

# THE FUTURE OF NUCLEAR LEGACY MANAGEMENT IN THE UK

NuLeAF Seminar Report,  
December 2008



## Introduction

This report provides an overview of the discussion and output from the NuLeAF seminar held on 2 December 2008.

The report has the following structure:

- Aims, agenda and participants
- Overview of the NDA strategy review
- Prioritisation and timetable for decommissioning
- Geographic approaches to radioactive waste management
- Commercialisation of nuclear legacy management
- Way forward
- Annex 1: Seminar participants

## Aims, Agenda and Participants

The aims of the seminar were to:

- Provide a briefing on key issues relevant to the NDA Strategy Review and the future of nuclear legacy management
- Discuss the implications for local government

The agenda included an introduction to the NDA strategy review and three sessions on cross-cutting or underlying themes.

Presentations were made by:

- Adrian Simper, Strategy Director, NDA
- Phil Davies, Head of Waste and Nuclear Materials, NDA and
- Joanne Fisher, Head of Lower Activity Wastes, NDA

Each presentation was followed by discussion in plenary session.

In total, 29 people participated in the seminar, including representatives from 12 local authorities and the LGA. Participants also came from Site Stakeholder Groups (2), the

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Environment Agency (2) and industry (3). The full list of participants is contained in the Annex to this report.

## **Overview of the NDA Strategy Review**

Adrian Simper's presentation explained the nature of the NDA strategy review. This involves a new system to manage strategy development, with three key elements:

- the NDA Strategy Document
- topic strategies
- site guidance

The Strategy Document is overarching, consolidating the key areas of strategy across the various topics. It will be consulted on formally and has to be approved by Government. The NDA intends to produce a new version by the end of 2010.

However, under the new system, development of strategy will continue primarily through work on 'topic strategies' covering site restoration, nuclear materials management, waste strategies, business opportunities and 'critical enablers'. Developing strategy through topic strategies is intended to ensure that strategy is formulated at a rate appropriate to each topic, and should allow more effective stakeholder engagement. The latest position on each topic strategy is explained on the NDA website at [Topics Overview](#).

Under the new system, each Site Licensee Company (SLC) will be issued with site guidance derived from the topic strategies. This is intended to improve alignment between site Lifetime Plans and NDA strategy.

The system is overseen by NDA's Strategy Control Board, which reports to a Government led Strategy Development and Delivery Group.

Adrian also pointed out that:

- the context has changed dramatically from the time when NDA was set up (from "an orderly exit from nuclear" to a potential "nuclear renaissance")
- NDA has been given additional responsibilities (strategy for managing Low Level Wastes and for siting a Geological Disposal Facility)
- There are some big decisions to be taken, for example, on plutonium management, which depend, in turn, on Government policy decisions.

## **Prioritisation and Timetable for Decommissioning**

Adrian's presentation covered the following:

- By statute, the NDA's primary responsibility is decommissioning and clean-up, taking into account socio-economic impacts. It also has to prioritise around health and safety legislation, ensuring that Site Licensee Companies (SLCs) are able to comply with obligations under the Nuclear Installations Act and Radioactive Substances Act. After that, funding on 'discretionary activities' is subject to a prioritisation process, with hazard

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reduction as the primary driver. A 'value framework' is being developed to inform that prioritisation process.

- The distribution of spending is quite different now compared with 2005/06. Spending has been re-prioritised to ensure high hazard facilities are tackled, particularly at Sellafield.
- Spending also has to cover 'critical enablers' such as R&D and strategic initiatives.
- It can sometimes be cheaper to continue to pay to do something than to discontinue it.

Points made during discussion included:

- Has the re-prioritisation of spending away from lower hazard sites been fair? NDA acknowledge that it may have been responsible for raising unrealistic expectations at some sites through its early aspirational statements. It may be that re-prioritisation is perceived to be unfair, but it is not wrong in practice. Some participants thought, however, that re-prioritisation of spending away from Magnox and southern UKAEA sites to Sellafield and Dounreay had gone too far. Others thought that "just enough" is being spent on high hazard sites.
- To what extent will wastes be re-categorised as a result of a drive to reduce costs? The Intermediate Level Waste (ILW) category is pretty fixed - volume reduction is the main opportunity. There is more opportunity for cost reduction in managing Low Level Wastes (LLW), including disposal of VLLW to landfill and re-use of exempt wastes.
- NDA should bear in mind that timely progress on decommissioning and clean-up at their sites is important to maintaining the confidence of local stakeholders and will influence their views on the acceptability of new nuclear power stations. It is thought that the Government's Office for Nuclear Development is aware of this argument.
- There is a need to look at the potential synergies in land use at multi-station locations, particularly in the context of potential new build. How can local authorities encourage Government to think about this? NDA recognises that there are synergies and, if within its powers, would wish to exploit them to the benefit of nuclear legacy management. The Office for Nuclear Development is aware of the potential synergies.
- How much real discretion in spend is there, once legal and regulatory requirements have been met? How open to stakeholder influence is the NDA's prioritisation process for discretionary spend (the 'value framework')? There is relatively modest scope for discretionary spend. As a result of increased scrutiny and efficiency the new Sellafield Parent Body Organisation might free up funds to spend elsewhere, or to spend more at Sellafield. The NDA is open to receiving stakeholder views on prioritisation.
- Moving forward to de-license some UKAEA sites makes sense as it would get them off the liability sheet. How can that be valued in the prioritisation process? The NDA has to ask whether this would represent Value for Money and be affordable. At the current time it does not have the money to do it.
- What is the current status of the Safe Secure Sites contingency and when will decisions be made? Magnox have done a valuable piece of work on S3 contingency planning. An S3 programme would entail additional costs in the short term to release cash in the medium term, but a significant increase in long term costs. NDA is reviewing the work

