

RADIOACTIVE WASTE MANAGEMENT AND SPATIAL PLANNING

Seminar report, March 2012



Introduction

This report provides an overview of the presentations and discussion at the seminar which took place in Local Government House on 9 March, 2011.

The report has the following structure:

- Purpose, agenda and participants
- Key points from the morning presentations
- Key points from the morning discussions
- Key points from the afternoon presentations
- Key points from the afternoon discussions
- Issues for NuLeAF to address
- Annex A: Seminar agenda
- Annex B: Participants list
- Annex C: Information sources

Purpose, agenda and participants

The purpose was to:

- promote understanding and discussion of current developments in radioactive waste management;
- identify the implications for spatial planning and development control; and
- identify the issues for NuLeAF to take upon behalf of its member authorities.

The seminar agenda is attached as Annex A. Speaker presentations are available on the NuLeAF website at <http://www.nuleaf.org.uk/nuleaf/seminars>. The participants list is attached as Annex B. The information sheet from the seminar pack is attached as Annex C.

In total, 46 people participated in the seminar, including representatives from 16 local authorities. Participants also came from the CoRWM, DECC, EDF, the Environment Agency, LLWR Ltd, Magnox Ltd, NDA, the Office for Nuclear Regulation, the Planning Inspectorate and Sellafield Sites Ltd. The full list of participants is contained in Annex 2.

Key points from the morning presentations

- *'Overview of the NDA Integrated Waste Management (IWM) Strategy Programme'*: an IWM strategy needs to address the waste hierarchy, the whole waste cycle, costs and opportunities, the proximity principle, the supply chain and open market and stakeholder engagement. The NDA's strategy management system is being used to develop IWM strategy. This enables the case for change to be identified, credible options to be defined and assessed, preferred options to be identified and strategy to be approved and implemented. IWM strategy development will address the following stages and aspects of waste management: pre-treatment, treatment, storage, disposal and, where appropriate, specific waste groups. Treatment of Higher Activity Wastes (HAW), for example, will address thermal treatments and examine the possibility of regional and mobile facilities. A new element of the work is a 6-9 month project to further develop the strategy for Very Low Level Waste (VLLW) and low activity LLW (LALLW). This will include: an assessment of arisings, need and capacity; how to accommodate different needs in different parts of the country; use of VLLW in construction of the LLW Repository (LLWR) cap; assessment of potential for on-site/near-site disposal at Sellafield; and understanding of how on-site disposal affects ability to clear sites. Underpinned by effective stakeholder engagement, the project should enable guidance to be produced that will shape how VLLW and low activity LLW strategy is implemented.
- *'Strategy development: consolidation of Intermediate Level Wastes (ILW)'*: consolidation means the movement of waste between nuclear licensed sites to secure a clear business benefit. Benefits could be realised in four ways: through early site clearance; reduction in site footprint; hazard, risk and security level reductions; and infrastructure optimisation. The approach could be on a national, regional or local basis and will support or align to other strategic initiatives, for example, on-site restoration. Case-by-case consolidation will need to be underpinned by business cases and continued stakeholder engagement. Consolidation could include: Harwell and Winfrith; southern and central Scottish sites; and the regional storage of Magnox mini-stores. Whether there is a case for the latter, for example, is still being assessed. NDA is interested in feedback on how to gain local stakeholder support, particularly in communities that could be adjacent to recipient sites.
- *'The LLW programme: capacity gap analysis and future disposal options'*: the UK faces a capacity challenge as the maximum vault capacity of the LLWR is 1.7 million m³, but projected packaged arisings are 6.4 million m³. The LLWR could last until 2130, but only with substantial waste recycling and volume reduction, and alternative solutions for VLLW and LALLW. Significant progress is being made with implementation of the waste hierarchy, including metal recycling and use of incineration routes. Current VLLW/LALLW landfill disposal routes are at King's Cliffe, Lillyhall, Clifton Marsh and Sellafield. Potential future disposal routes include Keekle Head, Dounreay, re-use in the LLWR cap and a second site at Sellafield. Although there is currently a large over capacity in the market, if

current planning permissions for disposal at King's Cliffe, Lillyhall and Clifton Marsh are not extended, a VLLW/LALLW disposal capacity shortfall will occur in 2015. Planning is required to ensure provision of post-2015 capacity. The LLWR cap might be able to accommodate half of post-2015 arisings. LLWR Ltd will finalise and publish the capacity assessment in the summer of 2012, further evaluate LLWR capping opportunities, and contribute to the NDA project to further develop VLLW/LALLW strategy.

