

**RERTR-2007 International Meeting on Reduced Enrichment for Research and Test Reactors**  
Prague, Czech Republic, September 23 - 27, 2007

**PROGRAM**

Sunday				
Registration 3:00 p.m.				
Reception 7:30 - 10:00 p.m.				
Session	Session Title	Time	Paper Title	Authors
<b>Monday Meeting Room: Prague Ballroom</b>				
	<b>Welcome to Czech Republic</b>	<b>8:30 a.m.</b>	Welcome to Czech Republic	Ms. D. Drabova, State Office of Nuclear Safety Professor L. Musilek, Vice-Rector of CTU
<b>1</b>	<b>Opening Programmatic Remarks</b> <i>Chair: N. Nelson-Jean</i>		1 Opening Remarks - United States	N. Miller
			2 Opening Remarks - IAEA	H. Forsström
			3 Overview of NNSA Non-Proliferation Programs	K. Baker
			4 Global Initiative to Combat Nuclear Terrorism	A. Grant
<b>2</b>	<b>HEU Minimization and Conversion Programs</b> <i>Co-Chairs: P. Staples, H. Forsström</i>	<b>10:00 a.m.</b>	1 GTRI Program Overview	A. Bieniawski
			2 International Atomic Energy Agency Support of Research Reactor Highly Enriched Uranium to Low Enriched Uranium Fuel Conversion Projects	E. Bradley, P. Adelfang, I. Goldman
			3 Measuring Progress on HEU Minimization - The Need for Acceleration and Addressing "Out-of-Scope" Activities	O. Reistadt, S. Hustveit, M. Mærli
<b>Coffee Break and Refreshments</b>				
<b>2 Continued</b>	<b>HEU Minimization and Conversion Programs</b> <i>Co-Chairs: P. Staples, H. Forsström</i>	<b>11:00 a.m.</b>	4 Developing HEU Guidelines	C. Chuen
			5 Progress on RERTR Activities in Argentina	S. Balart, O. Calzetta, P. Cristini, J. Garces, A. Gauna, A. Gonzalez, J. Hermida, M. Lopez, M. Mirandou, H. Taboada
			6 SAFARI-1: Achieving Conversion to LEU - A Local Challenge	C. Piani
			7 What is New with GTRI Since Cape Town	J. Edlow
<b>Lunch The Loretta Dining Room (Second Floor)</b>				
<b>3</b>	<b>Conversion Experience</b> <i>Co-Chairs: J. Roglans, L. Sklenka</i>	<b>1:30 p.m.</b>	1 Status of Reduced Enrichment Program for Research Reactors in Japan	H. Unesaki, H. Sagawa
			2 Core Conversion of the Portuguese Research Reactor to LEU Fuel	J. Marques
			3 Progress Report on the Conversion of the Purdue University Reactor, PUR-1, from HEU to LEU	J. Jenkins, E. Merritt, B. Revis
			4 HFR Towards Manufacturing Excellence	E. de Widt, F. Wijtsma
<b>Coffee Break and Refreshments</b>				
<b>4</b>	<b>Fuel Development - Part 1</b> <i>Co-Chairs: J. Snelgrove, S. Dubois</i>	<b>4:00 p.m.</b>	1 Status and Progress in the U.S. RERTR Fuel Development Program	D. Wachs
			2 Current Status of the Development of High Density Fuel for Russian Research Reactors	A. Vatulin, I. Dobrikova, V. Suprun, E. Kartashev, V. Lukichev
			3 Nuclear Fuel Development Based on UMo Alloys Under Irradiation Evaluation of LEU U <sub>3</sub> Si <sub>2</sub> - 4.8 gU/cm <sup>3</sup> Test Fuel	L. Olivares, J. Marin, J. Lisboa, M. Barrera, G. Torres
			4 Foil Fabrication and Barrier Layer Application for Monolithic Fuels	G. Moore, C. Clark, J. Jue, W. D. Swank, D. Haggard, M. Chapple, D. Burkes
