Monday 17 October 2016

18:00 Registration
Welcome reception

Tuesday 18 October 2016

08:30 08:40 Welcome address from INL
J. Law
08:40 08:50 Welcome address from NEA
S. Cornet

SESSION 1: International and national Programmes
Chair: T. Todd

08:50 09:05 OECD/NEA activities related to P&T
S. Cornet/N. Chauvin
09:05 09:20 Ongoing activities on P&T at IAEA
A. Gonzalez-Espartero, IAEA
09:20 09:35 Overview of the US Material Recovery and Transmutation Activities
P. Paviet, DOE
09:35 09:50 An Update on Nuclear Energy and P&T programmes within the UK
F. Rayment, NNL
09:50 10:20 COFFEE

SESSION 2: Fuel Cycle Strategies and transition scenarios
Chairs: E. Touron & D. Matthers

10:20 10:45 Fuel Strategies and scenarios in Japan (Title TBD)
TBD
10:45 11:10 Fuel Cycle analysis of a long term nuclear power scenario for the UK
D. Mathers (NNL, UK)
11:10 11:35 Analysis of fast reactor deployment scenarios in the French nuclear power fleet
E. Touron (CEA, France)
11:35 12:00 Analysis of fuel cycle strategies and U.S. transition scenarios
T. Taiwo (ANL, USA)
12:00 13:15 LUNCH

SESSION 2: Fuel Cycle Strategies and transition scenarios

13:15 13:40 Economics of Fuel Cycle Deployment
E. Hoffman (ANL, USA)
13:40 14:05 The Effects of the Uncertainty of Input Parameters on Nuclear Fuel Cycle Scenario Studies
M. Tiphine (EGAFCS, NEA)
14:05 14:30 Presentations of posters for session 2
3 min. * 6 posters
14:30 14:50 COFFEE
SESSION 3: Transmutation systems and infrastructures
Chair: T. Taiwo & N. Stauff

14:50  15:15  Program Overview on Development of Innovative TRU Burning Fast Reactor Cycle with Uranium-free Fuel
K. Arie (Toshiba Corporation, Japan)

15:15  15:40  R&D on Heavy Liquid Metal Technology in Support of MYRRHA: State-of-the-art
A. Aerts (SCK-CEN, Belgium)

15:40  16:05  Proposal for a First ADS of Significant Power (> 1MW) at the Institute for Nuclear Research of the Russian Academy of Sciences
S. Sidorkin (INR RAS, Russia)

16:05  16:30  MATADOR: an innovative sub-assembly design for Heterogeneous Minor Actinides Transmutation
L. Buiron (CEA, France)

16:30  16:55  Transmutation Scoping Studies for a Chloride Molten Salt Reactor
F. Heidet/B. Feng (ANL, USA)

16:55  17:20  Investigation of Beam Window Structure for Accelerator Driven System with Subcriticality Adjustment
T. Sugawara (JAEA, Japan)

17:20  17:45  Am-Bearing Blanket Transmutation Strategies in Sodium-cooled Fast Reactors
N. Stauff (ANL, USA)

17:45  18:15  Presentations of posters for session 3
3 mins*9 posters

19:15  Conference Dinner

Wednesday 19 October 2016

Session 1: International and national Programmes
Chair: Y-J. Choi

08:30  08:45  France
E. Touron, CEA

08:45  09:00  Development of safe and responsible concepts for advanced nuclear fuel cycles in the EU
JP. Glatz, JRC-ITU

09:00  09:15  Review of Research Activities on P&T in Japan
K. Tsujimoto, JAEA

Session 4: Transmutation fuels and targets
Chair: N. Chauvin & L. Ramond (TBC)

09:15  09:40  Advances in Metallic Fuels for High Burnup and Actinide Transmutation
S. Hayes (INL, USA)

09:40  10:05  State of the art report on innovative Fuels
N. Chauvin (EGIF, NEA)

10:05  10:35  COFFEE

10:35  11:00  Microstructural characterization of metallic transmutation fuels
A. Aitkaliyeva (INL, USA)

