

Meeting:	NuLeAF Steering Group, 30 April 2008
Agenda Item:	5
Subject:	Management of Low Level Radioactive Waste
Author:	Fred Barker
Purpose:	To report on developments

Introduction

This report covers:

- An update about the Low Level Waste Repository (LLWR) near Drigg, including award of the contract for managing the site
- The first meeting of the NDA's LLW Strategy Group and preliminary steps in the development of a new LLW management strategy
- A proposed national framework for community funds
- Publication of a Briefing Paper for local authority planning officers

Recommendations

That the Steering Group:

- 1 endorses the preliminary comments on the development of LLW strategy as outlined below; and
- 2 endorses proposals for a national framework for community funds as outlined below.

The LLWR near Drigg

As reported at the last meeting, permission has been granted for development of Vault 9 (to be operated as an interim store pending resolution of long-term safety case issues). It is anticipated that construction will start in the summer.

Discussions are underway about the 'delivery vehicle' for the Community Fund (possibilities include setting up a charitable company limited by guarantee or a partnership venture).

At the end of March, NDA announced that UK Nuclear Waste Management Ltd (UKNWM) had been awarded the contract for the management and operation of the LLWR. UKNWM is a consortium led by URS Corporation (including Studsvik, Areva and Serco Assurance). The award of the contract represents the first in a series of competitions for NDA sites as required by the 2004 Energy Act.

The contract also covers the development of a UK wide strategy for managing LLW (see below). NDA states that proposals for technical innovations could reduce the overall liability for LLW management by 20%, amounting to savings of around £1billion.

The NDA LLW Strategy Group

The NDA has established a national nuclear industry LLW Strategy Group (LSG) to promote innovation, value for money, application of the waste hierarchy and planning for effective approaches to disposal. The LSG will play an important part in the development of the NDA's LLW Strategy.

As agreed at the last SG meeting, the Executive Director represents NuLeAF on the LSG, which held its first meeting on 17 April. Cumbria CC is also represented on the LSG as planning authority for the LLWR. Other members include representatives from the NDA, SLCs, Government Departments and the regulators.

The first meeting consisted mainly of a series of presentations by NDA and UKNWM to bring participants up to speed with current thinking. Key points can be grouped into background, the process for strategy development and topical strategies.

Background

- The Government's 2007 policy statement on LLW management introduces a more flexible approach. NDA highlighted various aspects of Government policy, including changes in the definition of VLLW which could in principle allow greater use of landfill for decommissioning wastes, and changes that allow use of international facilities, for example, for recovery of re-usable materials or where treatment will make subsequent management easier.
- Challenges include to substantially increase the operating life of the LLWR and to substantially reduce LLW liabilities. NDA reports that currently forecast arisings could fill LLWR disposal capacity by 2020, assuming permissions to construct additional vaults.

- It is intended that the NDA's LLW Strategy will focus on implementation of the waste hierarchy, the optimum use of the LLWR and opening up additional 'fit for purpose' LLW management routes.

Process for Strategy Development

- A preliminary strategic review of LLW management has been undertaken which identified opportunity to achieve a 20% reduction in the NDA's LLW liability by 2129, and extension of the life of the LLWR to 2070. NDA states that the work represents an initial view and requires full discussion, consultation and review.
- The current step is to seek feedback from LSG members on four topical strategies, covering application of the waste hierarchy, waste packaging, waste transportation and waste tracking/inventory management (see below). Following comment, the topical strategies will be developed to inform preparation of the new LLW strategy.
- A Strategic Review report will be issued to LSG members for comment in October 08. This report will identify (a) initiatives that can be taken in the short-term and (b) longer-term initiatives that require further evaluation through Option and Opportunity (O&O) Studies. Formal consultation on the draft Strategy will begin in April 09. The aim is to have an approved LLW Strategy in place by the end of 2009.
- The O&O studies will be phased over the next four years. The studies will be framed by NDA's approach to 'integrated waste management'.
- A UK LLW Management Plan will be developed alongside the Strategy. It will set out the how, where and when involved in Strategy implementation. It will also identify future investment needs, risk mitigation strategies and the R&D that is needed.
- NDA states that stakeholder engagement is critical for successful development and implementation of nuclear industry LLW Strategy.

Topical Strategies

- Application of the waste hierarchy is seen as key to solving the 'disposal capacity gap' and reducing liabilities. NDA proposes moving to increased standardisation based on identifying best practices in waste avoidance and minimisation, characterisation and segregation, waste treatment and volume reduction and re-use/re-cycle.
- NDA points out that better characterisation and segregation of wastes would result in a larger fraction consigned as Exempt or Very Low Level Wastes, allowing the optimum use of waste treatment and disposal facilities.
- On waste treatment and volume reduction (eg surface decontamination, metal melting or incineration) it proposes that the LLWR SLC will evaluate all available commercial treatment capacity, open avenues to existing capacity and review how best to exploit and potentially expand current UK capacity. It suggests that a centralised service could simplify authorisations and regulatory approvals whilst reducing overall costs, and notes that the use of overseas facilities in the short-term could mitigate LLWR capacity pressures whilst developing the business case for the construction of UK facilities.