			5 The Technique and Preliminary Results of LEU U-Mo Full Size IRT Type Fuel Elements in the MIR Reactor	A. Izhutov, V. Starkov, V. Pimenov, V. Fedoseev, I. Dobrikova, A. Vatulin, V. Suprun, Y. Kartashov, V. Lukichev
<b>5:30 p.m. Adjourn</b>				
<b>Tuesday Meeting Room: Prague Ballroom</b>				
<b>5</b>	<b>Conversion Analysis - Part 1</b> <i>Co-Chairs: J. Jenkins, TBD</i>	<b>8:00 a.m.</b>	1 Impact of the HEU/LEU Conversion on Experimental Facilities	M. Marek, J. Kysela, J. Ernest, S. Filibor, V. Broz
			2 Preliminary Study on New Configuration with LEU Fuel Assemblies for the Dalat Nuclear Research Reactor	V. Pham, V. Le, T. Huynh, B. Luong, K. Nguyen
			3 Neutronics and Steady-State Thermal Hydraulics Analysis for the HEU, Mixed HEU-LEU and the First Full LEU Cores of WWR-SM Reactor at INP AS Ruz	S. Baytelesov, A. Dosimbaev, F. Kungurov, U. Salikbaev
			4 Performance Gain with Low-Enriched Fuel and Optimized Use of Neutrons	A. Glaser
<b>Coffee Break and Refreshments</b>				
<b>6</b>	<b>Mo-99 Production - Part 1</b> <i>Co-Chairs: C. Piani, C. Allen</i>	<b>10:00 a.m.</b>	1 Indonesia's Current Status for Conversion of Mo-99 production to LEU Fission	B. Briyatmoko, Boybul, Guswardani, Suhardyo, Purwanta
			2 Overview of 2007 ANL Progress for Conversion of HEU-Based Mo-99 production as part of the U.S. Global Threat Reduction Conversion Program	G. Vandegrift, A. Bakel, A. Guelis, L. Hafenrichter, A. Hebden, J. Jerden, A. Leyva, K. Quigley, D. Stepinski
			3 Progress and Status of the IAEA Coordinated Research Project on Molybdenum-99 Production Using LEU or Neutron Activation	I. Goldman, N. Ramamoorthy, P. Adelfang
			4 HEU and LEU Comparison in the Production of Molybdenum-99	D. Cestau, P. Cristini, A. Novello, M. Bronca, R. Centurión, R. Bavaro, J. Cestau, E. Carranza
<b>Lunch The Loretta Dining Room (Second Floor)</b>				
<b>7</b>	<b>Transportation and Fuel Disposition</b> <i>Co-Chairs: J. Thomas, M. Pesic</i>	<b>1:00 p.m.</b>	1 Present Experience of the NRI REZ with Preparation of Spent Fuel Shipment to Russian Federation	F. Svitak, V. Broz, M. Hrehor, M. Marek, P. Novosad, J. Podlaha, J. Rycheky

			2 Update on Y-12 National Security Complex Activities to Recover Enriched Uranium in 2007	B. Eddy, T. Andes, R. Dunavant
			3 GTRI's Russian Fuel Return Program Progress	I. Bolshinsky
			4 The United States Foreign Research Reactor (FRR) Spent Nuclear Fuel (SNF) Acceptance Program: 2007 Update	C. Messick, J. Taylor
<b>Coffee Break and Refreshments</b>				
<b>8</b>	<b>Fuel Development - Part 2</b> <i>Co-Chairs: A. Izhutov, L. Alvarez</i>	<b>3:00 p.m.</b>	1 Development of Technology of High Density LEU Dispersion Fuel Plate Fabrication	T. Wiencek, T. Totev
			2 Update on Friction Bonding of Monolithic U-Mo Fuel Plates	D. Burkes, N. P. Hallinan, J. Wight, M. Chapple, C. Clark
			3 Development of Monolithic Nuclear Fuels for RERTR by Hot Isostatic Pressing	J. Jue, B. Park, M. Chapple, G. Moore, D. Keiser
			4 Update on Uranium-Molybdenum Foil Fabrication Development at the Y-12 National Security Complex (2007)	R. Dunavant, T. Andes
			5 Powder Formation of $\gamma$ -UMo Alloys via Hydration - Dehydration	F. de Oliveira, M. Durazzo, E. de Carvalho, A. Saliba-Silva, H. Riella
