



## Programme

### Sunday 11 May 2014

Pre-registration

Welcome Reception

### Monday 12 May 2014

8:30-10:30

#### **Opening session**

Chair: Bernard Bigot, ENC 2014 Conference Chair

Opening panel:

Noël Camarcat, President European Nuclear Society

Frank Deconinck, ENC 2014 Programme Committee Chair and ENS Honorary President

Milo Alani, Chair of the ENS Young Generation Network

Donald Hoffman, President American Nuclear Society

Keynote speeches:

Director Executive Group Production & Engineering, EDF, France

Osamu MOTOJIMA, Director General, ITER

10:30-11:00

Coffee break



11:00-13:30

Plenary session:

**Preparing for nuclear new build -**

Including a round table of leading nuclear suppliers

Chair: Agneta Rising, World Nuclear Association

**Developing supply chain capability and support for SMEs: a UK case study**

Keith Parker, Nuclear Industry Association, United Kingdom

**Challenges for governments in deciding and planning for new build**

Jorma Aurela, Ministry of Employment & Economy, Finland

**Towards nuclear new build**

Paul Rorive, GDF Suez, Belgium

**Nuclear New Build in Poland**

Beata Sparazynska, Ministry of Economy, Nuclear Energy Department, Poland

**Followed by a round table of suppliers with:**

Arthur de Montalembert, Executive Vice President Business Development, AREVA

Mike Kirst, Vice President, Strategy and External Affairs, Westinghouse EMEA

Nikolai Drozdov, Director International Business Department, Rosatom

Philippe Anglaret, President, French Nuclear Suppliers Association (GIIN)

David Powell, Vice President Europe Region, GE Hitachi

David Boath, Chief Engineer, AMEC

13:30-14:30

Lunch



14:30-16:30

Plenary session:

**Challenges for nuclear operation**

Chair: Valérie Faudon, SFEN, France

**EDF nuclear fleet and long term operations**

Michel Debes, EDF Generation, France

**Ensuring excellence over an extended life-time of reactors**

Pal Efsing, Royal Institute of Technology/KTH, Sweden

**Investments for continuous safety improvements**

Božidar Krajnc, Krško Nuclear Power Plant, Slovenia

**WANO's contribution to strengthen nuclear safety – lessons learned from Fukushima and actions implemented**

Bjarne Norén, WANO Paris Centre, France

16:30-16:50

Coffee break

Mon 16:50-18:30 Parallel session

**New build I - Room Callelongue 1**

Chair: J. Ortega, Tecnatom, Spain

ENC2014-A0056	NUCLEAR ENERGY IN A LOW CARBON FUTURE: UPDATING THE IEA/NEA NUCLEAR ENERGY ROADMAP	Paillere, H. (1); Cameron, R. (1); Tam, C. (2) 1 - OECD Nuclear Energy Agency, France 2 - International Energy Agency, France
ENC2014-A0100	A RETROSPECTIVE LOOK ON PLANT EVENTS FOR PROSPECTIVE AFFIRMATION OF NUCLEAR SAFETY	Koshy, T. (1); Khamis, I. (1) 1 - International Atomic Energy Agency, Austria
ENC2014-A0030	FLEXBLUE : AN IMMERSSED SMR WITH A NEW AND CHALLENGING NUCLEAR PARADIGM	Bugat, A. (1); Felten, P. (1); Lecomte, M. (1); Perrier, S. (2); Poimboeuf, J-M. (1); Briffod, F.-X. (2) 1 - NUCADVISOR, France 2 - DCNS, France
ENC2014-A0039	CHALLENGES TO NUCLEAR EXPORT CONTROLS TODAY	Sevini, F. (1); Chatelus, R. (1); Michel, Q. (2); Janssens, W. (1) 1 - European Commission - Joint Research Centre ITU, Italy 2 - Liege University, Belgium
ENC2014-A0069	CONCEPTUAL DESIGN OF PASSIVE CONTAINMENT COOLING SYSTEM WITH AIR HOLDUP TANKS OF IMPROVED APR+	Jeon, B. G. (1); No, H. C. (1) 1 - Korea Advanced Institute of Science and Technology, Korea Republic of



Mon 16:50-18:30 Parallel session

**Plant operations I - Room Callelongue 2**

Chair: S. San Antonio, Tecnatom, Spain

Co-chair: G. Sunaryo, PTRKN, BATAN, Indonesia

ENC2014-A0027	EXPERIENCE OF SAFETY AND PERFORMANCE IMPROVEMENT FOR FUEL HANDLING EQUIPMENT	Chang, S. (1); Lee, D. (1) 1 - KEPCO ENC, Korea Republic of
ENC2014-A0092	THE EFFECT OF HYDRAZINE ON SUPPRESSING RADIOLYSIS PRODUCT OF OXYGEN UP TO 300OC	Sunaryo, G. R. (1) 1 - PTRKN, BATAN, Indonesia
ENC2014-A0104	MODERNIZATION PROJECT OF THE ROD CONTROL SYSTEM & IN-CORE INSTRUMENTATION SYSTEM FOR 34 UNITS OF THE 900MW FRENCH FLEET	Desgeorge, R. (1) 1 - Rolls-Royce, France
ENC2014-A0266	CRONOS, AN ADVANCED SYSTEM FOR RCCA INSPECTION	Sola, A. (1); Francisjo J., F. (1) 1 - TECNATOM, S.A., Spain

Mon 16:50-18:30 Parallel session

**Nuclear technology in society - Room Morgiou**

Chair: J. Schröder, SCK•CEN, Belgium

Co-chair: J. Sabol, Czech Technical University, Czech Republic

ENC2014-A0029	COMMUNICATION WITH THE PUBLIC IN RADIATION PROTECTION OR NUCLEAR SAFETY AND SECURITY	Sabol, J. (1); Sestak, B. (1); (1); 1 - Police Academy of the Czech Republic in Prague, Prague, Czech Republic
ENC2014-A0061	GLOBAL SUSTAINABILITY OF NUCLEAR ENERGY SYSTEMS: COMPARISON OF THE FRENCH CLOSE FUEL CYCLE WITH AN OPEN FUEL CYCLE AND WITH OTHER ENERGY SOURCES	Poinssot, C. (1); Bourg, S. (1); Ouvrier, N. (1); Bruno, J. (2) 1 - CEA, Nuclear Energy Division, Radiochemistry and Processes Department, France 2 - AMPHOS 21, Spain
ENC2014-A0156	INVOLVING THE CITIZENS. RADIOACTIVE WASTE MANAGEMENT AND THE EU	Ferraro, G. (1) 1 - European Commission - Joint Research Centre - Institute for Energy and Transport, Netherlands
ENC2014-A0222	EURO COINS, ENTREPRENEURSHIP AND X-RAY FLUORESCENCE	Peeters, A. (1); Fraipont, C. (1) 1 - ISIB, Belgium
ENC2014-A0250	FINAL, PASSIVE DISPOSAL AND REVERSIBILITY & RETRIEVABILITY: A SOCIO-TECHNICAL CHALLENGE	Schröder, J. (1); Bergmans, A.(1) 1 - University of Antwerp, Belgium



Mon 16:50-18:30 Parallel session

**Workshop organised by the Young Generation of ENS -  
Room Sormiou**

Chair: Milo Alani, Chair of the ENS Young Generation Network

Co-chair: Eileen Radde, Co-Chair ENS Young Generation Network

Developing a nuclear new build opportunity requires a broad understanding of country's needs. Needs are very country specific and it involves mapping different areas such as politics, public opinion, economics, energy need, media, stakeholders, etc. and working with these touch points to optimize the nuclear technology provider's position in the market.

Presenter:

Andreas Fristedt-Åblad, Manager Business Development New  
Plants, Westinghouse Electric Company



## Tuesday 13 May 2014

Tue 8:30-10:10 Parallel session

### **Plant operations II - Auditorium**

Chair: M. Varno, GEH Nuclear Energy, United States

Co-chair: B. Jolly, SFEN, France

ENC2014-A0115	AIR-OPERATED VALVE DIAGNOSTICS: REQUIREMENTS, PROGRAMMES AND EXPERIENCES	Cervilla, R. (1); Vallana, F. (1); Laporta, J. M. (1) 1 - TECNATOM, Spain
ENC2014-A0117	NUCLEAR PLANT POWER UPRATE STUDY: FEEDWATER HEATER EVALUATIONS	Catapano, M. (1); Svensson, E. (1); Thomas, D. (2); Coakley, M. (2) 1 - Powerfect, Inc, United States 2 - Exelon, United States
ENC2014-A0152	GE HITACHI'S PARTS ASSET MANAGEMENT SOLUTIONS (PAMS)	Varno, M. (1) 1 - GEH Nuclear Energy, United States
ENC2014-A0180	AGEING MANAGEMENT AND EQUIPMENT QUALIFICATION	Stahl, G. (1) 1 - Westinghouse Electric Company, Sweden

Tue 8:30-10:10 Parallel session

### **New build II – Room Callelongue 1**

Chair: G. Harrop, Westinghouse, Belgium

Co-chair:

ENC2014-A0108	NEW BUILD METHODOLOGY APPROACH BY IBERDROLA INGENIERÍA Y CONSTRUCCIÓN. SAMPLE CASES AND REFERENCES.	Martinez Gozalo, I. (1); Díaz Prada, J. I. (1); Merino Teillet, A. (1) 1 - Iberdrola Ingeniería y Construcción, Spain
ENC2014-A0164	AP1000® PRESSURIZED WATER REACTOR PROJECT IN CHINA ADVANCES TOWARD COMPLETION	Harrop, G. (1) 1 - Westinghouse Electric Company LLC, United States
ENC2014-A0184	A COMPREHENSIVE FRAMEWORK FOR SUCCESSFUL NUCLEAR NEW BUILD DELIVERY. AN HOLISTIC, MULTI-DISCIPLINARY AND INTEGRATIVE APPROACH TO IMPROVE PROJECT'S DELIVERY, GOODWILL AND PERFORMANCE.	Jimenez, R. (1) 1 - Manchester Business School, United Kingdom
ENC2014-A0147	SPENT FUEL POOL COOLING SYSTEM UPGRADE FOR KORI UNIT 1	Park, J. S. (1); Shin, K. I. (1) 1 - KEPCO Engineering & Construction, Inc., Korea, republic of





