



2nd Annual

Nuclear Waste: The Challenge of Interim Storage & Long Term Disposal

Organised by:



Monday 27th & Tuesday 28th September, London, UK

Developing winning strategies across the waste management supply chain, from interim storage to packaging to final disposal to maximize product and facility viability

DISTINGUISHED SPEAKERS INCLUDE:

Jeremy Western, Special Projects
Director, **EDF, UK**



Ewoud Verhoef, Deputy Director,
COVRA, NETHERLANDS



Professor Fergus G F Gibb,
Professor of Petrology & Geochemistry,
SHEFFIELD UNIVERSITY, UK



Javier Quinones, Head of High Level
Waste Unit, **CIEMAT, SPAIN**



Gerard Bruno, Radioactive Waste
Management Unit, **IAEA**



Mayor Jacob Spangenberg, Chairman
of final repository to **ÖSTHAMMAR
MUNICIPALITY, SWEDEN**



Andrew Orrell, Director of Nuclear
Energy, **SANDIA NATIONAL
LABORATORIES, US**



Patrick Landais, Head of Scientific
Department, **ANDRA, FRANCE**



TOP REASONS TO ATTEND:

- Discover the key steps to managing your interim storage facilities for extended time periods
- Establish winning strategies to overcome political, technical and societal boundary challenges
- Identify innovative new packaging concepts
- Learn from unique case studies on deep geological disposal sites
- Understand how to achieve successful sustained engagement with host communities

TOP COMPANIES PRESENTING

**EDF, HSE, Nagra,
Magneox North, IAEA
and many more!**



NEW THIS YEAR

- Hear from EDF on their new build waste plans
- Learn from the deep disposal site communities about what is crucial to them for sustained cooperation
- Assess cutting edge alternatives to traditional deep geological disposal
- Identify how the critical issues in interim waste storage are managed across Europe

Register online now at: www.arena-international.com/power/nuclearwaste

Programme Day One

Monday 27th September 2010, London, UK

08:00 *Coffee Registration*

08:55 *Opening remarks from the Chair*

09:00 **UK spent fuel management from EDF Energy perspective**

- Outlining the relevant issues to both existing and new nuclear stations in planning, licensing and authorisation
- Reviewing UK national policy
- Assessing current available technologies
- Defining how these have influenced EDF Energy's plans and proposals in the UK

Jeremy Western, Special Projects Director, EDF

09:40 **Understanding the very latest complementary methods to demonstrate safe interim storage**

- Successfully managing uncertainties for safer interim storage
- Highlighting the key advantages in exploitation of long-term inactive ILW package stimulants
- Optimising reworking approaches to prevent package failure
- Understanding partnerships within the UK through the Integrated Project Team

Mark Tearle, Research Coordinator, MAGNOX NORTH

10:20 **Case study of Interim Storage – An in depth analysis of how an interim storage facility can maintain high safety and technological standards over decades**

- Highlighting how the problems of construction of facilities that must be maintained for multiple decades have been successfully addressed
- Establishing and effectively managing the key safety aspects for maintaining an interim storage facility
- Understanding how to address the long term structural and operating procedures to ensure long term reliability
- Identifying and evaluating the key lessons learned

Dr. Ir. Ewoud V. Verhoef, Deputy Director, COVRA

11:00 *Networking break*

11:30 **Successfully managing an interim storage facility for HLW**

Implementation of a interim storage will run over the period at least 70 years, from first planning until closure. 12 sites are currently presented as potential locations for this nuclear facility. The next step will be the site selection by the government.

- Outlining the history of the Spanish waste management policy to assess the successes and failures
- Clarifying how the new interim storage will allow evaluation of new nuclear fuel cycle options (i.e. Partitioning & Transmutation), to accomplish the main objective of dramatically diminishing the volume and hazard of waste produced
- Identifying the key advantages of the considered facility
- Overcoming the significant political, technical and societal boundary challenges
- Achieving maximum participation and engagement of the public and stakeholders to ensure successful development

Javier Quiñones Díez, Head of High Level Waste Unit, CIEMAT

12:10 **Panel Session – Defining the optimal strategy for siting and implementing long-term interim storage projects in the absence of an immediate final disposal site**

- What should be the criteria for site selection?
- Should New Build companies be forced to implement their own plans?
- Would national or shared repositories be a better option?
- What is the best way to gain funding for research and implementation?

