10 and PM-2.5 in Kenitra and Meknes Cities

No. of Poster IAEA-CN-188-	Name	Designating Member State/Organization	Title of Poster
A29	<b>K. Embarch</b> H. Amsil H. Bounouira M. Bounakhla	Morocco	Validation of NAA Comparative Method at CNESTEN's Nuclear Research Center by Analysis of Different Certified Reference Materials
A30	<b>M. Wasim</b> M. Arif N. Khalid N. Lodhi	Pakistan	Characterization of Various Types of Alloys by k0-Neutron Activation Analysis
A31	O. Kochnov V. Pozdeyev	Russian Federation	Prospects for the Development of 99Mo Production Consistent with WWR-c Reactor Modernization at the Branch of FSUE "Karpov Institute of Physical Chemistry"
A32	<b>B. Smodiš</b> L. Snoj	Slovenia	Utilization and Application of the Slovenian TRIGA Reactor
A33	S. Landsberger S. Alexander G. Ban V. Lott D. Tamalis T. Tipping	USA	Gateway to Experimental Nuclear Engineering for Undergraduate Students: Opportunities in Neutron Activation Analysis for Local, Regional and International Students
B17	A. Ameur M. Oukil M. Rezig B. Saim R. Samoun	Algeria	Nur Reactor Ageing Management
B18	<b>M. Boufenar</b> S. Rechak M. Rezig	Algeria	An Enhanced Technique for Reactor Coolant Pump Abnormality Monitoring Using Continuous Wavelet Transform Based Sparse Code Shrinkage De-Noising Algorithm
B19	R. Souza A. Mesquita	Brazil	Neutronic Tests in the IPR-R1 TRIGA Reactor
B20	I. Yusuf B. Dewu I. Mansir	Nigeria	Maintenance as a Tool for the Enhancement of Safety in the Operation of NIRR-1
B21	R. Abd Alaziz H. Abou-Shady A. Esmat	Sudan	Optimization of Material Test Research Reactor Core for Isotope Production
C11	C. Lecot D. Hergenreder	Argentina	Successful Verification of Innovative Challenges in Research Reactor Design
C12	<b>S. Sikorin</b> P. Ananich V. Kazazyan	Belarus	Possibility of the Design of a High Flux Pebble Bed Research Reactor with Small Fuel Spheres

No. of Poster IAEA-CN-188-	Name	Designating Member State/Organization	Title of Poster
C13	Y. Wu Y. Bai H. Chen Y. Chen Z. Chen M. He Q. Huang J. Jiang M. Sheng W. Wang X. Yao L. Zhu J. Zou	China	Overview of PbBi–cooled Rector Development and ADS Program in China
C14	R. Kuatbekov Y. Cherepnin V. Lukichev	Russian Federation	Fuel Enrichment Reduction: Status and Prospects
F07	N. De Lorenzo C. Lecot	Argentina	INVAP's integral approach Design and Logistic issues

## **POSTER SESSION II**

Topics covered include:

- (D) Safety of Research Reactors
  (E) Spent Fuel, Waste and Decommissioning

### THURSDAY AND FRIDAY 17-18 NOVEMBER 2011

# Showing at 10:00–10:30 and 15:10–16:00 (Only at 10:00-10:30 on Friday)

No. of Poster IAEA–CN–188-	Name	Designating Member State/Organization	Title of Poster
D24	<b>W. Titouche</b> B. Meftah T. Zidi	Algeria	Strong Absorber Nuclear Data for Diffusion Codes Calculations: Control Rod Worth
D25	D. Palma A. Martinez A. Mesquita R. Souza	Brazil	Real-Time Monitoring of Power and Neutron Capture Cross Section in Nuclear Research Reactor
D26	<b>L. Reisner</b> M. Kochova	Czech Republic	Neutron Instrumentation and Safety Elements for Research and Experimental Nuclear Reactor LVR-15
D27	F. Cochemé	France	Use of the Thermalhydraulics Code CATHARE for Jules Horowitz Reactor Safety Assessment
D28	P. Durande-Ayme	France	Safety and Reliability Improvements in OSIRIS
D29	D. Louvat	France	Training and Tutoring of Professionals in Nuclear Safety, Nuclear Security and Radiation Protection
D30	X. Masson J.A. Streicher	France	Simulators: Towards Full Engineering Cycle Support for Research Reactor Projects
D31	<b>J. Vieuble</b> C. Dormant P. Perdigieur	France	Oversight of Research Reactors in the Southeast of France: ASN Regulatory Experience
D32	I. Stamatelatos S. Chatzidakis A. Ikonomopoulos D. Kontogeorgakos E. Maragos I. Papazoglou A. Savidou F. Tzika S. Valakis	Greece	The Greek Research Reactor Refurbishment Project: A Synopsis
D33	I. Stamatelatos N. Catsaros D. Kontogeorgakos B.C. Lee S.Y. Oh P. Savva C.G. Seo M. Varvayanni	Greece	Neutronic Calculations for the new GRR-1 LEU Fueled Core