- On re-use/re-cycle, NDA points out that treatment processes can typically allow over 95% of treated metal to be re-cycled. It adds that significant opportunities could exist for re-use of decommissioning rubble as aggregate for new construction projects.
- On disposal, NDA proposes to encourage more 'fit-for-purpose' approaches, including on-site disposal, in-situ disposal and landfill, particularly for large volumes of low activity wastes from decommissioning and site clean-up. NDA intends to work closely with stakeholders to 'identify and mitigate any barriers that currently prevent full utilisation of these routes'.
- On packaging, NDA proposes to consider a range of new, innovative and flexible approaches, including the scope for increased packaging efficiency (ie the proportion of a package filled with waste), whether less expensive containers could be fit for purpose, and the potential for re-usable containers.
- On transport, the LLWR SLC will undertake an integrated transport study to identify the optimum approach to the movement of LLW, including potential for switching from road to rail, and potential use of transport hubs such as Crewe and the port of Workington (for consolidating LLW prior to onward transport).
- On waste tracking/inventory management, NDA proposes that the LLWR SLC will switch from a largely paper-based system to a secure web-based system. This is intended to simplify waste scheduling, transportation, processing and disposal, and substantially enhance analysis and forecasting capability.

NDA is seeking feedback on the topical strategies from LSG members by 16 May. These strategies will be discussed at a meeting of NuLeAF's LLW Officer Working Group on 28 April. Key points from that meeting will be reported verbally to the SG.

Preliminary comments are that:

- The emphasis on identifying best practices for application of the waste hierarchy, the optimum use of the LLWR, and reducing liabilities is welcome.
- Care will be necessary to ensure that the drive to reduce liabilities does not jeopardise, or be perceived to jeopardise, adherence to key principles, including openness and transparency, consultation and community engagement, addressing local community concerns and appropriate consideration of the proximity principle.
- For proposed new facilities – particularly for the treatment and disposal of wastes - further work is needed to identify and utilise best practices in risk communication and ways of building local community confidence in proposals.

Proposal for a National Framework for Community Funds

At its last meeting, the SG agreed to consider a report on LLW management and community funds at this meeting, including the possibility of developing a national framework.

The Executive Director has subsequently drafted a discussion paper, which was reviewed at the meeting of the LLW Officer Working Group on 26 February (see section 4 of the draft note of the meeting attached as an Annex). A final version of the discussion paper has been published on the NuLeAF website as Briefing Paper 14 ([BP14, March 08](#)).

The paper argues that a national framework would have a number of advantages, including:

- the avoidance of ‘negotiating from scratch’ each time a proposal for a facility is made
- the avoidance of inconsistencies between agreements in different areas
- ensuring a justified and proportionate approach
- the avoidance of delays
- greater transparency
- increased goodwill on the part of local stakeholders

It points out that the justifications for providing community funds are likely to vary from case to case, but could include:

- the actual or perceived impacts on public health and the environment, and on the local infrastructure and economy (including transport, tourism, industry and the ability to attract investment).
- the presence of a radioactive waste management facility and associated institutional controls within the community for a period across a number of generations
- the role of the facility in the optimisation of the use of national facilities and achievement of national cost savings
- the actual or potential role that the facility will have in taking wastes from other sites or sectors
- the international and UK precedents for the provision of community funds in association with particular types of development, including radioactive waste disposal facilities
- the recognition by Government and NDA of the role of community packages in the siting of radioactive waste disposal facilities, albeit with an explicit national role.

The paper suggests that the scope of a national framework requires careful discussion, but should:

- clarify the legislative bases for provision of community funds
- clarify the types of radioactive waste management facilities covered by the framework
- acknowledge the justifications for providing community funds
- provide guidance on what constitutes a proportionate approach
- provide guidance on the types of initiatives that can be funded
- clarify the process for initiating discussions and reaching agreement
- provide guidance on how a fund should be administered/managed.

Finally the paper argues that the factors that should determine what constitutes a proportionate approach are likely to include:

- the nature and size of the proposed facility
- the types of radioactive waste to be managed in the facility

- the volume of waste that it is intended to be emplaced in the facility on an annual basis
- the total inventory of radioactivity that is likely to be emplaced in the facility
- the lifetime of the facility and duration of required institutional control
- the role that the facility will or may play in taking wastes from other sites or sectors
- the lifecycle cost savings associated with the facility
- the location of the proposed facility and the nature of its surrounds
- the nature and size of the community funds that have been agreed for other radioactive waste management facilities.