Tue 8:30-10:10 Parallel session

**RT - coolant & fuel technology - Room Callelongue 2**

Chair: R. Stainsby, National Nuclear Laboratory, UNITED KINGDOM

Co-chair: F. Roelofs, NRG, The Netherlands

ENC2014-A0006	EUROPEAN LIQUID METAL THERMAL-HYDRAULICS R&D: PRESENT AND FUTURE	Roelofs, F. (1); Batta, A. (2); Bandini, G. (3); Van Tichelen, K. (4); Gerschenfeld, A. (5); Cheng, X. (2) 1 - NRG, Netherlands 2 - KIT, Germany 3 - ENEA, Italy 4 - SCK•CEN, Belgium 5 - CEA, France
ENC2014-A0007	AN OPTIONEERING AND CONCEPT DESIGN STUDY FOR THE ASTRID SODIUM-GAS HEAT EXCHANGER MATRIX	Hattrell, T. (1); Pilatis, N. (1); Lopez-Ramirez, S. (1) 1 - Rolls-Royce, United Kingdom
ENC2014-A0124	EXPERIMENTAL STUDY OF IRRADIATION INDUCED SWELLING AND HARDENING OF COMMERCIAL AND EXPERIMENTAL ODS STEELS IMPLANTED WITH HELIUM IONS	Fave, L. (1); Pouchon, M. A. (1) 1 - Paul Scherrer Institut, Switzerland
ENC2014-A0167	PRELIMINARY DESIGN STUDIES OF THE DRAINING TANKS FOR THE MOLTEN SALT FAST REACTOR	Merle-Lucotte, E. (1); Allibert, M. (1); Heuer, D. (1); Brovchenko, M. (1); Ghetta, V. (1); Laureau, A. (1); Rubiolo, P. (1) 1 - LPSC-IN2P3-CNRS/UJF/Grenoble INP, France

Tue 8:30-10:10 Parallel session

**Severe accidents – Room Morgiou**

Chair: D. Popov, NPP Kozloduy, Bulgaria

Co-chair: S. San Antonio, Tecnatom, Spain

ENC2014-A0042	PROGRESS ON B4C CONTROL ROD MODELING IN RELAP/SCDAPSIM WITH APPLICATION TO QUENCH AND PHEBUS	Kawahara, K. (1); Chris, A. (2); Judith, H. (2) 1 - University of Tokyo, Japan 2 - Innovative Systems Software, United States
ENC2014-A0046	DEVELOPMENT OF CONCRETE ABLATION MODELS FOR GAMMA ASSESSMENT OF TOTAL RCCS FAILURE WITH AN AIR-INGRESS ACCIDENT IN HTGRS	Yoon, S. H. (1); No, H. C. (1); Park, B. H. (1) 1 - Korea Advanced Institute of Science & Technology(KAIST), Korea, Republic of
ENC2014-A0062	ANALYSIS OF PASSIVE AUTOCATALYTIC RECOMBINERS INSTALLATION IN COFRENTES NPP	Molina, C. (1); Serrano, C. (1); Jimenez, G. (2) 1 - Iberdrola Engineering and Construction, Spain 2 - Universidad Politécnica de Madrid-ETSII, Nuclear Engineering Department, Spain
ENC2014-A0114	IMPLEMENTATION OF SAM IN SLOVENSKE ELEKTRARNE	Reznik, V. (1) 1 - Slovenske Elektrarne, Slovakia
ENC2014-A0122	SEVERE ACCIDENT MANAGEMENT GUIDELINE TOOL	Gutierrez, J. (1); Tanarro, A. (1); Martinez, R. (1) 1 - TECNATOM, Spain



Tue 8:30-10:10 Parallel session

**General fuel cycle - Room Sormiou**

Chair: R. Cameron, OECD

ENC2014-A0031	ELECTROCHEMICAL CATHODIC REDUCTION OF PLUTONIUM IV SOLUTIONS IN NITRIC ACID MEDIUM ON MINIATURIZED PLATE ELECTROLYZER	Georgette, S. (1); Picart, S. (1); Bouyer, C. (1); Maurin, J. (1); Venault, L. (1); Bisel, I. (1); Grandjean, S. (1); Deseure, J. (2); Lapicque, F. (3) 1 - CEA, Nuclear Energy Division, RadioChemistry and Processes Department, , France 2 - LEPMI UMR 5279 CNRS, France 3 - LRGP UPR 3349 CNRS-ENSIC-INPL, France
ENC2014-A0059	SACSESS: TOWARDS AN ENHANCED SAFETY OF ACTINIDE SEPARATION PROCESSES	Bourg, S. (1); Ekberg, C. (2); Geist, A. (3); Guilbaud, P. (1); Modolo, G. (4); Rhodes, C. (5); Taylor, R. (5); Biggs, S. (6) 1 - CEA, Nuclear Energy Division, Radiochemistry and Processes Departement, France 2 - CHALMERS, Sweden 3 - KIT-INE, Germany 4 - Forschungszentrum Jülich, Germany 5 - National Nuclear Laboratory, United Kingdom 6 - University of Leeds, United Kingdom
ENC2014-A0077	TECHNOLOGICAL ADVANCES IN (U, PU)O <sub>2</sub> CRO RECYCLING USING MICROWAVE HEATING	Das, D. K. (1); Singh, G. (1); Khot, P. M. (1); Kumar, S. (1); Mishra, A. K. (1); Behere, P. G. (1); Afzal, M. (1); Kumar, A. (1) 1 - Advanced Fuel Fabrication Faciltiy, Bhabha Atomic Research Centre, NFG, Tarapur, India
ENC2014-A0098	TRANSMUTATION TIME IN THE MA-BURNERS EFFICIENCY ESTIMATION	Viacheslav, K. (1); Vladimir, S. (1) 1 - Institute of Theoretical and Experimental Physics, Russian Federation
ENC2014-A0012	MANAGING ENVIRONMENTAL AND HEALTH IMPACTS OF URANIUM MINING	Cameron, R. (1); Vance, R. (1) 1 - OECD Nuclear Energy Agency, France

10:10-10:30 Coffee break





10:30-12:30

Plenary session:

**Nuclear technology for life sciences and other applications**

Chair: Frank Deconinck, Vrije Universiteit Brussel, Belgium

**Hypersensitivity to low doses during mammography**

Nicolas Foray, INSERM, France

**Challenges for medical isotope production**

Jean-Michel Vanderhofstadt, AIPES

**Assessment of radiation exposure due to the nuclear accident in Fukushima**

Wolfgang Weiss, UNSCEAR

**Nuclear technology to conquer space**

Fiona Rayment, NNL, United Kingdom

12:30-13:30

**Poster session**

13:30-14:30

Lunch



Tue 14:30-16:30 Parallel session

**Materials - Auditorium**

Chair: J. Alonso, Tecnatom, Spain

Co-chair: L. Vanhoenacker, Tractebel Engineering (GDF SUEZ), Belgium

ENC2014-A0091	ASSESSMENT OF GRAIN BOUNDARY SEGREGATION INDUCING INTERGRANULAR FRACTURE IN RPV STEELS	Chaouadi, R. (1); Puzzolante, J.-L. (1); Van Eycken, J. (1) 1 - SCK•CEN, Belgium
ENC2014-A0127	PRESSURIZED THERMAL SHOCK (PTS) ANALYSIS IN GERMAN NUCLEAR POWER PLANTS	Fricke, S. (1); Braun, M. (1) 1 - TÜV NORD Nuclear, Germany
ENC2014-A0194	PROJECT ACCENT: GRAPHITE IRRADIATION-INDUCED CREEP IN A MATERIALS TEST REACTOR	Brooking, M. (1) 1 - Atkins, United Kingdom

Tue 14:30-16:30 Parallel session

**Fusion: ITER and next generation devices - Room Callegongue 1**

Chair: L. Packer, Culham Centre for Fusion Energy, UNITED KINGDOM

Co-chair: K. Samec, CERN, Switzerland

ENC2014-A0084	ASSEMBLY OF THE VACUUM VESSEL	Moreno Zubelzu, R (1) 1 - ENSA (Grupo SEPI), Spain
ENC2014-A0095	MEASUREMENT OF TRITIUM IN COMBINATION WITH FREE RELEASE OF VERY LOW LEVEL RADIO-ACTIVE MATERIAL	Sokcic-Kostic, M. (1); Klein, C. (1); Langer, F. (1); Schultheis, R. (1) 1 - NUKEM Technologies GmbH, Germany
ENC2014-A0133	WELD DISTORTION PREDICTION AND CONTROL OF THE ITER VACUUM VESSEL MANUFACTURING MOCKUPS	Barbensi, A. (1); Ottolini, M. (1) 1 - ANSALDO NUCLEARE, Italy
ENC2014-A0212	NUCLEAR ANALYSIS OF THE EU TEST BLANKET MODULE SHIELDING DESIGN FOR ITER AND SURVEY OF DEMO BLANKET PERFORMANCE	Packer, L. (1); Gilbert, M. (1); Sublet, J.-C. (1); Morgan, L. (1); Zheng, S. (1) 1 - Culham Centre for Fusion Energy, Culham Science Centre, United Kingdom
ENC2014-A0254	ENGINEERING CHALLENGES AND SOLUTIONS FOR THE ITER MAGNETIC DIAGNOSTICS FLUX LOOPS	Clough, M. (1); Casal, N. (2); Suarez diaz, A. (2); Vayakis, G. (2); Walsh, M. (2) 1 - National Nuclear Laboratory, United Kingdom 2 - ITER Organization, France
ENC2014-A0259	A SPALLATION-BASED IRRADIATION TEST FACILITY FOR FUSION AND FUTURE FISSION MATERIALS	Samec, K. (1); Kadi, Y. (1); Fusco, Y. (1); Luis, R. (1); Behzad, M. (1); Aleksan, R. (2); Bousson, S. (3) 1 - CERN, Switzerland 2 - CNRS-IN2P3, France 3 - CEA-Orsay, France