			6 Considerations in the Development of a Process to Manufacture Low-enriched Uranium Foil Fuel for the High Flux Isotope Reactor	J. Sease, R. T. Primm, J. Miller
<b>5:30 p.m. Adjourn</b>				
<b>Wednesday Meeting Room: Prague Ballroom</b>				
<b>9</b>	<b>Mo-99 Production - Part 2</b> <i>Co-Chairs: I. Goldman, R. Schultz</i>	<b>8:00 a.m.</b>	1 Highlights of ANL Technical Progress for Conversion of HEU-Based Mo-99 Production as Part of the U. S. Global Threat Reduction-Conversion Program	Allen Bakel, Artem Guelis, Lohman Hafenrichter, Andrew Hebden, James Jerden, Argentina Leyva, Kevin Quigley, Dominique Stepinski, and George F. Vandegrift
			2 Feasibility Study Part 1 - Thermal Hydraulic Analysis of LEU Target for Mo-99 Production in Tajoura Reactor	F. Bsebsu, F. Abotweirat, S. Elwaer
			3 Feasibility Development Program LEU-Foil Plate Type Target for the Production of Mo-99	C. Allen, R. Butler, C. Jarousse, JL. Falgoux
			4 Progress in Chile in the Development of the Fission Mo-99 Production Using CINTICHEM	R. Schraeder, J. Klein, J. Medel, J. Mar in, N. Salazar, C. Albornoz, M. Chandia, X. Errazu, R. Becerra
			5 Tc-99m Generators for Clinical Use Based on Zirconium Molybdate Del and (n,y) Produced Mo-99: Indian Experience in the Development and Deployment of Indigenous Technology and Processing Facilities	P. Saraswathy, A. Dey, S. Sarkar, C. Kothalkar, P. Naskar, G. Arjun, S. Arora, A. Kohli, V. Meera, V. Venugopal, N. Ramamoorthy
<b>Coffee Break and Refreshments</b>				
<b>10</b>	<b>Conversion Analysis - Part 2</b> <i>Co-Chairs: E. de Wit, N. Hanan</i>	<b>10:30 a.m.</b>	1 MNSR Flux Performance and Core Lifetime Analysis with HEU and LEU Fuels	J. R. Liaw, J. E. Matos
			2 The Study of Physics and Thermal Characteristics for the Special MNSR	K. Guoto, S. Ziyong, L. Zheng, S. Feng, L. Tiancai
			3 The Physics of Experimental Study for the Special MNSR	L. Yiguo, X. Pu, Z. Shuyun, Z. Yongbao, L. Zheng, Z. Wuqing, S. Yongqian, G. Jijin, Z. Yongmao
			4 Progress in the Conversion Activity of the Syrian MNSR	M. Albarhoum
<b>Lunch The Loretta Dining Room (Second Floor)</b>				
<b>11</b>	<b>Poster Session</b> Belvedere I and II (Second Floor) <i>Organizer: J. Holland</i>	<b>12:30 p.m.</b>	1 Generic Methodology for Assessment of Research Reactor Fuel Integrity	T. Totev
			2 Identification of Phases in the Interaction Layer between U-Mo-Zr/Al and U-Mo-Zr/Al-	C. K. Varela, S. Aricó, M. Mirandou, S. Balart, L. Gribaudo
			3 Vinca Institute Safety and Licensing Actions for Carbon Steel Structure Removal from RA Research Reactor SNF Pool	M. Pešić, O. Šotić, S. Pavlović, V. Ljubenov, A. Nikolić
			4 RELAP5-3D and MCNP Analysis of MNSR HEU and LEU Cores	F. Dunn, J. Thomas, J. Liaw, J. Matos
			5 Microstructure of 50 Year Old SKC•CEN BR1 Research Reactor Fuel	A. Leenaers, S. Van den Berghe
			6 Technical Assumption for Mo-99 Production in the MARIA Reactor	J. Jaroszewicz, K. Pytel, J. Dabkowski
			7 Thermal-Hydraulic Calculations for the Conversion to LEU of a Research Reactor Core	D. Grigoriadis, M. Varvayannin, N. Catsaros, E. Stakakis