Peter Faross, Director, EUROPEAN COMMISSION

Gerard Bruno, Division of Radiation, Transport and Waste Safety International Atomic Energy Agency, IAEA

Dr. Ir. Ewoud V. Verhoef, Deputy Director, COVRA

12:50 *Networking Lunch*

13:50 **Clarifying the major technical and regulatory challenges for spent fuel in order to successfully gain licenses**

- Understanding the current situation and its true implications
- Establishing the best location for waste storage for practicality and cost effectiveness
- Determining the timescale for legacy storage to enable better R&D in canister and facility production
- Clarifying the licensing for decommissioning and legacy waste storage to minimise costs in facility upkeep and management

John Kessler, Manager of High-level waste and Spent fuel, EPRI

14:30 **Identifying the regulators perspective to learning the lessons for the future of interim waste**

- What currently matters to the HSE in regards interim storage
- Clarifying the challenges of regulating facilities over a time frame of decades
- Determining lessons learned from history and international experience
- Assessing the current situation and its true implications for current and future programmes
- Highlighting regulatory cooperation and initiatives

Steve Griffiths, HM Superintending Inspector Nuclear Installations, HSE

15:10 *Networking Break*

15:40 **Understanding the very latest waste storage regulations and licensing issues to ensure full compliance of the facilities**

- Understanding international safety requirements for radioactive waste management and disposal
- Identifying winning strategies in overcoming safety issues related to long term storage of spent fuel and radioactive waste (including results of the 2010 IAEA Spent Fuel Conference)
- Outlining global progress in harmonising the licensing of disposal facilities
- Analysing examples and results of IAEA review services in radioactive waste management, decommissioning and site remediation

Gerard Bruno, Division of Radiation, Transport and Waste Safety International Atomic Energy Agency, IAEA

16:20 **Uncovering the most innovative treatment and packaging options for HLW to dramatically reduce costs**

- Assessing the key nuclear waste forms for long term disposal
- Achieving long term integrity and preventing degradation of your waste packaging to significantly increase safety
- Selecting the right packaging option to ensure compliance with current regulation
- Establishing the key issues for nuclear waste form integrity

Ian Farnan, Senior Lecturer Mineral Sciences, UNIVERSITY OF CAMBRIDGE

17:00 *Closing remarks from the Chair and end of conference*

I Programme Day Two

Tuesday 28th September 2010 , London, UK

08:00 *Coffee registration*

08:55 *Opening remarks from the Chair*

09:00 **Challenges to site selection from the communities' perspective**

- Establishing the critical preconditions for a safe process in site selection from a national perspective
- Generating effective strategies for a safe process in site selection from a local (municipal) perspective
- Understanding a complex issue: learning lessons from management experience to prevent confusion
- Overcoming the challenges for local political leaders in managing both sides of the argument to ensure continued cooperation

Mayor Jacob Spangenberg, Chairman Of Final Repository to ÖSTHAMMAR MUNICIPALITY, SWEDEN

9:40 **Evaluating the Swedish KBS method for final disposal of spent fuel: Assessing the critical issues for licensing**

- Outlining the current development of the Swedish KBS method
- Identifying the essential preparations for the upcoming licensing process
- Defining the critical issues for licensing
- Evaluating the major possible outcomes of the licensing process

Johan Swahm, Director, MKG

10:20 **Establishing the true corrosion protection of copper canisters to ensure safety**

- Evaluating why copper corrosion had become a disregarded problem and why that could lead to future problems
- Establishing the effect of temperature, irradiation and the chemical environment has on the copper canister
- Understanding the special situation at the Forsmark site and lessons learnt
- Implementing essential changes to improve the corrosion barrier to ensure long term viability

Peter Szakálos, Project leader, ROYAL INSTITUTE OF TECHNOLOGY

11:00 *Networking Break*

11:30 **Achieving extended container lifetime by controlling the chemical environment**

- Optimising a winning strategy for predicting container lifetimes
- Determining the true implications of stochastic vs deterministic corrosion processes
- Clarifying the contained chemical environment concept
- A case study: the Belgian supercontainer, understanding its advantages and limitations

Frank Druyts, Head of Unit R&D Waste Packages, SCK CEN

12:30 **Successfully developing the siting and licensing of the French deep disposal repository**

- Evaluating the step-by-step evolution of the French programme in conjunction with the legislative framework to achieve sustained acceptance
- Attaining a viable site for the disposal facilities
- Effectively developing the experimental program in the URL (including demonstration operations)
- Developing advanced monitoring methods for the highly efficient management of the reversibility process
- Data acquisition and simulation tools for the performance assessment