Tue 14:30-16:30 Parallel session

**Fuel fabrication - Room Callelongue 2**

Chair: V. van Vo, AREVA, France

ENC2014-A0032	INVESTIGATIONS ON URANIUM-AMERICIUM MIXED-OXIDE COMPOUNDS FOR TRANSMUTATION	Lebreton, F. (1); Horlait, D. (1); Caisso, M. (1); Delahaye, T. (1); Martin, P. M. (2); Belin, R. C. (3); Blanchart, P. (4) 1 - CEA, DEN, DTEC/SDTC/LEMA, France 2 - CEA, DEN, DEC/SESC/LLCC, France 3 - CEA, DEN, DEC/SPUA/LMPC, France 4 - GEMH/ENSCI, Université de Limoges, France
ENC2014-A0033	DUSTLESS FABRICATION PROCESS FOR MINOR ACTINIDE BEARING BLANKETS: FIRST APPLICATIONS TO (CE, GD)O <sub>2</sub> AND (U,GD)O <sub>2</sub>	Caisso, M. (1); Lebreton, F. (1); Horlait, D. (1); Picart, S. (2); Renard, C. (3); Martin, P. (4); Roussel, P. (4); Ayrat, A. (5); Delahaye, T. (1) 1 - DEN/DTEC/SDTC/LEMA, France 2 - DEN/DRCP/SERA/LCA, France 3 - UCCS, UMR 8012 CNRS, Ecole Nationale Supérieure de Chimie de Lille, France 4 - CEA, DEN/DEC/SESC, France 5 - Institut Européen des Membranes, UMR 5635 CNRS-ENSCM-UM2, CC047, Université Montpellier 2, France
ENC2014-A0049	U-FREE TARGET RECYCLING: ASSESSMENT OF AQUEOUS REPROCESSING FEASIBILITY	Ouvrier, N. (1) 1 - Commissariat à l'énergie atomique et aux énergies alternatives (CEA), France
ENC2014-A0239	FINITE ELEMENT MODELING AND ASSOCIATED EXPERIMENTATIONS TO OPTIMIZE AND PREDICT THE PRESSING CYCLE OF A FUTURE AMBB MANUFACTURING PRESS	Bayle, J-P. (1); Mezeix, P. (1); Delette, G. (2); Tronche, E. (1); Picart, S. (3); Remy, E. (3) 1 - CEA Marcoule DEN, DTEC, SDTC, Ltap, France 2 - CEA Grenoble DRT, LITEN, DEHT, Lpce, France 3 - CEA Marcoule DEN, DRCP, DERA, Lcar, France
ENC2014-A0269	AREVA SOLUTIONS FOR MANAGEMENT OF DEFECTIVE FUEL	Vo van, V. (1) 1 - AREVA NC, Used Fuel and Recycling Solutions, France



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Tue 14:30-16:30 Parallel session

**Life science applications - Room Morgiou**

Chair: M. Gheeraert, ACMG, Belgium

Co-chair: S. McEwan, University of Alberta, Canada

ENC2014-A	THE USE OF CLINICAL TECHNETIUM WITH CYCLOTRONS	McEwan, S. (1) 1 - University of Alberta, Canada
ENC2014-A0034	THE IMPACT OF NUCLIDE VECTOR COMPOSITION ON CALCULATED INDIVIDUAL EFFECTIVE DOSES OF THE WORKERS DURING THE MELTING OF CONTAMINATED SCRAP METAL	Slimák, A. (1); Nečas, V. (1) 1 - Institute of Nuclear and Physical Engineering, Slovak University of Technology in Bratislava, Slovakia
ENC2014-A0035	CALCULATION OF EXTERNAL EXPOSURE DURING TRANSPORT AND DISPOSAL OF RADIOACTIVE WASTE ARISEN FROM DISMANTLING OF STEAM GENERATOR	Hornáček, M. (1); Nečas, V. (1) 1 - Institute of Nuclear and Physical Engineering, Slovak University of Technology in Bratislava, Slovakia
ENC2014-A0190	PRACTICAL APPLICATION OF COMPUTER CODE PANTHERE FOR WORKERS' RADIATION PROTECTION	Carlier, P. (1); Lereculey, C. (1); Michoux, X. (1) 1 - EDF, France

Tue 14:30-16:30 Parallel session

**Education and training I - Room Sormiou**

Chair: F. Sanchez, Technatom, Spain

Co-chair: V. Slugen, Slovak University of Technology, Slovakia

ENC2014-A0028	STRENGTHENING THE EDUCATION AND TRAINING IN RADIATION AND NUCLEAR SAFETY AND SECURITY	Sabol, J. (1); Sestak, B. (2); Podzimek, F. (1) 1 - Czech Technical University in Prague, Czech Republic 2 - Police Academy of the Czech Republic in Prague, Czech Republic
ENC2014-A0043	DEVELOPING TOOLS FOR THERMAL-HYDRAULICS EDUCATION	Royer, E. (1) 1 - CEA/INSTN, France
ENC2014-A0063	TRANSMISSION OF TACIT KNOWLEDGE FROM PERSONNEL WITH EXTENSIVE EXPERIENCE IN NUCLEAR ENGINEERING	Riverola, J. (1); Corisco, M. (1); Segovia, A. (1) 1 - ENUSA Industrias Avanzadas, S.A., Spain
ENC2014-A0120	FAST TRACKING NUCLEAR SAFEGUARDS KNOWLEDGE TRANSFER THROUGH VIRTUAL AND REAL-WORLD ENGAGEMENT	De Luca, A. (1); Marin-Ferrer, M. (1); Peerani, P. (1); Janssens, W. (1) 1 - Nuclear Security Unit, Institute for Transuranium Elements, Joint Research Centre, European Commission, Italy
ENC2014-A0161	NEEDS FOR EUROPEAN DECOMMISSIONING ACADEMY (EDA)	Slugen, V. (1) 1 - Slovak University of Technology, Bratislava, Slovakia
ENC2014-A0234	NUCLEAR SAFETY TRAINING PROGRAM (NSTP) FOR DISMANTLING AND DECONTAMINATION.	Cretskens, P. (1); Lenie, K. (1); Mulier, G. (1) 1 - European Control Services CVBA, Belgium



16:30-16:50 Coffee break

Tue 16:50-18:30 Parallel session

**New build III - Auditorium**

Chair: N. Haspel, Westinghouse, Germany

ENC2014-A0183	WESTINGHOUSE SMALL MODULAR REACTOR - FOR ELECTRICITY AND ALTERNATIVE APPLICATIONS	Haspel, N. (1) 1 - Westinghouse Electric Germany GmbH, Germany
ENC2014-A0199	ASSESSMENT OF CO <sup>2</sup> FREE ENERGY OPTIONS	Cavlina, N. (1); Raseta, D. (1); Matutinovic, I (2) 1 - FER, University of Zagreb, Croatia 2 - GfK - center for market research, Zagreb, Croatia
ENC2014-A0211	ENGINEERING & TRAINING SIMULATION FOR THE NEW GENERATION NUCLEAR PLANTS	Beauge, L. (1); Gain, P. (2) 1 - EDF CNEN, France 2 - CORYS T.E.S.S., France
ENC2014-A0227	A WORLDWIDE REVIEW OF THE COST OF NUCLEAR POWER	Mario, N. (1); Lecomte, M. (1); Vignon, D. (1) 1 - NucAdvisor, France

Tue 16:50-18:30 Parallel session

**RT - Core analysis - Room Callelongue 1**

Chair: F. Corchon, nuclenor, Spain

Co-chair: JM Hamy, AREVA, France

ENC2014-A0005	VERIFICATION OF DECART/CAPP CODE SYSTEM FOR VHTR BY HTR CORE ANSLYSIS	Jeong, C. J. (1); Lee, H. C. (1); Noh, J. M. (1) 1 - Korea Atomic Energy Research Institute, Korea, Republic of
ENC2014-A0131	SYNERGIES AND DIFFERENCES BETWEEN REACTORS FOR SPACE POWER APPLICATIONS AND GENERATION IV SYSTEMS	Stainsby, R. (1); Thomas, M. (2); Hodgson, Z. (1); Tinsley, T. (3) 1 - National Nuclear Laboratory, Chadwick House, Warrington, United Kingdom 2 - National Nuclear Laboratory, Preston Laboratory, Preston, United Kingdom 3 - National Nuclear Laboratory, Central Laboratory, Sellafield United Kingdom
ENC2014-A0187	MATERIAL AND COMPONENT PROGRESS WITHIN ARCHER FOR THE ADVANCED HIGH TEMPERATURE REACTOR	Buckthorpe, D. (1) 1 - University of Manchester, United Kingdom
ENC2014-A0192	ASSESSMENT OF ASTRID REACTOR PIT DESIGN OPTIONS	Verpoest, T. (1); Villedieu, A. (1); Robin, J.-C. (2) 1 - AREVA NP, France 2 - CEA Cadarache, France