			8 Current Status of U <sub>3</sub> Si <sub>2</sub> Fuel Elements Fabrication in Brazil	M. Durazzo, A. Silva, J. de Souza, E. de Carvalho, H. Riella
			9 Neutronic Calculations for the Conversion to LEU of a Research Reactor Core	M. Varvayanni, D. Grigoriadis, N. Catsaros, E. Stakakis
			10 Conversion: Experiences from the Texas A&M University Reactor Conversion	J. Creasy
			11 Texas A&M HEU to LEU Conversion Fabrication and Operational Performance	A. Veca, K. Mushinski
			12 Conversion of Research and Test Reactors: Past Performance, Future Plans	N. Butler
			13 Determination of a Neutron Flux Density Distribution in the Core with LEU Fuel IRT 4M at the Training Reactor VR-1	O. Huml
			14 Measurement of Gamma Field Parameters in Core with LEU Fuel IRT-4M Using TL Detectors	T. Bily
			15 The First Critical Experiment with a LEU Russian Fuel IRT-4M at the Training Reactor VR-1	J. Frybort
			16 The Determination of Neutron Energy Spectrum in Core C1 of Reactor VR-1	M. Vins
			17 Comparison of Traditional Nondestructive Analysis of RERTR Fuel Plates with Digital Radiographic Techniques	T. Davidsmeier, R. Koehl, R. Lanham, E. O'Hare, T. Wiencek
			18 Thermal Hydraulic Analysis for the Oregon State TRIGA Reactor Using RELAP5-3D	W. Marcum, B. Woods, M. Hartman
<b>12</b>	<b>U.S. Reactor Conversion</b> <i>Co-Chairs: J. Matos, J. Marques</i>	<b>2:00 p.m.</b>	1 U.S. Domestic University Reactor Conversion Program	D. Meyer, E. Woolstenhulme

			2 ATR LEU Fuel and Burnable Absorber Neutronics Performance Optimization by Fuel Plate Thickness Variation	G. Chang
			3 Progress Made on the University of Missouri Research Reactor HEU to LEU Conversion Feasibility Study	J. C. McKibben, K. Kutikkad, L. Foyto
			4 Reactor Core Design and Modeling of the MIT Research Reactor for Conversion to LEU	T. Newton, A. Olson, J. Stillman
			5 Validation of the MULCH-II Code for Thermal-Hydraulic Safety Analysis of the MIT Research Reactor Conversion to LEU	Y-C. Ko, L-W. Hu, A. Olson, F. Dunn
<b>Coffee Break and Refreshments</b>				
<b>13</b>	<b>Fuel Development - Part 3</b> <i>Co-Chairs: P. Adelfang, D. Sears</i>	<b>4:30 p.m.</b>	1 Observations Derived from the Characterization of Monolithic Fuel Plates Irradiated as Part of the RERTR6 Experiment	D. Keiser, A. Robinson, M. Finlay
			2 Transmission Electron Microscopy Investigation of Irradiated U-7%Mo Dispersion Fuel	S. Van den Berghe, W. Van Renterghem, A. Leenaers
			3 Post Irradiation Analysis and Performance Modeling of Dispersion and Monolithic U-Mo Fuels	Y. S. Kim, G. Hofman, P. Medvedev, S. Hayes, G. Shevlyakov
			4 Improvement in the Structure Identification of the Phases in the Interaction Layers U-Mo/Al or Al-Si Employing High Intensity X-ray Diffraction	M. Mirandou, S. Balart, C. Varela, S. Aricó, A. Fortis
<b>6:00 p.m. Adjourn</b>				
<b>Thursday Meeting Room: Prague Ballroom</b>				