Key points from the morning discussion

- *IWM strategy development is leading to the production of a series of credible option papers, but will a UK-wide HAW strategy be produced akin to the UK LLW strategy?* Documentation requirements are being addressed as the programme moves forward. The NDA's IWM Strategy Development programme is focussed on the NDA estate, but will engage with other waste owners when it is appropriate to do so.
- *How could development of the ILW consolidation strategy affect anticipated proposals for a new ILW store at Harwell?* There is on-going work on credible off-site options for ILW at Winfrith. This options study will inform the preparation of the planning application for the Harwell ILW store.
- *How can Waste Planning Authorities (WPAs) deal with the uncertainties that arise from IWM strategy development, particularly about potential ILW consolidation?* Work to establish whether there is a case for consolidating mini-stores from Magnox sites is underway. NDA should note that some WPAs are closing down the option of consolidation in their core strategies.
- Permission for VLLW/LALLW disposal at Clifton Marsh is volume and time limited and the WPA would prefer to see development of a disposal facility at the Springfields licensed nuclear site. *Could the new NDA project breath new life into the Springfields proposal?* This would need careful consideration, including understanding of how on-site disposal would affect site restoration, in particular the ability to de-license the site, and how such a development would fit with the contract arrangements for the site.
- *How does the Government's revision of exemption orders affect projected volumes of arisings?* The move to a radionuclide specific approach will mean that limits for some radioisotopes will go up and some will go down. Although the overall impact is unclear, some reviews indicate a trend towards reduced volumes of decommissioning VLLW/LALLW.
- *Will the NDA's new project to develop VLLW/LALLW strategy impact on short-term plans to use the new framework contract for VLLW/LALLW disposal?* The new service will go ahead. The key focus in the project will be on the post-2015 situation.

Key points from the afternoon presentations

- *'Spent fuel management – EDF Energy perspective':* the Government has concluded that effective arrangements will exist to manage and dispose of the waste from new nuclear power stations. However, operator plans must be robust against uncertain timescales and provide for interim storage. EDF's plans

for interim storage of spent fuel pending geological disposal are consistent with Government policy. The technology options for spent fuel storage include dry storage (in casks, canisters or vaults) or wet storage in ponds. A comparison of technical and safety features shows that there is no clearly superior technology. Each technology is potentially licensable by ONR and capable of meeting the EA's requirements. Decisions about the approach to the interim storage of spent fuel at different sites has to be based on judgements of local factors, the need to minimise project risk while providing a robust solution, and providing flexibility to meet future possible developments. The key areas of difference affecting the choice of dry storage at Sizewell B and proposed wet storage at Hinkley Point C include: fuel burn-up, time in the reactor pond before transfer, fuel quantity, and fuel transfer design and the benefits of replication. The pond option has the greatest capacity to adapt to different fuel cycles over station lifetimes. The choice of wet storage for Hinkley Point C has been reviewed in the light of events at Fukushima and confirmed as the best approach.