Tue 16:50-18:30 Parallel session

**Decommissioning - Room Callelongue 2**

Chair: G. Braehler, NUKEM Technologies, Germany

Co-chair: K. Christie, AMEC Nuclear, United Kingdom

ENC2014-A0081	DECOMMISSIONING OF UNITS 1-4 AT KOZLODUY NUCLEAR POWER PLANT IN BULGARIA	Dishkova, D. (1) 1 - State Enterprise "Radioactive Waste", Bulgaria
ENC2014-A0085	THE USE OF MODERN ENGINEERED POLYMER COATINGS AND PRODUCTS IN DECOMMISSIONING OF NUCLEAR FACILITIES AND PLANT.	Christie, K. (1); Harris, C. (1); Morris, P. (2); Atkinson, P. (2) 1 - AMEC Nuclear, United Kingdom 2 - Protective Coating Solutions Ltd, United Kingdom
ENC2014-A0128	HOW DFD COULD BE THE UNIVERSAL TOOL FOR DECONTAMINATION	Blanchard, E. (1) 1 - ONET TECHNOLOGIES, France
ENC2014-A0186	CLEARANCE OF BUILDINGS FOR DEMOLITION: WAYS TO CLEARANCE ON THE STANDING STRUCTURE FOR COVERED SURFACES AND INACCESSIBLE AREAS	Thränert, S. (1); Riemann, T. (1) 1 - TÜV NORD Nuclear / TÜV NORD EnSys Hannover GmbH & Co. KG, Germany
ENC2014-A0217	UNDERWATER LASER CUTTING: AN APPLICATION TECHNOLOGY FOR DISMANTLING AND SIZE REDUCTION OF IRRADIATED NUCLEAR STRUCTURES	Khan, A. (1); Hilton, P. (1) 1 - TWI Ltd, United Kingdom

Tue 16:50-18:30 Parallel session

**Severe accidents - Room Morgiou**

Chair: R. Garbil, European Commission

Co-chair: D. Popov, NPP Kozloduy, Bulgaria

ENC2014-A0145	PRELIMINARY ANALYSIS OF DEPRESSURIZED ACCIDENT CONDITIONS OF MHTGR USING MELCOR CODE	Huh, C. (1); Jin, C.-Y. (1) 1 - KINS, Korea Republic of
ENC2014-A0175	INVESTIGATION OF RECRITICALITY OF THE MOLTEN CORIUM ON FAST NEUTRONS DURING LATE IN-VESSEL PHASE OF SEVERE ACCIDENT IN LIGHT WATER REACTOR	Popov, D. (1); Runeval, O. (2) 1 - NPP Kozloduy, Bulgaria 2 - KTH Stockholm, Sweden
ENC2014-A0191	THE ROLE OF CFD COMPUTER ANALYSES IN HYDROGEN SAFETY MANAGEMENT	Komen, E. M. J. (1); Visser, D. C. (1); Roelofs, F. (1); Te Lintelo, J.G.T. (2) 1 - Nuclear Research and Consultancy Group (NRG), Netherlands 2 - N.V. Elektriciteits-Productiemaatschappij Zuid-Nederland (EPZ), Netherlands
ENC2014-A0202	WESTINGHOUSE CONTAINMENT FILTERED VENTING SYSTEM - FILTRA-MVSS	Nilsson, P.-O. (1); Kristensson, S. (1); Paulsson, L. (1); Andrén, A. (1) 1 - Westinghouse Electric Sweden AB, Sweden
ENC2014-A0204	GENERATING DEBATE ON ISSUES SURROUNDING THE VENTING OF CONTAINMENT IN THE EVENT OF LOCA TO ENSURE AN OPTIMISED SAFE OUTCOME	Chadwick, C. (1); Jahouel, X. (1); Swain, A. (1) 1 - Porvair Filtration Group Nuclear Services Division , United Kingdom

Tue 16:50-18:30 Parallel session

**Fuel cycle II - Room Sormiou**

Chair: F. Rayment, NNL, UNITED KINGDOM

Co-chair: J. Dewes, Savannah River National Laboratory, United States

ENC2014-A0078	FeCrAl/Zr DUAL LAYER FUEL CLADDING FOR IMPROVED SAFETY MARGIN UNDER ACCIDENT SCENARIOS	Park, D. J. (1); Park, J. H. (1); Jeong, Y. I. (1); Kim, H. G. (1); Park, J. Y. (1); Koo, Y. H. (1) 1 - Korea Atomic Energy Research Institute, Korea, Republic of
ENC2014-A0136	COMPLIANT AIR SHIPMENT OF SPENT NUCLEAR FUEL	Dewes, J. (1); Gajdos, F. (2); Vidovszky, I. (2) 1 - Savannah River National Laboratory, United States 2 - Center for Energy Research, Hungary
ENC2014-A0223	OPTIMISING END OF GENERATION OF MAGNOX REACTORS	Hall, D. (1); Hopper, E. (2) 1 - AMEC Clean Energy, United Kingdom 2 - Magnox UK, United Kingdom



## Wednesday 14 May 2014

Wed 8:30-10:30 Parallel session

### **Plant operations III - Auditorium**

Chair: B. Liébana, IBERDROLA, Spain

Co-chair: K. Daudin, CEA Cadarache, France

ENC2014-A0023	EXPERIMENTAL INVESTIGATION OF SOLID SODIUM - WATER REACTION (SWR) : TESTS RESULTS AND PHENOMENOLOGICAL ANALYSIS	Daudin, K. (1); Beauchamp, F. (1); Proust, C. (2) 1 - CEA CADARACHE, France 2 - INERIS, France
ENC2014-A0074	VOLTAGE CONDITIONS AT MOTOR STARTING IN HOUSEHOLD POWER SUPPLY OF NPPS	Heretik, P. (1) 1 - Slovak University of Technology, Faculty of Electrical Engineering and Information Technology , Slovakia
ENC2014-A0087	GROWING FROM A LOCAL INTO AN INTERNATIONAL NUCLEAR SERVICES PROVIDER – CHALLENGES AND OPPORTUNITIES□	Androjna, A. (1); Storricks, D. (2); Lešnjak, A. (3) 1 - NUMIP d.o.o., Ljubljana, Slovenia 2 - Storricks Enterprises Inc., United States 3 - Q Techna, Ljubljana, Slovenia
ENC2014-A0110	IBERDROLA INGENIERIA EXPERIENCES OF SLUDGE LANCING IN SPANISH NUCLEAR PLANTS	Montoro de Frutos, E. (1); Del Pozo, C. (1); Calderon, N. (1); Perez-Navarro, M. (1) 1 - IBERDROLA INGENIERIA Y CONSTRUCCION, Spain
ENC2014-A0113	SUPPORTING PLANT OPERATION THROUGH COMPUTER BASED PROCEDURES	Martinez, V. (1); Medrano, J. (1); Mendez, J. (1); Ramos, M. (1) 1 - Tecnatom, Spain
ENC2014-A0125	EXPERIENCES IN THE APPLICATION OF HUMAN FACTORS ENGINEERING TO HUMAN-SYSTEM INTERFACE MODERNIZATION	Trueba Alonso, P. (1); Fernández Illobre, L. (1); Ortega Pascual, F. (1) 1 - Tecnatom, Spain



Wed 8:30-10:30 Parallel session

**Safety review - Room Callelongue 1**

Chair: L. Cizelj, Jozef Stefan Institute, Slovenia

Co-chair: M. Bieth

ENC2014-A0008	IMPROVEMENT OF NUCLEAR SAFETY AT CERNAVODA UNIT 1 NPP CONSIDERING RESULTS OF PERIODIC SAFETY REVIEW AND FUKUSHIMA STRESS TESTS	Mosmonea, R. (1) 1 - AMEC NUCLEAR RO, Romania
ENC2014-A0174	RADIATION HEAT TRANSFER MODEL IN A SPENT FUEL POOL BY TRACE CODE	Sanchez-Saez, F. (1); Carlos, S. (1); Villanueva, J. F. (1); Martorell, S. (1) 1 - Universitat Politècnica de València, Spain
ENC2014-A0177	LBLOCA RESULTS UNCERTAINTY USING META MODELS □	Villamizar, M. (1); Sánchez-Sáez, F. (1); Villanueva, J. F. (1); Carlos, S. (1); Martorell, S. (1); Sánchez, A. I. (1) 1 - Universitat Politècnica de València, Spain
ENC2014-A0255	CANDU HEAT SINKS IMPROVEMENTS AS A FOLLOW-UP TO FUKUSHIMA DAIICHI ACCIDENT "A REGULATORY PERSPECTIVE"	Mesmous, N. (1); Harwood, C. (1) 1 - Canadian Nuclear Safety Commission, Canada
ENC2014-A0233	NUCLEAR POWER PLANTS OPERATIONAL EXPERIENCE RELATED TO AGEING RELATED EVENTS	Bieth, M. (1); Zerger, B. (1); Duchac, A. (2) 1 - European Commission, Joint Research Center, Institute for Energy and Transport, Netherlands 2 - International Atomic Energy Agency, Austria