No. of Poster IAEA-CN-188-	Name	Designating Member State/Organization	Title of Poster
D34	<b>R. Szijártó</b> A. Aszódi B. Yamaji	Hungary	Experimental Investigation and CFD Modelling of Natural Circulation around a Vertical Heated Rod
D35	<b>Syarip</b> T. Sutondo P. Wahyono	Indonesia	Experience on the Implementation of INSARR Recommendations on Seismic Analysis and External Events Assessment of Kartini Research Reactor
D36	R. Fabián Ortega	Mexico	TRIGA Mark III Reactor: Radiological Regulatory Experience
D37	<b>A. El Morabiti</b> A. Jraut	Morocco	Modelling of the TRIGA Research Reactor by Using MCNP Code
D38	A. Jraut A. Bachir A. Chtata A. Elmorabiti I. Soufi	Morocco	Thermal Hydraulic Analysis of the Steady State Operation of TRIGA Mark II RR
D39	<b>A. Jraut</b> A. Elmorabiti	Morocco	Radiological Safety Analysis of Accident Conditions for the CENM TRIGA Mark II Research Reactor
D40	A. Safonchik	Russian Federation	The Radiation Monitoring System of the Research Reactor PIK under Construction
D41	<b>M. Belal</b> W. Strydom	South Africa	The Status of the Beryllium Reflector in the SAFARI-1 Research Reactor
E06	S. Sikorin I. Bolshinsky I. Daragan Y. Gohar T. Hryharovich S. Mandzik S. Polazau J. Thomas S. Tukhvatulin	Belarus	The Shipment of Russian-Origin Highly Enriched Uranium Research Reactor Spent and Fresh Nuclear Fuel from Belarus and Delivery of Fresh Low Enriched Nuclear Fuel to Belarus
E07	K. Krezhov	Bulgaria	The Research Reactor IRT-Sofia: 50 Years after First Criticality
E08	<b>V. Blideanu</b> A. Van Lauwe	France	Activation Studies and Waste Characterization Using Monte Carlo Transport Codes
E09	I. Stamatelatos J. Feinhals A. Savidou	Greece	Clearance or Disposal? Management of Contaminated Resins
E10	<b>G. Sunaryo</b> Sriyono	Indonesia	Spent Fuel Storage Corrosion Management
E11	D. Wisnubroto	Indonesia	Strategy on the Spent Nuclear Fuel Management in Indonesia

No. of Poster IAEA-CN-188-	Name	Designating Member State/Organization	Title of Poster
E12	C. Dragolici V. Copaciu M. Dragusin A. Zorliu	Romania	Romanian Spent Nuclear Fuel Repatriation
E13	Y. Zverkov A. Drozdov V. Evstigneev S. Semenov A. Shisha	Russian Federation	Preparing and Removal of Spent Nuclear Fuel from Research Reactors of National Research Centre "Kurchatov Institute" for Reprocessing

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IAEA-TECDOC-1659	Research Reactor Application for Materials under High Neutron Fluence	2011	NP-T-5.4	Optimization of Research Reactor Availability and Reliability: Recommended Practices	2008
NP-T-5.2	Good Practices for Water Quality Management in Research Reactors and Spent Fuel Storage Facilities	2011	IAEA-TECDOC-463	Decommissioning of Research Reactors and Other Small Facilities by Making	2008
NG-T-4.3	Cost Aspects of the Research Reactor Fuel Cycle	2010		Optimal Use of Available Resources	
SSG-10	Ageing Management for Research Reactors	2010	Safety Report 55	Safety Analysis for Research Reactors	2008
IAEA-TECDOC-1637	Corrosion of Research Reactor Aluminium Clad Spent Fuel in Water	2010	NS-G-4.5	The Operating Organization and the Recruitment, Training and Qualification of Personnel for Research Reactors	2008
IAEA brochure 10- 43091	Research Reactors: Purpose and Future	2010	NS-G-4.4	Operational Limits and Conditions and Operating	2008
IAEA-TECDOC-1632	Experience of Shipping Russian-origin Research	2009		Procedures for Research Reactors	
	Reactor Spent Fuel to the Russian Federation		NS-G-4.3	Core Management and Fuel Handling for Research	2008
IAEA-TECDOC-1625	Research Reactor Modernization and Refurbishment	2009	NS-G-4.2	Reactors  Maintenance, Periodic Testing and Inspection of Research	2007
IAEA-TECDOC-1593	Return of Research Reactor Spent Fuel to the Country of Origin: Requirements for Technical and Administrative	2009		Reactors	
			NS-G-4.1	Commissioning of Research Reactors	2006
	Preparations and National Experiences			Code of Conduct on the Safety of Research Reactors	2006
NS-G-4.6	Radiation Protection and Radioactive Waste Management in the Design and Operation of Research Reactors	2009			
NF-T-5.2	Good Practices for Qualification of High Density Low Enriched Uranium Research Reactor Fuels	2009			
Technical Reports 455	Utilization Related Design Features of Research Reactors: A Compendium	2009			

# FORTHCOMING SCIENTIFIC MEETINGS SCHEDULED BY THE IAEA

#### 2012

3rd International Conference on NPP Life Management (PLIM) for Long Term Operations (LTO) 14–18 May, Salt Lake City, USA

13th International Symposium on Biological and Environmental Reference Materials (BERM 13) 25–29 June, Vienna, Austria

International Symposium on Managing Soils for Food Security and Climate Change Adaption and Mitigation 23–26 July, Vienna, Austria

Scientific Forum 18-19 September, Vienna, Austria

24th Fusion Energy Conference 8–12 October, San Diego, USA

International Conference on Radiation Protection in Medicine — Setting the Scene for the Next Decade 3–7 December, Bonn, Germany

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