- *'Radioactive waste management and spatial planning – a view from the Planning Inspectorate'*: PINS and the Infrastructure Planning Commission (IPC) will merge on 1 April 2012. The new organisation will have three roles relevant to nuclear energy and nuclear legacy management: the examination of proposals for nationally significant infrastructure projects (new nuclear generation); the examination of local plans (waste development plan documents); and town and country planning appeals (with nuclear implications). It is clear that most nuclear legacy development will not be considered as national infrastructure and much is likely to proceed as development under the town and country planning legislation. In the light of the Government's planning reform agenda, sound local plan policies and effective community engagement become critically important. Waste Planning Authority (WPA) areas hosting existing nuclear sites require a sufficient policy framework to support decommissioning activities and on-site interim management of wastes. For WPA areas without nuclear sites, there may be an issue with the view that nuclear legacy management "has nothing to do with us". There is a need for an informed conversation and understanding of future requirements. The duty to cooperate in the Localism Act is likely to be relevant to radioactive waste management. Strategic priorities across local boundaries will need to be properly coordinated and reflected in local plans. The draft national planning policy framework suggests that a sound local plan will one that has been or is positively prepared, justified, effective and consistent with national policy.

Key points from the afternoon discussion

'Spent fuel management – EDF Energy perspective'

- *How can EDF's conclusion that wet storage of spent fuel is preferable at Hinkley Point C be reconciled with the conclusions of the Royal Society (RS) that wherever possible dry storage should be pursued?* The RS view was based on a generic assessment, not on a case specific assessment taking into account circumstances and needs at a specific site.

- *Given the preference for dry storage of spent fuel at Sizewell B, would it not be difficult to justify a preference for wet storage at Sizewell C?* Again, a case specific assessment will be undertaken and it should not be assumed at this stage that wet storage will be proposed for Sizewell C.
- *Would approval of EDF's proposed Funded Decommissioning Programme (FDP) for Hinkley Point C be needed before the station can be built?* Yes, that is the case, and EDF have a large team working on the project, including work towards securing approval for the FDP alongside work on detailed design and other consents.
- *Cumbria CC explained that they have made a representation to the IPC in respect of Hinkley Point C about the availability of disposal routes for LLW.* EDF said that the examination process for the development consent application would commence following a preliminary meeting that would be held by the IPC on 21 March. The process for the conduct of the examination would be decided by the IPC, which would include consideration of all the relevant representations. It would not be appropriate for EDF to comment on any specific representations at this point.
- *Is there scope for a more coordinated approach to managing the radioactive wastes from the A, B and C stations at Sizewell?* EDF recognises the importance of this and noted that the proposed re-use of land being made available on the Sizewell A site for a spent fuel store for Sizewell B is a good example of what may be possible.

'Radioactive waste management and spatial planning – a view from the Planning Inspectorate'

- *How will the duty to cooperate be applied to radioactive waste management if pro and anti-nuclear authorities are involved?* Practice is at a very early stage and will need to evolve, drawing on the lessons from joint core strategies, for example, on housing. Compromises may be necessary.
- *What evidence will WPAs have to provide to show that implementation of the duty to cooperate has extended sufficiently far?* A 'horses for courses' approach is needed. For example, cooperation across a single boundary might be sufficient where a site is close to two boundaries. Consolidation strategies might require wider cooperation. New evidence on arisings emerging from NDA and LLWR Ltd will be valuable.
- *It is difficult to make judgements about what is required when strategy is still being developed.* Plan-making has to proceed on the basis of the strategy position and evidence base at the time of writing.
- *How far should WPAs go in addressing radioactive waste management?* This depends on circumstances. WPAs with nuclear sites should cooperate with other WPAs to the extent necessary to provide a sufficient policy framework to support decommissioning activities and on-site interim management of wastes. It is much more difficult for WPAs without nuclear sites. For them, it is more about cooperation with the NDA and LLWR Ltd to understand potential requirements.
- The implications of the LLW capacity gap analysis and NDA's project to further develop strategy for VLLW and LALLW will need careful consideration.

Issues for NuLeAF to address

A final presentation commented on ILW consolidation, VLLW/LALLW disposal, new build radioactive waste management and spatial planning issues. For each topic, NuLeAF's current policy and role was outlined. The importance of early and effective engagement with local authorities was highlighted, with offers of NuLeAF assistance to help facilitate that engagement, for example, on NDA's project to further develop strategy on VLLW/LALLW disposal, or the consolidation of ILW storage. The potential role of a community benefits protocol in ensuring national needs can be met in a fair way at a local level was highlighted.