Patrick Landais, Head of Scientific Department, ANDRA

12:50 *Networking Lunch*

13:50 **The first successful steps towards implementation of site selection in Switzerland**

- Understanding the pros and cons of the Swiss site selection process
- Evaluating the role of the various stakeholders in effective implementation
- Ascertaining the current situation of the Swiss development
- Exploring the role of underground research facilities in order to demonstrate viability of disposal concepts

Dr Ingo Blechschmidt, Head of Grimsel Test Site, NAGRA

14:30 **Understanding the geopolitics of nuclear waste repositories in the US**

- All politics are local: clarifying the future of Yucca Mountain, the Waste Isolation Pilot Plant, and stakeholder acceptance in new repository siting efforts
- Geopolitical considerations for the next repository: assessing the technical and socio-political issues for future repository concepts and siting in salt, clay/shale, and deep boreholes
- The Blue Ribbon Commission: understanding expectations and possible next steps and consequences for the law, Congress, the Department and Industry
- Successfully facilitating disposal through reprocessing/recycling and advanced fuel cycles; determining the facts from the myths
- The challenges of interim storage, reprocessing, waste confidence, and the international framework: lessons learned and unlearned

Andrew Orrell, Director of Nuclear Energy, SANDIA NATIONAL LABORATORIES

15:10 *Networking Break*

15:40 **Analysing deep borehole disposal as an alternative to mined repositories for spent fuel and other high-level wastes**

- Outlining the concept and its advantages & disadvantages as a waste disposal method
- Evaluating specific waste-related deep borehole schemes
- Highlighting the latest technologies used and current limitations
- Establishing the current status of borehole disposal in the international community
- Determining the steps towards full scale demonstration

Professor Fergus G F Gibb, Professor of Petrology & Geochemistry, SHEFFIELD UNIVERSITY

16:20 **Developing winning strategies to overcome the challenge of the skills shortage in the nuclear workforce to ensure the industry remains at the forefront of technological advancement**

- Developing a successful educational programme to educate the best candidates for the nuclear field
- Collaboration of Universities and industry to ensure the correct skills are acquired by the workforce of the future
- Ensuring the industry can obtain personnel with the nuclear specific skills required
- Maintaining the long term provision of a skilled workforce through comprehensive outreach programmes

John Roberts, External Liaison Manager, Dalton Nuclear Institute, UNIVERSITY OF MANCHESTER

17:00 *Closing remarks from the Chair and end of Conference*

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The Radioactive Waste Immobilisation Network was established in 2003 and provides a forum for meetings and

developing collaborations between regulators, academia, industry of all tiers and government agencies in the areas of radioactive waste immobilisation and disposal. Further details on previous meetings are available on the RWIN website www.rwin.org.uk



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WHO SHOULD ATTEND:

Companies:

- | | |
|--|---------------------------------|
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| • Utilities | • Head of waste transport |
| • R&D Institutes | • Chief Geologist |
| • Construction and nuclear storage contractors | • Siting Manager |
| • Regulators | • Environmental manager |
| • Government officials | • Repository Director |
| • Academics and Professionals | • Scientist |
| | • Programme Manager/Director |
| Titles: | • Head of Geological Disposal |
| • Head of waste management | • Project Manager/Director |
| • Project manager | • Scientific Manager |
| • Technical Engineer | • Head of Research |
| • Head of Disposal | • Repository Director |
| • Spent Fuel Manager/Head of High Level Waste | • Head of High Level Waste Unit |

About the conference:

The 2nd annual conference Nuclear Waste: The Challenge of Interim Storage and Long Term Disposal has been developed with key industry experts to bring you unparalleled insight in to the whole waste management chain, from interim storage to packaging to final disposal. This conference brings together industry experts to uncover, explain and assess cutting edge technological and strategic developments in new build waste management, packaging options and final disposal solutions.

If you want to be a part of this successful event, we have a number of sponsorship opportunities available to you. Contact us at **+44 (0) 207 753 4259** to discuss your specific requirements.

Booking Form

Nuclear waste: The Challenge of Interim Storage & Long Term Disposal

Monday 27th & Tuesday 28th September, London, UK

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- ☐ Email us at events@arena-international.com
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Venue Details

The two day conference will take place in London, UK
For further information contact our Operations department on +44 (0) 20 7753 4201.

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