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and will make a public domain version available. Further assessment is needed, but a preliminary view is that it does not look to be the right thing to do. It is possible, however, that cash released in the medium term could be used to good value at Sellafield.

- Can the case be made to Government to increase the level of funding to NDA? The NDA itself has only made one funding bid to Government (in Comprehensive Spending Review 2007). It is not clear when the next CSR will be (sometime within the next 18 months).

## **Geographic Approaches to Radioactive Waste Management**

Joanne Fisher's presentation on LLW management covered the following:

- Predicted total raw arisings of LLW are 3 million cubic metres, covering a broad spectrum of activity levels and materials. Approximately 60% is declared as Very Low Level Waste or mixed VLLW/LLW. The figure does not include large volumes of potentially contaminated land that is yet to be characterised.
- For the majority of NDA sites, the current baseline strategy is high force compaction followed by consignment to the LLW Repository (LLWR) near Drigg in Cumbria, with significant variation between sites on the practical application of the waste hierarchy.
- The remaining capacity of the LLWR is around 0.7 million cubic metres, subject to planning and regulatory approvals. Based on projected waste arisings, baseline plans and available routes, a new national LLWR (LLWR2) could be required by the mid 2030s.
- The NDA has identified 54 potential strategic initiatives to reduce its LLW liabilities and, if possible, avoid the need for LLWR2 (see [Strategic Review Summary](#))
- Potential options for new facilities include: at nuclear sites, local off-site, regional or national. The scope of new facilities could be for radioactive wastes only, or for radwastes and non-radioactive wastes. The funding could come from NDA, the supply chain, or a joint approach. The NDA wants to offer diversified solutions.
- Many sites are already considering options for enhancing capability for: characterisation of wastes; sorting and segregating; decontamination; metal recycling; incineration; on-site disposal; and off-site disposal to landfill.
- Consultation on a draft LLW Strategy and Plan will be undertaken in Spring 2009.

Points made during discussion included:

- There is a need for public debate on the pros and cons of the different options as they raise important issues for local communities.
- An important dimension of the debate is whether facilities should be concentrated at or near existing nuclear sites, or dispersed more widely into the community (particularly for very low hazard VLLW). It was suggested that the 'where' of LLW management should be considered as a strategic choice within the Strategic Environment Assessment associated with the LLW strategy review. However, NDA indicated that this may be an issue for implementation rather than a choice at the strategy level.
- NDA pointed out that concentration of facilities at existing sites implies reliance on a 'command' approach, rather than allowing market-led solutions. If the supply chain can

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make its own business case for off-site facilities it should be allowed to proceed. In addition, there could be a case for a 'command' approach for new national strategic facilities.

- Emerging LLW strategy should be addressed in Minerals and Waste Development Frameworks. One approach would be to encourage a self-sufficient approach so that the movement of wastes is minimised. However, NDA suggested that this might lead to fragmented solutions and a more sophisticated approach would be needed.
- The view was expressed that Community Funds should be available for communities hosting new facilities. The NDA pointed out that demands for Community Funds could help close-off some options for moving forward.

Phil Davies addressed issues associated with the management of higher activity wastes. Points included:

- NDA is interested in exploring potential for multi-site or national solutions for the interim storage or treatment of ILW. For example, treatment of ion-exchange resins might require a multi-site approach to make it work.
- A national review of storage had been undertaken that identified the scope for some consolidation of storage at southern sites (see [ILW Storage Review](#)).
- As far as practicable it would be useful to separate progress in decommissioning and clean-up from the GDF siting process. For example, it would be helpful to find alternative disposal routes for reactor graphite, such as disposal at existing sites.

Points made in discussion included:

- A number of participants stressed that their authorities would not be happy to take wastes from other areas.
- The 'yellow box' strategy proposed by Magnox for ILW storage (see [Storage Optioneering](#)) is favoured by some participants, but NDA consider that it requires further work to establish the business case.
- NDA acknowledged that it was sometimes difficult to ensure effective local engagement in decision-making. There is probably a case for more direct engagement with local authorities on impending investment decisions.