Next steps include discussion of the implications of developments in NuLeAF's officer group and Steering Group, and review and revision of NuLeAF's interim advice to WPAs on addressing radioactive waste management in local plans.

ANNEX A: SEMINAR AGENDA

- 11.00 Welcome and introduction – Cllr Timothy Knowles, Chair, NuLeAF
- 11.05 'An overview of integrated waste management at NDA Sites', *Matthew Clark, Integrated Waste Manager, NDA*
- 11.35 'Strategy development: Intermediate Level Waste – consolidation of treatment and storage', *James McKinney, Head of Integrated Waste Management, NDA*
- 12.05 'Strategy delivery: the Low Level Waste programme – capacity gap analysis and future disposal options', *Dave Rossiter, Head of National Programme Implementation, LLWR Ltd*
- 12.35 Panel discussion
- 13.00 Lunch
- 13.30 'The management of radioactive wastes and spent fuel from new nuclear power stations', *Nigel Knee, Head of Nuclear Policy, EDF Energy*
- 14.15 'Radioactive waste management and spatial planning: the perspective of the Planning Inspectorate', *Rynd Smith, Director of Policy, Quality and Development Plans, The Planning Inspectorate*
- 15.00 'Issues for NuLeAF to address', *Fred Barker, Executive Director, NuLeAF*
- 15.30 Finish

ANNEX B: PARTICIPANTS

Speakers

Matthew Clark	Integrated Waste Manager	Nuclear Decommissioning Authority
James McKinney	Head of Integrated Waste Management	Nuclear Decommissioning Authority
Dave Rossiter	Head of National Programme Implementation	LLW Repository Ltd
Nigel Knee	Head of Nuclear Policy	EDF Energy
Rynd Smith	Director of Policy, Quality and Development Plans	The Planning Inspectorate
Fred Barker	Executive Director	NuLeAF

Delegate List

Steve Smith	Interim Head of Nuclear and Energy Development	Copeland Borough Council
John Rennilson	Member	CoRWM
Sue Brett	Senior Minerals & Waste Policy Officer	Cumbria County Council
Richard Evans	Team Leader, Minerals & Waste	Cumbria County Council
Colin Mackie	Head of National Radioactive Waste & Safety Team	DECC
Stephen Allen	Policy Advisor	DECC
Charlotte Lewis	Principal Planning Officer	Dorset County Council
Mike Garrity	Planning Policy Team Leader	Dorset County Council
Phil Heaton	Team Leader, Decommissioning Nuclear Sites	Environment Agency
Chris Lloyd	Nuclear Regulator	Environment Agency
Lisa Jones	Assistant Nuclear Regulator	Environment Agency
Richard Clarke	Nuclear Regulator	Environment Agency
Hamish Barrell	Senior Planner	Essex County Council
Alethea Faulkner	Senior Planning Officer (Minerals & Waste)	Greater Manchester M&W Planning Unit
Paul Prowting	Planning Planning Policy Officer	Hampshire County Council
Rob Storey	Development Management Officer	Hampshire County Council
Julia Davey	Councillor	Hampshire County Council
Adrian Hurst	Principal Environmental Health Officer	Hartlepool Borough Council
Lyn Westwood	Inspector (Nuclear Installations)	Health & Safety Executive
Lillian Harrison	Project Manager – Minerals & Waste	Kent County Council
John Prosser	Principal Planning Officer – Waste	Kent County Council
Louise Nurser	Planning Policy Manager	Lancashire County Council
John Wright	Team Leader, Policy, Minerals & Monitoring	Leicestershire County Council