11:00  11:25  Overview of PIE results on Minor Actinide bearing fuels in FUTURIX-FTA international collaboration
D. Freis (EU)
Thursday, 20 October 2016

Session 1: International and national programmes
Chair: I-S. Hwang

08:30  08:45  Fuel cycle activities in Belgium. MYRRHA project status and new implementation plan
H. Ait Abderrahim, SCK-CEN

08:45  09:00  Development Activities for Recycling Spent Nuclear Fuel in Korea
J.H. Baek, KAERI

09:00  09:15  Russia
TBD

09:15  09:30  China
TBD

09:30  10:00  COFFEE

Session 2: General
Chair: TBD

10:00  10:20  Fuel cycle activities at INL
L. Capriotti on behalf of J. Harp (INL, USA)

10:20  10:40  COFFEE

Session 3: Platforms for Nuclear Fuel Cycle
Chair: TBD

10:40  10:50  \textit{Preliminary Post-irradiation Examination Comparison between AFC-1 and FUTURIX-FTA}
L. Capriotti on behalf of J. Harp (INL, USA)

10:50  11:10  \textit{Post-irradiation Examination of Fast Reactor Metal Fuel for Minor Actinide Transmutation}
H. Ohta (CRIEPI, Japan)

11:10  11:30  LUNCH

Session 4: Transmutation fuels and targets

13:30  13:55  Fabrication of $(U,Ce)O_2$ and $(U,Am)O_2$ pellets with controlled porosity from oxides microspheres
L. Ramond (CEA, France)

13:55  14:55  Presentations of posters for session 4&6
3 mins*(7+13) posters

14:55  15:25  COFFEE

Session 5: Waste management for P&T
Chair: T. Matsumura & TBD

15:25  15:50  P&T and the Prevention of Underground Criticality
A. Salazar (Uni. California Berkeley, USA)

15:50  16:15  An Innovative Way of Thinking P&T – Neutron Physics of a Reactor Directly Operating on SNF
B. Merk (Uni. Liverpool, UK)

16:15  16:40  Some Implications of Recycling CANDU Used Fuel in Fast Reactors
M. Gobien (Nuclear Waste Management Organisation, Canada)

16:40  17:40  Presentations of posters for session 5&6
3 mins*(6+14) posters

17:40  19:40  Poster session
Chair: TBD
### Session 6: Advanced Nuclear Fuel Recycling

#### TBD

**10:00 - 10:25** Sigma Team for Advanced Actinide Recycle: Highlights and Directions  
B. Moyer (ORNL, USA)

**10:25 - 10:50** The EXAm process: towards the reprocessing of a concentrated PUREX raffinate  
M-C. Charbonnel (CEA, France)

**10:50 - 11:15** Technology Readiness Levels (TRL) Assessment of Separation processes for current and advanced fuel cycles  
E. Collins (EGFRC, NEA)

**11:15 - 11:40** Actinide separation process development at the UK National Nuclear Laboratory  
R. Taylor (NNL, UK)

**11:40 - 12:05** Recent progress on R&D of separation process for minor actinides using new extractants  
T. Matsumura (JAEA, Japan)

**12:05 - 12:30** SACCESS: three years of optimization of safe actinide separation processes  
S. Bourg (CEA, France)

**12:30 - 14:00** LUNCH

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**Session 6: Advanced Nuclear Fuel Recycling**

#### TBD

**14:00 - 14:25** Status of R&D on Pyrochemical Processes for Spent Nuclear Fuel Treatment in Europe  
P. Soucek (JRC, EU)

**14:25 - 14:50** Engineering and Materials Considerations of an Industrialised LKE Molten Salt System  
D. Graham (NNL, USA)

**14:50 - 15:15** Key Experimental Results of the PYROSMANI Project  
M. Kormilitsyn (Kurchatov Institute, Russia)

**15:15 - 15:40** Recent activities on pyroprocessing of spent nuclear fuel in CRIEPI  
T. Murakami (CRIEPI, Japan)

**15:40 - 16:10** COFFEE

**16:10 - 16:40** Summary Session

**16:40 - 17:10** Discussion and closing