Wed 8:30-10:30 Parallel session

**Waste treatment - Room Callelongue 2**

Chair: P. Gros-Gean, euramco

Co-chair: B. Fletcher, AMEC, United Kingdom

ENC2014-A0064	THE INNOVATIVE PLASMA TILTING FURNACE FOR TREATMENT OF RADIOACTIVE AND PROBLEMATIC CHEMICAL WASTE. FROM PAPER TO REALITY.	Deckers, J. (1); Gonzalez, A. (2); Cano, D. (2) 1 - BELGOPROCESS, Belgium 2 - IBERDROLA INGENIERIA Y CONSTRUCCION, Spain
ENC2014-A0093	A BRIEF HISTORY OF RESIDUAL ALKALI METAL DESTRUCTION DEVELOPMENT IN THE UK	Fletcher, B. (1) 1 - AMEC, United Kingdom
ENC2014-A0208	CARBOWASTE: TREATMENT AND DISPOSAL OF IRRADIATED-GRAPHITE AND OTHER CARBONACEOUS WASTE	Von Lensa, W. (1); Rizzato, C. (1); Banford, A. W. (2); Bradbury, D. (3); Goodwin, J. (3); Grambow, B. (4); Laurent, G. (5); Grave, M. J. (6); Jones, A. N. (7); Piña, G. (8); Vulpius, D. (9) 1 - Forschungszentrum Juelich GmbH, Germany 2 - National Nuclear Laboratory, United Kingdom 3 formerly Bradtec Decon Technologies, United Kingdom 4 - Subatech, France 5 - Électricité de France S.A., France 6 - Doosan Babcock Ltd, United Kingdom 7 - The University of Manchester, United Kingdom 8 - Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas, Spain 9 - Nuclear Engineering Seibersdorf GmbH, Austria
ENC2014-A0213	RADIOACTIVE METALS DISPOSAL AND RECYCLING IMPACT MODELLING	Kemp, N. (1); Lunn, R. (1); Belton, V. (1); Kockar, I. (1) 1 - University of Strathclyde, United Kingdom
ENC2014-A0235	PYRO(HYDRO)LYSIS OF BITUMENIZED RADWASTE	Braehler, G. (1); Noll, T. (1) 1 - NUKEM Technologies GmbH, Germany
ENC2014-A0265	PRISM: WASTE-POWERED. AIR-COOLED.	Powell, D. (1); Loewen, E. (1); Hunt, B. (1) 1 GE Hitachi Nuclear Energy United States





Wed 8:30-10:30 Parallel session

**Non-power applications - Room Morgiou**

Chair: C. Huyskens, Eindhoven University of Technology, The Netherlands

Co-chair: I. Khamis, IAEA

ENC2014-A0020	EFFICIENCY OF FORTUM'S CSTREAT® AND SRTREAT® IN CESIUM AND STRONTIUM REMOVAL IN FUKUSHIMA DAIICHI NPP	Tusa, E. (1) 1 - Fortum, Finland
ENC2014-A0195	DE-SULFURISATION OF PETROLEUM (BENZOTHIO-PHENES) BY CO-60 GAMMA IRRADIATION	Mathuthu, M. (1); Tshivhase, V. (1); Olobatoke, R. Y. (1) 1 - North West University (Mafikeng), Center for Applied Radiation Science and Technology (CARST), South Africa
ENC2014-A0050	VALUE OF NON-ELECTRIC APPLICATIONS OF NUCLEAR ENERGY BEYOND MARKET POTENTIAL	Khamis, I. (1) 1 - International Atomic Energy Agency , Austria
ENC2014-A0054	NON-ELECTRIC APPLICATIONS OF NUCLEAR ENERGY: CURRENT STATUS AND CHALLENGES	Paillere, H. (1); Cameron, R. (1) 1 - OECD Nuclear Energy Agency, France
ENC2014-A0067	PRELIMINARY DESIGN STUDY FOR A LEU-NUCLEAR THERMAL ROCKET	Venneri, P. (1); Kim, Y. (1) 1 - Korea Advanced Institute of Science and Technology, Korea, Republic of
ENC2014-A0083	SCANNER FOR RADIOLOGICAL AND MATERIAL CHARACTERISATION OF LARGE RADIOACTIVE WASTE PACKAGES	Havenith, A. (1); Kettler, J. (1); Thomauske, B. (1); Braehler, G. (1); Sokcic-Kostic, M (1) 1 - Nuclear Engineering and Technology Transfer (NET), RWTH, Germany

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Wed 8:30-10:30 Parallel session

## Fuel cycle - scenarios - Room Sormiou

Chair: L. Van Den Dурpel, AREVA, France

Co-chair: BA Lindley, University of Cambridge, United Kingdom

ENC2014-A0041	EXPLORING NUCLEAR ENERGY SCENARIOS – IMPLICATIONS OF TECHNOLOGY AND FUEL CYCLE CHOICES□	Rayment, F. (1); Mathers, D. (1); Gregg, R. (1) 1 - National Nuclear Laboratory, United Kingdom
ENC2014-A0053	IMPACT OF A SINGLE GENERATION OF URANIUM- AND THORIUM FUELLED RECYCLING REACTORS ON REPOSITORY LOADING	Lindley, B. A. (1); Parks, G. T. (1); Fiorina, C. (2); Gregg, R. (3); Franceschini, F. (4); 1 - University of Cambridge, United Kingdom 2 - Paul Scherrer Institut, Switzerland 3 - National Nuclear Laboratory, United Kingdom 4 - Westinghouse Electric Company LLC, United States
ENC2014-A0082	IMPROVING THE ACTINIDES RECYCLING IN CLOSED FUEL CYCLES, A MAJOR STEP TOWARDS NUCLEAR ENERGY SUSTAINABILITY	Poinsot, C. (1); Grandjean, S. (1); Masson, M. (1); Boullis, B. (2); Warin, D. (2) 1 - CEA, Nuclear Energy Division, Radiochemistry and Processes Department, France 2 - CEA, Nuclear Energy Division, Innovation and Industrial Support Direction, France
ENC2014-A0052	FIRST RESULTS OF (U, PU)O <sub>2</sub> -X SINTERING WITH A CUSTOM MADE MOLYBDENUM DILATOMETER COUPLED WITH AN OXYGEN PARTIAL PRESSURE CONTROL SET-UP	Vaudez, S. (1); Dhers, B. (1) 1 - CEA , France
ENC2014-A0237	TOP- MOX FUEL SOLUTION: STRATEGIES, CHALLENGES, OPPORTUNITIES	Breitenstein, P. (1) ; Vo Van, V. (1) 1 - AREVA NC, France

10:30-10:50 Coffee break

# ENC 2014

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Wed 10:50-12:50 Parallel session

## Used/spent fuel - Room Callelongue 1

Chair: G. Ouzounian, ANDRA, France

ENC2014-A0022	EXPERIMENTAL STUDY OF HEAT REMOVAL PERFORMANCE OF A CONCRETE STORAGE CASK	Bang, K.-S. (1); Yu, S.-H. (1); Lee, J.-C. (1) 1 - Korea Atomic Energy Research Institute, Korea Republic of
ENC2014-A0071	LIFE CYCLE ASSESSMENT OF GEOLOGICAL REPOSITORIES FOR THE FINAL DISPOSAL OF SPENT FUEL IN FINLAND AND SWEDEN	Puhrer, A. (1). Bauer, C. (1) 1 - Paul Scherrer Institute (PSI), Switzerland
ENC2014-A0103	RADIONUCLIDE INVENTORY CALCULATIONS FOR REACTOR COMPONENTS	Bouhaddane, A. (1); Farkas, G. (1); Slugeň, V. (1) 1 - Slovak University of Technology, Slovakia
ENC2014-A0118	A STUDY OF URANIUM EXTRACTION FROM NITRIC ACID MEDIUM COMPARING MEMBRANE BASED SOLVENT EXTRACTION AND BENCH SCALE BATCH EXTRACTION AS EXTRACTION TECHNIQUES	Fourie, M. (1); Meyer, W. C. M. H. (1); Krieg, H. M. (2); Van der Westhuizen, D. W. (2) 1 - South African Nuclear Energy Corporation (NECSA), South Africa 2 - North West University, South Africa
ENC2014-A0158	CIGÉO GEOLOGICAL DISPOSAL FOR HIGH-LEVEL RADIOACTIVE WASTE IN FRANCE	Ouzounian, G. (1); Bolia, J. (1) 1 - ANDRA, France
ENC2014-A0236	SAFETY ASPECTS OF DRY SPENT FUEL STORAGE AND SPENT FUEL MANAGEMENT	Botsch, W. (1); Smalian, S. (1); Hinterding, P. (1); Völzke, H. (2); Wolff, D. (2); Kasperek, E.-M. (2) 1 - TÜV NORD EnSys Hannover GmbH & Co. KG, Germany 2 - BAM Federal Institute for Materials Research and Testing, Germany

The logo for the European Nuclear Conference 2014, featuring the letters 'ENC' in a large, stylized white font on a dark blue background, with '2014' in a smaller font below it.

EUROPEAN NUCLEAR CONFERENCE



Wed 10:50-12:50 Parallel session

**RT - simulation & nuclear data - Room Callelongue 2**

Chair: A. Mueller, CNRS-IN2P3, France

Co-chair: A. Lyoussi, CEA, France

ENC2014-A0040	IN-CORE PROGRAM FOR ON LINE MEASUREMENTS OF NEUTRON, PHOTON AND NUCLEAR HEATING PARAMETERS INSIDE JULES HOROWITZ MTR REACTOR	Lyoussi, A. (1); Reynard-Carette, C. (2) 1 - CEA, France 2 - Aix-Marseille University, Laboratoire IM2NP UMR7334, France
ENC2014-A0076	SIMULATION OF CRITICALITY CONTROL IN AQUEOUS HOMOGENEOUS REACTOR FOR MO-99 PRODUCTION USING MCNP5	Isnaeni, A. (1); Aljohani, M. S. (1); Aboalfaraj, T. G. (1); Bhuiyan, S. I. (1); Yusuf, M. (1) 1 - King Abdulaziz University, Saudi Arabia
ENC2014-A0107	DEVELOPMENT OF A MONTE CARLO-DETERMINISTIC HYBRID 2-STEP METHOD FOR FAST REACTOR ANALYSIS	Heo, W. (1); Kim, Y. (1) 1 - Korea Advanced Institute of Science and Technology, Korea, Republic of
ENC2014-A0196	IMPROVED METHODS FOR REACTIVITY FEEDBACK AND UNCERTAINTY CALCULATIONS	Bouret, C. (1); Buiron, L. (1); Rimpault, G. (1) 1 - Commissariat à l'Energie Atomique et aux Energies Alternatives, CEA, DEN, DER, SPRC, Cadarache, France
ENC2014-A0219	THE DARWIN PACKAGE FOR FUEL CYCLE APPLICATIONS	San-Felice, L. (1); Eschbach, R. (1); Bourdot, P. (1); Vallet, V. (1) 1 - CEA/DEN/DER/SPRC, France

