PROGRAMME

TUESDAY 28TH SEPTEMBER

09.00-10.00 REGISTRATION + COFFEE

Session: Stabilization of high-level waste

10.00-10.30 Title to be confirmed
KEYNOTE I. Farnan

Session: Long-term behaviour of engineered barriers (containers, buffers, backfills) in geological conditions

10.30-11.00 Interfacial reactivity: emerging paradigms from molecular-level
KEYNOTE observations
Andrew R. Felmy, Eugene Ilton, Kevin Rosso, and John M. Zachara

11.00-11.20 Degradation of waste container materials In repository environment
D.L. Engelberg, T.J. Marrow and P.J. Withers

11.20-11.40 The Use of Natural Systems Data in Modelling Cement-Rock Interactions
David Savage, Joerg Rueedi and Irina Gaus

11.40-12.00 From laboratory observations to full scale testing: The Large scale gas injection test (Lasgit)
R.J.Cuss, J.F. Harrington, D.J. Noy, A. Wikman and P. Sellin

Session: Retention, retardation and reactive transport of radionuclides

12.00-12.20 Biogeochemistry of radionuclides – a geodisposal context
Katherine Morris, Jon Lloyd, Francis Livens

12.20-12.40 Observations of the microbial effects on intact, fractured mudstone from Horonobe (Japan) – a model for microbial influences on the geological disposal of radioactive waste
Heather Harrison, J.M. West, A.E. Milodowski, K. Bateman, P. Coombs, J. Harrington, S. Holyoake, A.M. Lacinska, G. Turner, D. Wagner and H. Yoshikawa

12.40-13.00 Discussion

13.00-14.00 Lunch

14.00-14.30 Why chemistry matters in radioactive waste management (especially for
KEYNOTE actinides!)
Francis Livens, John Charnock, Steve Heald, Jon Lloyd, Neil Milestone, Kath Morris, Stephen Parry, Joanna Renshaw

14.30-14.50 Modelling biogeochemical processes in radioactive wastes in surface and geological disposal facilities; approach, applications and research challenges
Joe Small

14.50-15.10 Bioremediation of Sr-90 and Tc-99 at Nuclear Facilities
C.L. Thorpe, J.R. Lloyd, G.T.W. Law, I.T. Burke and K. Morris

15.10-15.25 TEA

Session: Total system performance, models and uncertainties

15.25-15.55 Retention, retardation and reactive transport of radionuclides
KEYNOTE B. Kienzler

15.55-16.15 Triassic limestones of Mt. Kithaeron (Greece) as natural analogues of long-term retention of uranium in carbonate rocks: a Synchrotron-based study
A. Godelitsas, F.-C. Kafandaris and J. Göttlicher

16.15-17.15 The nuclear fuel cycle: role of mineralogy and geochemistry in the safe
HALLIMOND management of nuclear waste
LECTURE R. C. Ewing

17.15-17.35 Gas and water flow in the Callovo-Oxfordian argillite: a candidate host rock for the disposal of radioactive waste in France
J.F. Harrington, D.J. Noy and J. Talandier

17.35-18.00 Discussion

WEDNESDAY 29TH SEPTEMBER

Session: Total system performance, models and uncertainties (continued)

09.00-09.20 Title to be confirmed
A.E. Milodowski

09.20-09.50 Modeling geosphere transport in performance assessments of geologic disposal
KEYNOTE systems
S. Painter

09.50-10.10 How permeable are fractures in buried basement?
Christopher J. Talbot

10.10-10.30 "All changed, changed utterly" – how much geomorphic change over the lifetime of nuclear waste?
T. Atkinson

10.30-10.50 Research for geological disposal: the role and expectations of the Environment Agency
G. Thomson

10.50-11.00 Discussion

11.00-11.15 Coffee

11.15-12.15 Poster introductions

12.15-14.30 Lunch + poster session

14.30-16.30 Careers panel discussion

Poster Session

Empower posters

Hazardous waste – achieving the best overall environmental option (BOEO)
Richard Ansell

An investigation and verification of ANGLE V.3: HPGe gamma efficiency calibration software, for application within the nuclear decommissioning industry
Steven Bell, Paddy Regan and Steven Judge

The setting of standards in aqueous waste discharges for the nuclear industry
Kate Brady

Assessing the risks associated with the effects of climate change on nuclear power stations in the UK
Matthew Brinklow

The use of groundwater level and temperature data to investigate groundwater recharge and movement
Shirley Cade

Determining optimum counting times using gamma-spectrometry for the identification of radionuclides collected by a high volume air sampler
Andrew Cole

Dose assessments for short term releases of radioactivity from cyclotrons
Jennifer Leck, David Copplestone, Jackie Pates and Kate Griffith

Instrumental Radiochemical Analysis System for Environmental Waste Management
Chris James Morris

A risk-based assessment for members of the public from multiple authorised discharges of radioactive substances in an Environment Agency Region
Siobhan Murphy, Jackie Pates and John Titley

Review of permeable reactive barrier conceptual design for Sellafield Site, using updated characterisation data and revised conceptual models
Bojana Nanić-Holden

A GIS-based 3D modelling examination of groundwater flow and contaminant transport in bedrock geology at Sellafield nuclear site, Cumbria.
Kate Norman and Nick Smith

Assessment of the UK radioactive waste management capability
Fiona Preston, Jackie Pates and Neil Dickinson

Polymer formulation trials for orphan wastes
William Simpson

Influencing staff attitudes and behaviour to energy conservation
B.L. Smith

How will coastal erosion challenge future UK nuclear power generation?
Alison Spreadborough

Production of neptunium and plutonium tracers by the irradiation of uranium targets

Hongping Wang, Simon Jerome, Jaiyana Ahmed and David Parker

Tritium in the foreshore springs, and environs immediately inland of foreshore, at Sellafield Nuclear Site, Cumbria
Rhiannon Williams

Session: Stabilization of high-level waste

A novel method for the determination of radionuclides and their precursors in concretes.
Benoit Disch, Kym Jarvis, Susan Parry

Comparison of alpha-particle and heavy recoil radiation damage in xenotime (YPO4)
Katie M. Gunderson, Clive Brigden, Eric R. Vance, Marcus Walter and Ian Farnan

Cerium as a surrogate for plutonium in fluorapatite nuclear waste forms
Prashant Selvaratnam, Shirley Fong, Brian Metcalfe, Phillip Mallinson and Ian Farnan

Session: Retention, retardation and reactive transport of radionuclides

Neptunium redox cycling: an XAS study
Gareth T.W. Law, Andrea Geissler, Jon R. Lloyd, Francis R. Livens, Ian T. Burke,Christopher Boothman, Melisa A Denecke, Jörg Rothe, James D. Begg, and Kath Morris

Comparison of hydroxyapatite bio-minerals prepared by various manufacture methods for the treatment of radionuclides from aqueous solutions
Stephanie Handley-Sidhu, Joanna C. Renshaw, Ping Yong, Marion Paterson-Beedle, Claire Menan[2], and Lynne E. Macaskie

Session: Long-term behaviour of engineered barriers (containers, buffers, backfills) in geological conditions

Session: Total system performance, models and uncertainties