The Executive Director and Chief Executive of Sedgemoor DC are meeting with the NDA Strategy Director on 9 May to discuss the proposals. The SG's comments are invited.

Briefing Paper for Local Authority Planning Officers

At its last meeting, the SG agreed that a Briefing Paper on policy and strategy for managing radioactive wastes should be produced for local authority planners to inform preparation of Minerals and Waste Development Frameworks.

A draft of the Briefing Paper was reviewed at the meeting of LLW Officer Group on 26 February (see section 3 of the draft note attached in the Annex). A final version has been published on the NuLeAF website as Briefing Paper 13 ([BP13, March 08](#)). The paper is also available on the website of the Planning Officers Society.

The BP has been sent to contacts in the LGA, the Planning Advisory Service and regional planners. The editor of the journal 'Waste Planning' has also agreed to take an article based on the BP (the journal is published bi-monthly and seen by most local authority waste planners).

NULEAF LOW LEVEL WASTE OFFICER WORKING GROUP

DRAFT note of the meeting held on 26 February 08, LG House

Present:

Fred Barker	NuLeAF
Peter Day	Oxfordshire CC
Adrian Dyer	West Somerset DC
Richard Evans	Cumbria CC
Barry James	Somerset CC
David Palk	Suffolk CC
Sharon Thompson	Kent CC
Mark Woodger	Essex CC

1 Note of the Meeting on 18 December

The note of the meeting on 18 December was agreed as an accurate record and would be placed on the NuLeAF website.

FB reviewed the actions. He reported that:

- The first meeting of the NDA LLW Strategy Group had not yet taken place. It was hoped this would meet in April, with the output forming the substantive agenda item for the 28 April meeting of the officer group.
- Representatives of the Programme Board for the non-nuclear industry LLW strategy review would be meeting with the group at its meeting on 24 June.
- FB had received information from the Planning Inspectorate about progress with MWDF preparation across the country and agreed to circulate it to members of the group

2 Update on Developments at Specific Sites

RE reported on developments associated with the LLWR near Drigg in Cumbria. Permission had been granted for development of vault 9 (to be operated as an interim store pending resolution of long-term safety case issues). It was anticipated that construction would start in June or July. Discussions are underway about the 'delivery vehicle' for the Community Fund (possibilities include setting up a community interest company, a charitable company limited by guarantee, or a partnership venture).

AD reported on discussion at the Hinkley Point Site Stakeholder Group, where the Chair had argued that a Community Fund should be associated with development of a LLW disposal facility at the site. The planning application for the facility had not yet been made.

DP reported on discussion with British Energy (BE) about possible new build at Sizewell, indicating some concerns that further thought needs to be given about the potential for consolidation of radioactive waste management facilities. He added that

BE and Magnox Electric had been asked for feedback on SCC's waste issues report, but that a substantive response had not been received.

3 Draft Briefing Paper for Planners

Further to agreement about the proposed scope of the briefing at the last meeting, FB had prepared a draft which had been circulated for discussion at the meeting. Feedback from DEFRA and the Environment Agency had been taken into account in the drafting.

Comments from members of the group included:

- The briefing should make it clear that every waste planning authority should address radioactive waste management in their MWDFs.
- Further detail of reference material should be given, in addition to the hyperlinks in the draft.
- The text on VLLW should enable the reader to visualise the types of material involved.

Action: It was agreed that FB should finalise the briefing for publication on the NuLeAF website. DP agreed to approach the POS with a view to publication on the POS website. FB agreed to ask Deborah Sachs about circulation to regional planners, and to send copies to the LGA and PAS.

4 Paper on Community Funds

FB introduced the draft paper on community funds and LLW disposal facilities. The following points were made in discussion:

- The draft has identified the relevant legislation. Consideration needs to be given to the potential role of local government's 'well-being' power, in addition to S106.
- It is not clear whether the Community Infrastructure Levy will be applicable to radioactive waste management developments. It is possible that these will be exempt.
- The potential justifications for providing community funds for site-based developments include the national benefits associated with optimisation of use of the LLWR and efficiency savings.
- The scope of the proposed national framework should be extended to include the process for initiating discussions and reaching agreement and guidance on how a fund should be administered.
- All types of purpose-designed radioactive waste management facilities should in principle come within the scope of the framework, other than geological disposal which is being considered separately in the MRWS programme.
- Subject to detailed drafting, the paper had identified the relevant factors to take into account in determining what would amount to a proportionate approach. A simple formula might be appropriate for generating a rough estimate, which could then be adjusted through consideration of other relevant local factors.

Action: It was agreed that FB should finalise the paper, taking into account the above comments, and that he should liaise with KR about setting up meetings with NDA and others to discuss the proposed framework.

5 AOB

RE suggested that the next meeting consider the work that the NDA was undertaking to promote Integrated Waste Strategies.

6 Future Meetings

The next meetings of the group are on 28 April and 24 June.