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Wed 10:50-12:50 Parallel session

## **Plant operations IV - Room Morgiou**

Chair: D. De Novellis, Westinghouse, Belgium

Co-chair: J. Hermansky, VUJE, Slovakia

ENC2014-A0143	DATA DRIVEN APPROACHES FOR DIAGNOSTICS AND OPTIMIZATION OF NPP OPERATION	Pliska, J. (1); Machat, Z. (1) 1 - I & C Energo a.s., Czech Republic
ENC2014-A0162	TEMPERATURE ANALYSIS APPLYING BUOYANCY EFFECT TO A MAIN STEAM LINE BREAK OUTSIDE CONTAINMENT	Kim, T. M. (1); Hong, S. M. (1); Choi, C. J. (1); Sohn, J. J. (1) 1 - KEPKO Engineering & Construction Company Inc., Korea, Republic of
ENC2014-A0201	NON-CHEMICAL WATER PURIFICATION – A WESTINGHOUSE/WALLENIUS PRODUCT FOR NUCLEAR POWER PLANT NEEDS	Götberg, J. (1); Andrén, A. (1) 1 - Westinghouse Electric Sweden AB, Sweden
ENC2014-A0215	PREVENTIVE ACID CHEMICAL CLEANING OPERATION (PACCO) ON STEAM GENERATOR IN FRENCH NUCLEAR POWER PLANTS	Traino, J. (1); Bigoin, G. (1); Rottner, B. (1); Ruiz Martinez, J.T. (1); Vedova, E. (1) 1 - Polytechnical University of Valencia, Spain
ENC2014-A0218	WEOD-S: WESTINGHOUSE EXPANDED OPERATING DOMAIN STABILITY SOLUTION	Rotander, C. (1); Blaisdell, J. (2); Anderson, D. (2); Kumar, V. (2); Stier, D. (2); Chu, E. (2) 1 - Westinghouse Electric Sweden, Sweden 2 - Westinghouse Electric Company, United States
ENC2014-A0242	PRIMARY SYSTEM HYDRAULIC CHARACTERISTICS AFTER MODIFICATION OF REACTOR COOLANT PUMPS` IMPELLER WHEELS AT BOHUNICE NPP EXECUTED IN 2012 AND 2013	Zavodsky, M. (1); Hermansky, J. (1) 1 - VUJE, Inc., Slovakia



Wed 10:50-12:50 Parallel session

**Education and training II - Room Sormiou**

Chair: I. Hagenlocher, Kraftanlagen Heidelberg, Germany

Co-chair: E. Mäki, Aalto University, Finland

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ENC2014-A0011	ASSESSMENT METHOD FOR ANALYZING AND DEVELOPING HUMAN RESOURCE MANAGEMENT PRACTICES IN NUCLEAR POWER INDUSTRY	Mäki, E. (1); Pahkin, K. (2); Lindström, S. (2); Kurki, A.-L. (2) 1 - Aalto University, Finland 2 - Finnish Institute of Occupational Health, Finland
ENC2014-A0060	TALISMAN: AN EDUCATION AND TRAINING NETWORK IN ACTINIDE SCIENCES IN EUROPE	Bourg, S. (1); Poinssot, C. (1) 1 - CEA, Nuclear Energy Division, Radiochemistry and Processes Department, France
ENC2014-A0116	THE FOUNDATIONS FOR THE IMPLEMENTATION OF ECVET IN THE NUCLEAR ENERGY SECTOR	Ceclan, M. (1); Chenel Ramos, C. (1) 1 - European Commission. DG Joint Research Center. Institute for Energy and Transport, Netherlands
ENC2014-A0119	NEXT GENERATION OF HUMAN RESOURCES FOR GEN (GENERATION) III+ NEW BUILD PROJECTS	Schoenfelder, C. (1); Baltin, G. (1); Glaubrecht, S. (1) 1 - AREVA GmbH, Germany
ENC2014-A0157	THE BELGIAN NUCLEAR HIGHER EDUCATION NETWORK: THE EVOLUTION OF AN ACADEMIC PROGRAMME IN NUCLEAR ENGINEERING.	Berkvens, T. (1); Coeck, M. (1) 1 - SCK•CEN Academy for Nuclear Science and Technology, Belgium
ENC2014-A0221	REFUELING MACHINE SIMULATOR FOR USE IN TRAINING FUEL HANDLING OPERATORS AND SUPERVISORS	Guijarro, M. (1); Skrzydlewski, F. (2); Ajovalasit, P.-J. (3) 1 - EDF CIPN, France 2 - CETIC, France 3 - CORYS T.E.S.S., France

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12:50-13:40 Lunch



13:40-15:00

Plenary session:

**Issues & challenges for the future of nuclear**

Chair: Noel Camarcat, ENS President

**Challenges for the future of nuclear fission**

Christoph Behar, CEA, France

**Top-down workforce demand extrapolation based on an EC Energy Roadmap scenario**

Ferry Roelofs, NRG, The Netherlands

**OECD/NEA study on the economics of the back-end of the nuclear fuel cycle**

Ron Cameron, OECD Nuclear Energy Agency

15:00-15:30

**Closing session**

Chair: Noel Camarcat, ENS President

With

Ingeborg Hagenlocher, President ENS High Scientific Council

Milo Alani, Chair ENS Young Generation



## Posters

### Nuclear in the Civil Society

ENC2014-A0010	NUCLEAR IN THE CIVIL SOCIETY	Sidhu, G. A. S. (1) 1 - GGS Institute of Information Communication Technology India, India
ENC2014-A0068	FULL SPECTRUM ANALYSIS IN ENVIRONMENTAL MONITORING	Reinhardt, S. (1); Hartmann, S. (1); Pimpl, R. (1) 1 - ENVINET GmbH, Germany
ENC2014-A0094	THE IMPACT OF THE MULTILATERAL APPROACH TO THE NUCLEAR FUEL CYCLE IN MALAYSIA'S NUCLEAR FUEL CYCLE POLICY	Baharuddin, B. (1); Ferdinand, P. (1) 1 - University of Warwick, United Kingdom

### Non-power applications

ENC2014-A0176	SYSTEMATIC STUDY OF EXCITATION FUNCTIONS OF DEUTERON INDUCED NUCLEAR REACTIONS FOR DIFFERENT APPLICATIONS AND REACTION MODEL CODE DEVELOPMENTS	Ditrói, F. (1); Tárkányi, F. (1); Takács, S. (1); Király, B. (1); Csikai, J. (1); Hermanne, A. (2); Baba, M. (3); Ignatyuk, A. V. (4); Qaim, S. M. (5) 1 - Institute for Nuclear Research, Hungarian Academy of Sciences (ATOMKI), Hungary 2 - Cyclotron Laboratory, Vrije Universiteit Brussel (VUB), Belgium 3 - Cyclotron and Radioisotope Center (CYRIC), Japan 4 - Institute of Physics and Power Engineering (IPPE), Russian Federation 5 - Institut für Nuklearchemie (INC), Forschungszentrum Jülich GmbH, Germany
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### New Build

ENC2014-A0130	IS LCOE AN EFFECTIVE TOOL TO COMPARE NUCLEAR PROJECTS TO OTHER ENERGY SOURCES?	Lecomte, M. (1); Vignon, D. (1) 1 - NUCADVISOR, France
ENC2014-A0135	GLOBAL INFORMATION MANAGEMENT SYSTEM IMPLEMENTATION IN NUCLEAR NEW BUILD PROJECTS	Joret, G. (1); Libessart, M. (1) 1 - airbus defence and space, France
ENC2014-A0144	CONTRACT GOVERNANCE IN NUCLEAR VALUE CHAINS: BEYOND THE BILLION DOLLAR DISPUTE OF OLKILUOTO 3	Saarnilehto, A. (1); Salminen, J. (1); Urho, M. (1) 1 - University of Turku Faculty of Law, Finland