## **The Commercialisation of Nuclear Legacy Management**

Adrian Simper's introductory remarks included:

- The NDA's approach relies on a mixture of command and market-led initiatives. For example, GDF siting is command-led. Strategy should set out NDA intentions as clearly as possible so commercial entities can decide whether there are opportunities in nuclear legacy management that can be pursued.
- Levels of commercialisation can vary from utilising, for example, specialist non-nuclear sector companies to cope with bio-hazards in managing foul water, to joint ventures, for example, for locating asbestos management for various sites on a specific site.

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Points made in discussion included:

- What role is there for local authorities in promoting appropriate opportunities locally? NDA suggested that commercial companies wishing to put forward proposals should pay due regard to local development plans.
- What scope is there for NDA to sell or lease out land specifically to enable commercial entities to develop LLW disposal facilities? NDA suggested that in such circumstances issues would have to be thought through around who retains long-term responsibility. It was likely that an SLC role would have to be sustained in the development. NDA would be willing to consider any serious proposals.
- It was suggested that a “touch of the ivory towers” was creeping into NDA’s reliance on the supply chain to deliver off-site solutions, and that this approach would come up against a lack of public confidence. NDA responded that both it and the regulators would require suitably qualified and experienced persons to be involved. Some ‘ivory tower’ thinking may be needed to open up new management routes, particularly for VLLW.
- A participant suggested there is a need to change attitudes in the steel industry, so that it would take exempt steels (a “quality waste”) from the nuclear industry.
- A participant highlighted concerns that increased use of landfill for nuclear industry LLW/VLLW could put unacceptable pressure on landfill capacity, which local authorities rely on for managing municipal wastes.
- NDA indicated that they would like to hear a “consolidated position” from local authorities on local solutions to LLW management. It was concerned to find a way of addressing issues of perception, particularly for VLLW disposal.

## Way Forward

NuLeAF will use the points made at the seminar to inform discussion in its Strategy Review Group and at its Steering Group. In particular, seminar output will inform:

- NuLeAF’s response to the current consultation on the draft NDA Business Plan
- NuLeAF’s response to the consultation in the Spring of 2009 about draft NDA strategy on LLW management
- Future discussion about the inter-actions between nuclear legacy management and potential new nuclear power stations
- NuLeAF input to the review of overall NDA strategy.

NuLeAF’s work is guided by a set of Strategic Objectives (see [Policy Statement 5](#)). It seeks to keep member authorities up to date with developments through circulation of an e-bulletin (see [E-bulletin 12](#)). NuLeAF welcomes feedback from local authorities about their involvement in local discussions about nuclear legacy management. Further information about NuLeAF initiatives can be found on its website ([www.nuleaf.org.uk](http://www.nuleaf.org.uk)).

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## Annex: Participants

Allerdale Borough Council	Cllr Mike Davidson, Vice Chairman, Nuclear Issues Task Group
Barrow Borough Council	Cllr Ken Williams, Deputy Leader
Copeland Borough Council	David Davies, Nuclear Policy Advisor
Cumbria County Council	Sue Brett, Nuclear Issues Officer
Essex County Council	Mark Woodger, Senior Planner
Hartlepool Borough Council	Adrian Hurst, Principal Environmental Health Officer
Hartlepool Borough Council	Cllr Geoff Lilley
Kent County Council	Susan Tipping, Planning Officer
Oxfordshire County Council	Trevor Brown, Principal Planning Officer
Purbeck District Council	Richard Conway, Principal Environmental Health Officer
Shepway District Council	David Illsley, Regeneration Officer
Suffolk Coastal District Council	Bob Chamberlain, Principal Planner (Major Projects)
Suffolk Coastal District Council	Clive Pink, Environmental Health Officer
Suffolk County Council	John Pitchford, Spatial Planning Manager
Suffolk County Council	Cllr Julian Swainson, Seminar Chair and Vice-Chairman, NuLeAF
NuLeAF	Fred Barker, Executive Director
NuLeAF	Catherine Draper, Administrator
Local Government Association	Justin Sauvage, Environment Advisory Service, Project Co-ordinator
Sizewell SSG	Richard Smith MVO, Chair
Dungeness SSG	Colonel George Smythe OBE, Chair
Environment Agency	Phil Heaton, Nuclear Regulation Group Team Leader
Environment Agency	Chris Lloyd, Nuclear Regulator
Magnox South Ltd	Adam Meehan, Decommissioning Programmes
Sellafield Ltd	Howard Rooms, Stakeholder Relations Manager
UKAEA Culham	Dr Allen Edwards, Active Operations Department Manager and Head of Safety and Environment
NDA	Adrian Simper, Strategy Director
NDA	Jo Fisher, Head of Lower Activity Waste Management
NDA	Phil Davies, Head of Waste and Nuclear Materials