Cath Giel Adam Meehan	Stakeholder Relations Manager Decommissioning Programmes Manager	LLW Repository Ltd Magnox Ltd
Shari MacDonald	MWDF Manager	Northamptonshire County Council
Mark Laurenson	Principal Development Control Officer	Northamptonshire County Council
Taufiq Islam		Oxfordshire County Council
Rob Dance		Oxfordshire County Council
Trevor Brown	Principal Planning Officer	Oxfordshire County Council
John Hamilton	Team Leader, Development Management	Oxfordshire County Council
Grant Jackson	Spatial Planning Officer	Plymouth City Council
David Loudon	Waste Strategy Manager	Sellafield Sites Ltd
Heather Brown	Waste Policy Officer	Somerset County Council
Guy Robinson	Interim Minerals and Waste Policy Manager	Somerset County Council
Gillian Ellis-King	Strategic Projects Manager	South Gloucestershire Council
David Palk	Development Manager	Suffolk County Council
Deborah Sacks	Consultant	Suffolk County Council

NuLeAF

Cllr Tim Knowles	Chairman	Cumbria County Council
Fred Barker	Executive Director	NuLeAF
Catherine Draper	Administrator	NuLeAF

ANNEX C: INFORMATION SOURCES

NuLeAF Seminar, 9 March 2012

Hyperlinks to the documents and webpages listed below are available on the NuLeAF website, www.nuleaf.org.uk. Go to the Seminar sub-section of the Events & Meetings webpage and click on 'Information Sources'.

1 Government Policy

'Managing Radioactive Wastes Safely: A Framework for Implementing Geological Disposal', June 2008 - Government policy on the long-term management of higher activity wastes.

'Policy for the Long-Term Management of Solid Low Level Radioactive Wastes in the UK', published in March 2007 - Government policy on the management of Low Level Wastes.

'Meeting the Energy Challenge', 2008 - Government policy on new nuclear power stations.

'National Policy Statement for Nuclear Power Generation (EN-6)' - the Government's policy framework for planning decisions on new nuclear power stations.

'Waste and decommissioning financing arrangements' - the Government's approach to financing arrangements for meeting the costs of waste management, and decommissioning new nuclear power stations.

2 NDA Strategy

'Strategy – effective from April 2011' - the NDA's over-arching strategy.

'Integrated Waste Management Strategy Development Programme' – NDA published a draft for comment in December 2010. NuLeAF's comments on the draft are available on the NuLeAF website.

'UK strategy for managing LLW from the nuclear industry' - published by the NDA in August 2010. NuLeAF's commentary on the strategy is also available on the website.

3 Strategy Implementation

Documentation about the implementation of strategy for the management of LLW can be found on the website of LLWR Ltd (www.llwrsite.com).

It is anticipated that the LLWR website will shortly include new information about the programme to implement LLW strategy.

In the meantime, the December 2009 Management Plan and guidance on stakeholder engagement are available.

4 Regulation

Go to the Seminar sub-section of the Events & Meetings page on the NuLeAF website and click on 'Information Sources' for information from the Environment Agency (EA) about:

- how it regulates the nuclear industry
- guidance on the regulation of disposal of LLW
- information on current applications for authorisations for disposal
- the EA's work on the Generic Design Assessment of new nuclear power stations

Go to the same page on the NuLeAF website for information from the Office for Nuclear Regulation (ONR), including:

- an overview of the ONR's work
- joint regulatory guidance on the management of higher activity wastes
- the ONR's work on the Generic Design Assessment of new nuclear power stations

5 Minerals and Waste Development Frameworks (MWDFs)

'Briefing Paper 21, Interim Advice on Approaches to Radwaste Management in MWDFs' – NuLeAF's interim advice includes an overview of the way Waste Planning Authorities are addressing radioactive waste management in their MWDFs.

6 Development Control Case Studies

The NuLeAF website features a number of case studies and planning reports, as well as a Briefing Paper on the King's Cliffe Inquiry. These include:

- a. Sizewell Spent Fuel Dry Store - Case Study 12
- b. King's Cliffe Landfill – Case Study 11
- c. Clifton Marsh Landfill – Case Study 10
- d. Secretary of State's Decision Letter – King's Cliffe Landfill Appeal
- e. Planning Inspector's Report – King's Cliffe Landfill Appeal
- f. Extension to operating life of Clifton Marsh landfill – Planning Report