## Life Science Applications

ENC2014-A0171	EVALUATION OF DIFFERENT REACTION METHODS RESULTING IN THE FORMATION OF AgI125 FOR USE IN BRACHYTHERAPY SOURCES	Daruich de Souza, C. (1); Dos Santos Peleias jr., F. (1); Chuery Martins Rostelato, M. E. (1); Zeituni, C. A. (1); Gimenes Benega, M. A. (1); Tiezzi, R. (1); Rodrigues de Mattos, F. (1); Teiga Rodrigues, B. (1); Batista de Oliveira, T. (1); Feher, A. (1); Moura, J. A. (1); Da Costa, O. L. (1) 1 - IPEN - Instituto de Pesquisas Energéticas e Nucleares, Brazil
ENC2014-A0172	DEVELOPMENT AND CHARACTERISATION OF IRIDIUM-192 SEEDS USED IN BRACHYTHERAPY TREATMENT FOR OCULAR TUMORS	Dos Santos Peleias Junior, F. (1); Daruich de Souza, C. (1); Alberto Zeituni, C. (1); Chuery Martins Rostelato, M. E. (1); Rodrigues de Mattos, F. (1); Gimenes Benega, M. A. (1); Teiga Rodrigues, B. (1); Batista de Oliveira, T. (1); Tiezzi, R. (1); Feher, A. (1); Da Costa, O. L. (1); De Moura, J. A. (1) 1 - IPEN - Instituto de Pesquisas Energéticas e Nucleares, Brazil
ENC2014-A0173	DEVELOPMENT OF RADIOACTIVE SOURCES FIXATED IN EPOXY MATRIX TO VERIFICATE NUCLEAR MEDICINE EQUIPMENTS	Gimenes Benega, M. A. (1); Daruich de Souza, C. (1); Alberto Zeituni, C. (1); Chuery Martins Rostelato, M. E. (1); Rodrigues de Mattos, F. (1); Dos Santos Peleias junior, F. (1); Teiga Rodrigues, B. (1); Batista de Oliveira, T. (1); Tiezzi, R. (1); Feher, A. (1); Da Costa, O. L. (1); De Moura, J. A. (1) 1 - IPEN - Instituto de Pesquisas Energéticas e Nucleares, Brazil
ENC2014-A0189	PRESENT STATUS AND OPPORTUNITIES OF NEUTRON CAPTURE THERAPY IN UZBEKISTAN	Abdullaeva, G. (1); Juraeva, G. (1); Kim, A. (1); Koblik, Y. (1); Kulabdullaev, G. (1); Saytjanov, S. (1) 1 - Institute of Nuclear Physics Uzbekistan Academy of Science, Uzbekistan
ENC2014-A0231	MAPPING OF THE RADIATION FIELD OF A MAMMOGRAPHY EQUIPMENT USING MOLYBDENUM AND RHODIUM FILTERS.	Barreira, J. (1); Vivolo, V. (1) 1 - IPEN/CNEN - USP SP, Brazil
ENC2014-A0246	FAST AND EFFECTIVE DETERMINATION OF 90SR IN HIGH VOLUMES WATER SAMPLES	Dulanská, S. (1); Basarabová, B. (2) 1 - Comenius University in Bratislava, Slovakia 2 - Slovak Nuclear Society (SNUS), Slovakia
ENC2014-A0264	NEW TECHNICAL FACILITIES TO OPTIMISE NEUTRON ACTIVATION ANALYSIS	Ismail, S. (1) 1 - Atomic Institute, Vienna University of Technology, Austria



## Plant operation and safety

ENC2014-A0070	MAJOR DESIGN FEATURES OF HMIS ARCHITECTURE	Kim, J.-K. (1); Kim, J. (1); Cho, B. (1); Park, J. (1); Song, D.-H. (1) 1 - KEPCO-ENC, Korea, Republic of
ENC2014-A0099	EVALUATION FOR SMALL BREAK LOSS OF COOLANT ACCIDENT OF ATLAS FACILITY	Huh, B.-G. (1); Kang, D.-G. (1); Yoo, S. H. (1); Seul, K.-W. (1) 1 - Korea Institute of Nuclear Safety, Korea, Republic of
ENC2014-A0105	COMPLETE I&C MODERNISATION OF THE 1300MW FRENCH FLEET (20 UNITS) BY ROLLS-ROYCE	Desgeorge, R. (1) 1 - Rolls-Royce, France
ENC2014-A0106	ROLLS-ROYCE I&C LONG TERM SUPPORT : A DEDICATED SOLUTION TO MANAGE PLANT CONDITION, OPTIMIZE OPERATING LIFE AND MAXIMIZE PLANT VALUE WHILE IMPROVING SAFETY	Desgeorge, R. (1) 1 - Rolls-Royce, France
ENC2014-A0205	NUCLEAR POWER PLANT CRITICALITY SAFETY ENHANCEMENT BY SPENT FUEL POOL LOADING OPTIMIZATION IN CASE OF BEYOND DESIGN BASIS EXTERNAL EVENTS	Fabry, I. (1); Schwarz, M. (1); Schulze-Frerichs, K. (1) 1 - NIS Ingenieurgesellschaft mbH, Germany
ENC2014-A0220	STUDIES ON THE CHEMICAL BEHAVIOUR OF SODIUM FIRE AEROSOLS DURING ATMOSPHERIC DISPERSION	Plantamp, A. (1); Gilardi, T. (1); Muhr, H. (2); Perrais, C. (1) 1 - CEA/DEN, Cadarache DTN/STPA/LIPC, France 2 - ENSIC/Université de Lorraine, LRGP CNRS UMR 7274, France
ENC2014-A0238	OPERATING GAINS ACHIEVED BY A NEW GENERATION OF REMOTELY CONTROLLED MANIPULATORS	Djedidi, A. (1); Selliez, C. (1); Malcolm, F. (1) 1 - GETINGE LA CALHENE, France
ENC2014-A0241	INCREASING OPERATION EFFICIENCY AND WORKFORCE PRODUCTIVITY WITHOUT COMPROMISING SAFETY USING AN INTEGRATED MOBILE SOLUTION	Vouille, M. (1); Gex, P. (2) 1 - Ventyx, an ABB company, France 2 - Ventyx, an ABB company, United States
ENC2014-A0243	EFFECTIVENESS OF HYDROGEN ION IMPLANTATION APPROACH TO RPV NEUTRON EMBRITTLEMENT STUDY	Pecko, S. (1); Sojak, S. (1); Slugeň, V. (1) 1 - Institute of Nuclear and Physical Engineering, Slovak University of Technology in Bratislava, Slovakia
ENC2014-A0261	LASER INDUCED CHEMICAL VAPOUR DEPOSITION OF FCC 3C-SILICON CARBIDE FOR NUCLEAR ENERGY APPLICATIONS	Paul, J. (1) 1 - The University of Manchester, United Kingdom





## End of use management

ENC2014-A0037	DETERMINATION OF C-14 ON ION EXCHANGE RESINS GENERATED FROM CERNAVODA NPP	Costel Danut, B. (1); Liliana, B. (1); Marius, I. (1) 1 - Institute for Nuclear Research, Romania
ENC2014-A0109	AN EVAPORATOR LIFETIME ASSESSMENT	Potter, D. (1); Moorcroft, M. (1); Thomson, D. (1); Harrison, L. (1); Trewick, N. (1); Shackelford, S. (1) 1 - National Nuclear Laboratory, United Kingdom
ENC2014-A0121	HIGH PERFORMANCES NUCLEAR CONTAINERS	Mucha, J.-P. (1) 1 - ONET TECHNOLOGIES, France
ENC2014-A0123	SOGEVAL : A UNIQUE CAPACITIVES FOR THE TREATMENT OF RADIOACTIVE WASTES	Mucha, J.-P. (1) 1 - ONET TECHNOLOGIES, France
ENC2014-A0137	NUCLAB MARCOULE: AN ANALYTICAL LABORATORY DEDICATED TO SUPPORT WASTE MANAGEMENT	Dugne, O. (1); Bec-Espitalier, L. (1); Rosen, J. (1) ; Michel-Bechet, N. (1) 1 - CEA, DEN, MARCOULE , France
ENC2014-A0170	PROPOSAL FOR RADIOACTIVE LIQUID WASTE MANAGEMENT IN A BRACHYTHERAPY SEALED SOURCES DEVELOPMENT LABORATORY	Daruich de Souza, C. (1); Dos Santos Peleias jr., F. (1); Chuery Martins Rostelato, M. E. (1); Zeituni, C. A. (1); Gimenes Benega, M. A. (1); Tiezzi, R. (1); Teiga Rodrigues, B. (1); Batista de Oliveira, T. (1); Moura, J. A. (1); Feher, A. (1); Da Costa, O. L. (1); Rodrigues de Mattos, F. (1) 1 - Instituto de Pesquisas Energéticas e Nucleares, Brazil
ENC2014-A0193	TOWARDS A SAFETY CASE FOR THE USE OF LASER CUTTING IN NUCLEAR DECOMMISSIONING	Hilton, P. (1) 1 - TWI Ltd, United kingdom
ENC2014-A0198	ZONING AND SIZING OF THE STORAGE BUILDINGS OF USED-UP STEAM GENERATORS - CONNECTION BETWEEN RADIATION PROTECTION AND CIVIL ENGINEERING	Bonnefon, J. (1); Canal, T. (1); Routtier, J. (1); Michoux, X. (1) 1 - EDF, France
ENC2014-A0207	EVEN BETTER THAN 3D MODELLING: BUILDING INFORMATION MODELLING (BIM)	Jeannaux, S. (1) 1 - ONET TECHNOLOGIES, France
ENC2014-A0251	ADSORPTION OF URANIUM FROM AQUEOUS SOLUTION USING SLOVAK HDTMA-BENTONITES	Krajnak, A. (1); Viglasova, E. (1); Galambos, M. (1); Roszkopfova, O. (1); Adamcova, R. (1) 1 - Comenius University, Slovakia