<b>14</b>	<b>Conversion Analysis - Part 3</b> <i>Co-Chairs: J. C. McKibben, S. Jonah</i>	<b>8:00 a.m.</b>	1 Results of Transient/Accident Analysis for the HEU, First Mixed HEU-LEU, and for the First Full LEU Cores of the WWR-SM Reactor at INP AS Ruz	S. Baytelesov, A. Dosimbaev, F. Kungurov, U. Saikhbaev
			2 Investigation of Approximations in Thermal-Hydraulic Modeling of Core Conversions	P.L. Garner, N. A. Hanan
			3 Comparative Assessment of Nuclear Criticality and Neutronic Performance Indicators of 12.1% Enriched LEU UO <sub>2</sub> Fuels for Conversion of the Ghana MNSR Facility	S. Anim-Sampong, J. Liaw, J. Matos, B. Maakuu, G. Banini, A. Andam, E. Amponsah-Amoako, S. Attakorah, I. Lawson, R. Sogbadji, G. Quao
			4 Calculations of MARIA Reactor Using REBUS and MCNP Codes	K.J. Andrzejewski, T.A. Kulikowska, Z.E. Marcinkowska, W. Mielezczenko, K.M. Pytel, N. Hanan
			5 Fuel Management for Research Reactors in the Czech Republic	J. Kysela, J. Rychucky, V. Rypar, K. Matejka, L. Sklenka
<b>Coffee Break and Refreshments</b>				
<b>15</b>	<b>Fuel Development - Part 4</b> <i>Co-Chairs: D. Keiser, A. Leenaers</i>	<b>10:30 a.m.</b>	1 Post Irradiation Analysis of RERTR-7A, 7B, and RERTR-8 Tests	G. Hofman
			2 Production and Characterization of Atomized U-Mo Powder by the Rotating Electrode Process	C. Clark, B. Muntfering, J. Jue, M. Chapple
			3 Phase Stability of U-Mo Ti Alloys and Interdiffusion Behaviours of U-Mo-Ti/Al-Si	J. M. Park, H. Ryu, J. S. Park, S. Oh, C. Kim, Y. S. Kim, G. Hofman
			4 Results of PIE of Experimental (U-Mo)-Based LEU Dispersed Fuel Compositions	A. Vatulín, I. Dobrikova, V. Suprun, Y. Petrov, Y. Trifonov, V. Alexandrov, A. Izhutov, A. A. Novoselov, V. Starkov, V. Shishin, V. Yakovlev
<b>Lunch The Loretta Dining Room (Second Floor)</b>				
<b>16</b>	<b>Conversion Analysis - Part 4</b> <i>Co-Chairs: T. Newton, S. Belousov</i>	<b>1:00 p.m.</b>	1 Fundamental Approach to TRIGA Steady State Thermal-Hydraulic CHF Analysis	E. Feldman
			2 MNSR Transient Analyses and Thermal-Hydraulic Safety Margins for HEU and LEU Cores Using PARET	A. Olson, S. Jonah
			3 Consequences of Potential Radiation Accident in the WWR-K Reactor at Life Test of LTA with Low-Enriched Fuel	F. Arinkin, P. Chakrov, L. Chekushina, Sh. Gizatulín, S. Koltochnik, N. Romanova, A. Tuleushev, A. Shaimerdenov
			4 Optimization from Core to Experiment - Using Monte Carlo Computer Codes for the Conversion of High Flux Neutron Sources	M. Englert
<b>17</b>	<b>Fuel Development - Part 5</b> <i>Co-Chairs: C. K. Kim, D. Wachs</i>	<b>2:30 p.m.</b>	1 The Small-Angle Neutron Scattering by the Dispersed U-9% Mo/Al Fuel Irradiated to High Burn-up	O. Golosov, S. Bogdanov, V. Semerikov, M. Ljutikova
			2 Simulation with PLACA/DPLACE of Thermal and Mechanical Phenomena in Monolithic and Dispersed Fuel Plates	A. Soba, A. Denis
			3 MTR Plates Modeling with MAIA	V. Marelle, S. Dubois, M. Ripert, J. Noiroit
<b>Coffee Break and Refreshments</b>				
	<b>Round Table, Summary and Closure</b> <i>Co-Chairs: J. Roglans and L. Sklenka</i>	<b>4:00 p.m.</b>		
<b>4:30 p.m. Adjourn</b>				
<b>Friday Tours: (1) Sparrow Reactor at Czech Technical University or (2) Nuclear Research Institute at Rez, Czech Republic</b>				