## Reactor technologies

ENC2014-A0024	INNOVATIVE OPERABILITY CONCEPT ON ASTRID GENERATION IV REACTOR	Libessart, M. (1); Cormier, P. (1); Elegbede, C. (1); Cazenove, B. (1) 1 - Airbus defence and space, France
ENC2014-A0044	ON CATHOLYTE APPLICATION FOR HYDROGEN WATER CHEMISTRY IN PWR	Shimkevich, A. (1) 1 - National Research Center "Kurchatov Institute", Russian Federation
ENC2014-A0090	BENCHMARK CRITICALITY EXPERIMENTS FOR FAST FISSION CONFIGURATIONS WITH HIGH ENRICHED NUCLEAR FUEL	Sikorin, S. (1); Mandzik, S. (1); Polazau, S. (1); Hryharovich, T. (1) 1 - The Joint Institute for Power and Nuclear Research - Sosny of National Academy of Sciences of Belarus, Belarus
ENC2014-A0150	SEALS FOR NUCLEAR REACTORS AND INDUSTRIAL SYSTEMS USING MOLTEN FLUORIDE SALTS.	Svoboda, P. (1); Toman, P. (1); Marecek, M. (2); Snajdarek, L. (1) 1 - MICo s.r.o., Třebíč, Czech Republic 2 - Research Centre Rez, Husinec-Řež, Czech Republic
ENC2014-A0206	ISOBAR YIELDS FROM 235U AND 239PU FISSION INDUCED BY THERMAL NEUTRONS	Abdullaeva, G. (1); Koblik, Y. (1); Morozov, A. (1); Nebesny, A. (1); Pikul, V. (1) 1 - Institute of Nuclear Physics, Uzbekistan
ENC2014-A0245	PROJECT OF NEW TANDEM-DRIVEN NEUTRON FACILITY IN SLOVAKIA	Strišovská, J. (1) 1 - Institute of Physics, Slovak Academy of Sciences, Slovakia
ENC2014-A0262	MECHANISM STUDY OF FREEZE-VALVE FOR MOLTEN SALT REACTOR (MSR)	Qinhua, Z. (1); Zhongfeng, T. (1); Liangcheng, L. (1); Yan, L. (1); Yuan, F. (1); Leidong, X. (1) 1 - Shanghai Institute of Applied Physics, Chinese Academy of Sciences, China
ENC2014-A0263	DEVELOPMENT OF FLEXIBLE SUPPORT FOR MOLTEN SALT REACTOR	Xie, M. (1) 1 - Shanghai Institute of Applied Physics, Chinese Academy of Sciences, China



## The fuel cycle

ENC2014-A0016	FABRICATION OF POWDER FROM DUCTILE URANIUM ALLOYS FOR USE AS NUCLEAR DISPERSION	Durazzo, M. (1); Leal Neto, R. M. (1); Rocha, C. J. (1); Carvalho, E. F. U. (1); Riella, H. G. (2) 1 - Nuclear and Energy Research Institute - IPEN-CNEN/SP, Brazil 2 - Chemical Engineering Department, Santa Catarina Federal University - UFSC, Brazil
ENC2014-A0065	IRRADIATION TESTING OF COATED PARTICLE FUEL AT HANARO	Kim, B. G. (1); Cho, M. S. (1); Kim, Y. W. (1) 1 - KAERI (Korea Atomic Energy Research Institute), Korea, Republic of
ENC2014-A0066	DEVELOPMENT OF MATHEMATICAL MODEL OF H <sub>2</sub> O-HNO <sub>3</sub> -UO <sub>2</sub> (NO <sub>3</sub> ) <sub>2</sub> -TBP-DILUENT SYSTEM. NEW RESULTS	Ochkin, A. (1); Gladilov, D. (1); Nekhaevskiy, S. (1) 1 - D.Mendeleev University of Chemical Technology of Russia. Russian Federation
ENC2014-A0073	FABRICATION OF DENSE AMBB FROM CO-CONVERTED OXALATES	Delahaye, T. (1); Horlait, D. (1); Lebreton, F. (1); Caisso, M. (1); Gauthé, A. (2); Arab-Chapelet, B. (2); Picart, S. (2) 1 - CEA, DEN, DTEC/SDTC/LEMA, France 2 - CEA, DEN, DRCP/SERA/LCAR, France
ENC2014-A0101	HYDRIDE REORIENTATIONS IN ZR-NB ALLOY CLADDINGS DURING COOLDOWN UNDER DRY STORAGE CONDITIONS	Kim, K.-T. (1); Kim, M.-S. (1); Min, S.-J. (1); Won, J.-J. (1) 1 - Dongguk University, Korea, Republic of
ENC2014-A0140	ONE HUNDRED AND EIGHTY TRANSPORTATION OF NUCLEAR FUEL BUNDLES - EXPERIENCE GAINED BY NUCLEAR FUEL PLANT PITESTI	Tiberiu, I. (1) 1 - Nuclear Fuel Plant Pitesti, Romania
ENC2014-A0185	CHARACTERIZATION OF FAST REACTOR METALLIC FUEL FOR MINOR ACTINIDES TRANSMUTATION	Capriotti, L. (1); Inagaki, K. (2); Papaioannou, D. (1); Bremier, S. (1); Ohta, H. (2); Ogata, T. (2); Rondinella, V. (1) 1 - European Commission, Joint Research Centre, Institute for Transuranium Elements, Germany 2 - Central Research Institute of Electric Power Industry, Japan
ENC2014-A0200	IN-SITU HIGH TEMPERATURE X-RAY DIFFRACTION STUDY OF CERIUM OXIDE IN HIGHLY REDUCING CONDITIONS. EXPERIMENTAL METHODOLOGY FOR INVESTIGATING ACTINIDE-DIOXIDES PHASE DIAGRAMS IN HYPO-STOICHIOMETRIC DOMAINS.	Strach, M. (1); Belin, R. C. (1); Richaud, J.-C. (1); Rogez, J. (2) 1 - CEA, DEN, DEC, SPUA, LMPC, Cadarache F, France 2 - IM2NP, UMR 6122, CNRS - Aix Marseille Université, France
ENC2014-A0203	FABRICATION OF MIXED URANIUM-PLUTONIUM CARBIDE FUEL PELLETS WITH A LOW OXYGEN CONTENT AND AN OPEN-PORE MICROSTRUCTURE	Duguay, C. (1); Pelloquin, G. (1) 1 - CEA/DEN/DEC/SPUA, France

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ENC2014-A0226	FUEL ENGINEERING ACTIVITIES ON FUEL OPTIMIZATION FOR THE ARGENTINE PHWR'S	Bussolini, A. (1); Tripodi, P. (1); Alvarez, L. (1) 1 - National Commission on Atomic Energy (CNEA), Argentina
ENC2014-A0229	DEVELOPMENT AND APPLICATION OF THE BISON FUEL PERFORMANCE CODE TO THE ANALYSIS OF FISSION GAS BEHAVIOR	Pastore, G. (1); Hales, J. D. (1); Novascone, S. R. (1); Perez, D. M. (1); Spencer, B. W. (1); Williamson, R. L. (1) 1 - Idaho National Laboratory, United States
ENC2014-A0247	THE NUMERICAL APPROACH OF THERMAL-HYDRAULIC PHENOMENA IN WIRE-WRAPPED FUEL PINS	Choi, C. (1); Ha, K. (1); Jeong, H. (2) 1 - Korea Atomic Energy Research Institute, Korea, republic of 2 - Sejong University, Korea, Republic of
ENC2014-A0252	CFD-SIMULATION OF URANIUM HEXAFLUORIDE DURING PHASE CHANGE	Pakarinen, T. (1) 1 - Platom, Finland
ENC2014-A0253	REPRODUCTION AND CHARACTERIZATION OF BLISTERS IN UNIRRADIATED PWR FUEL CLADDING	Martin-Rengel, M. A. (1); Ruiz-Hervais, J. (1); Rico, A. (2); Rodriguez, J. (2); Gomez, F. J. (3) 1 - Departamento de Ciencia de los Materiales, UPM, E.T.S.I. Caminos, Spain 2 - DIMME, Departamento de Tecnología Mecánica, Universidad Rey Juan Carlos, Spain 3 - amsimulation, Spain



## Education, training and knowledge management

ENC2014-A0026	THE NEED OF EDUCATION IN NUCLEAR COMPONENT MANUFACTURING. AN EXAMPLE	Veron, P. (1); Incera, P. (1); Grandal, R. (1); Elices, J. (1) 1 - Equipos Nucleares S.A., Spain
ENC2014-A0112	THE WORLD NUCLEAR UNIVERSITY: FACING THE LEADERSHIP CHALLENGE.	Wieland, P. (1); Leslie, I. (1) 1 - World Nuclear University, United Kingdom
ENC2014-A0141	UPGRADING OF RADIOPROTECTION EDUCATION AND TRAINING IN NUCLEAR FUEL PLANT PITESTI ROMANIA	Tiberiu, I. (1); Vasilica, O. (1) 1 - Nuclear Fuel Plant Pitesti, Romania
ENC2014-A0142	SCK•CEN ACADEMY TRAINING OF THE ALARA SPECIALIST USING THE VISIPLAN PLANNING TOOL	Coeck, M. (1); Vermeersch, F. (1); Nijis, R. (1) 1 - SCK•CEN, Belgium
ENC2014-A0148	NUCLEAR EDUCATION PROJECTS AT THE BELGIAN SCK•CEN ACADEMY	Coeck, M. (1); Berkvens, T. (1); Clarijs, T. (1) 1 - SCK•CEN, Belgium
ENC2014-A0149	TRAINING OF NUCLEAR PROFESSIONALS BY THE SCK•CEN ACADEMY	Coeck, M. (1); Berkvens, T. (1); Clarijs, T. (1) 1 - SCK•CEN, Belgium
ENC2014-A0188	ISIS TRAINING REACTOR: A REACTOR DEDICATED TO EDUCATION AND TRAINING FOR STUDENTS AND PROFESSIONALS	Foulon, F. (1); Badeau, G. (1); Lescop, B. (1); Wohleber, X. (2) 1 - CEA, National Institute for Nuclear science and Technology, France 2 - CEA, Nuclear Reactors and Services Department, France
ENC2014-A0197	REQUIREMENTS MANAGEMENT AT WESTINGHOUSE	Gustavsson, H. (1) 1 - Westinghouse Electric Company, Sweden
ENC2014-A0214	DEVELOPING NEW NUCLEAR CURRICULA FOR GEN IV NEEDS	Petre, G. (1); Pavel, G. L. (1) 1 - University Polytechnica of Bucharest, Romania
ENC2014-A0224	OPERATOR TRAINING ON SEVERE ACCIDENT AFTER FUKUSHIMA: A REAL-LIFE EXAMPLE	Yarbrough, J. (1); Panfil, B. (2) 1 - Xcel Energy, United States 2 - CORYS Thunder Inc, United States