Meeting:	NuLeAF Steering Group, 25 April 2012
Agenda Item:	5
Subject:	Low Level Waste Management
Author:	Fred Barker
Purpose:	To report on developments, including commitment from NDA to develop an improved approach to securing VLLW and low activity LLW disposal routes.

Introduction

This report covers:

- Steering Group representations on NDA/LLWR Ltd's approach to securing VLLW and low hazard LLW disposal routes;
- the outcome of LLW Programme Delivery Group (PDG) meeting on 8 February;
- the outcome of the NuLeAF Seminar on 9 March;
- participation in a new NDA/LLWR Ltd working group to scope out an action plan for an improved approach to VLLW and low hazard LLW disposal routes;
- Augean's application to the National Infrastructure Directorate concerning the landfill site near King's Cliffe, Northamptonshire;
- discussion with the Environment Agency on environmental permitting and LLW disposal; and
- publication of the UK Strategy for the Management of Solid LLW from the Non-Nuclear Industry.

Recommendation

That the Steering Group welcome the NDA's commitment to develop an improved approach to securing VLLW and low hazard LLW disposal routes and endorse participation in discussions to help develop this approach.

Contribution to Achieving Strategic Objectives

The initiatives are intended to contribute to the achievement of the following NuLeAF objectives:

- Seek to ensure that LLW strategy is implemented in ways that can inspire local authority and public confidence.

- Encourage and assist the NDA, SLCs and the supply chain to take full account of the role and needs of the LA planning system in the implementation of LLW strategy.

- Encourage NDA to provide sufficient evidence base information and to engage in discussion about the potential for a more strategic approach to the siting of LLW management facilities.

- Subject to site suitability and local community views, encourage development of local or multi-site LLW management facilities at or adjacent to existing nuclear sites, rather than at non-nuclear sites.

1 Steering Group Representations

At its January meeting, the SG agreed to call on NDA to review its approach to securing VLLW and low hazard LLW disposal routes, as part of its comments on the NDA's proposed strategy development programme for Integrated Waste Management. The comments stated that:

> "Although we recognise that implementation of strategy for managing LLW is, in many respects, resulting in a more optimised approach, we remain concerned about reliance on the supply chain to come forward with proposals for landfill disposal of VLLW and lower activity LLW. The NDA will note that the proposals that have come forward in Northamptonshire and Cumbria have not secured local community acceptance, nor the support of the relevant local authorities. In accordance with NDA's commitment to monitor strategy implementation and, when appropriate, review strategic positions, we would suggest that it would be timely to reconsider the approach to securing VLLW and low hazard LLW disposal routes. We recommend that this be done as part of the proposed "review of VLLW disposal capacity and need" (product E2)."

In response to a request from the Chair, a press release had also been drafted urging the Government and NDA to revisit that aspect of LLW strategy that encourages the supply chain to come forward with proposals for LLW disposal to landfill away from licensed nuclear sites. The Steering Group approved publication of the press release in principle, subject to circulation of the draft for comment. Following comment, the press release attached as Annex A was published.

It was further suggested that that it would be beneficial for members to lobby their local MPs on this matter. The Executive Director (ED) agreed to prepare further advice for circulation. In the event, this was not done, as it quickly became clear that the NDA was prepared to reconsider its approach (see below).

2 Outcome of LLW Programme Delivery Group (PDG) Meeting

NDA's review of its approach was announced at the meeting of the LLW PDG on 8 February, following a presentation by the ED on 'The Implications of the King's Cliffe Decision …'. The meeting was informed that NDA and LLWR Ltd were jointly looking for a "more sophisticated and integrated" way of delivering VLLW disposal facilities, and that they acknowledged that it is not enough just to rely on the market to deliver.

There was also acknowledgement that the VLLW position in Cumbria, with local authority opposition to disposal at Lillyhall and Keekle Head, has potential to impact on other strategic programmes in the county (particularly GDF siting).

LLWR/NDA stated that they wished to make progress in developing a better approach before first VLLW shipment under the new LLWR VLLW disposal framework contract takes place (early April).

For the longer term, it was pointed out that much depends on the picture that emerges of the impact of implementing the waste hierarchy on the inventory of VLLW that will ultimately need disposing, and hence on the need for new disposal facilities beyond those currently permitted.

Other news from that meeting of the LLW PDG is outlined in Annex B.

3 Outcome of the NuLeAF Seminar

Further clarification of NDA/LLWR's approach was provided at the NuLeAF seminar on 9 March.

The seminar heard from the NDA that:

- A new element of 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.

A presentation by LLWR explained that:

- *'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 m^3, but projected packaged arisings are 6.4 million m^3. 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.

4 Participation in New Working Group

Following the seminar, the Chair, Executive Director and officers from Cumbria County Council have been invited to a meeting to agree the terms of reference and participation in, a partnership working group that will scope out an action plan for the implementation of VLLW management within the LLW national strategy policy framework.

The meeting is taking place on 20 April. Additional local authority representation is being discussed at that meeting. A verbal report on the outcome will be made to the SG.

5 King's Cliffe: Application to the National Infrastructure Directorate (NID)

Augean has applied for the alteration of existing facilities and the construction of new facilities for the recovery and disposal of hazardous waste and disposal of low level

radioactive waste at the East Northants Resource Management Facility near King's Cliffe in Northamptonshire. On 11 March, the NID accepted the application for examination (see the Planning Inspectorate (PINS) website at East Northants Resource Management Facility | National Infrastructure Planning). Extracts from Augean's application documentation are set out in Annex C.

In essence the application comprises the continuation of the existing development beyond August 2013, the alteration of the operation of soil treatment facility with an increase in capacity from 100,000 tonnes per annum to 150,000 tonnes per annum and the construction of new landfill void for the disposal of hazardous waste and low level waste at a direct input rate of 150,000 tonnes per annum.

The NID (which is part of PINS) now has around three months to prepare for the examination. It has not yet published the date when stakeholders can register to become an interested party. Once it has done so, stakeholders will have 28 days to register.

The ED has written to PINS to ask how the LLW disposal aspect of the application will be handled in view of a lack of clarity about whether that aspect falls within the definition of a national infrastructure project. The ED has also contacted Northamptonshire CC to find out what approach they intend to take to the application. Verbal updates will be provided to the meeting.

6 Discussion with the Environment Agency (EA) on Environmental Permitting and LLW Disposal

A telephone conference took place on 27 January between representatives of NuLeAF's officer working group and the EA to explore ways of ensuring that environmental permitting and spatial planning processes for disposal and transfers of VLLW/LLW can operate in a complementary manner.

The discussion covered:

- Receiving sites: relationship between environmental permitting and planning permissions
- Consigning sites: environmental permitting and role of BAT assessments
- Monitoring the implementation of planning permissions/conditions
- Future steps: liaison and engagement between operators, the EA and WPAs

A note of the meeting is attached as Annex D. The ED has subsequently met with the EA to discuss the preparation on a joint briefing note to clarify the roles of the environmental permitting and planning regimes and points covered in the discussion. An initial outline draft is awaited from the EA.

7 UK Strategy for the Management of Solid LLW from the Non-Nuclear Industry

The UK strategy for the management of solid LLW arising from the non-nuclear industry (Part 1) was published by DECC on 12 March 2012:

Strategy for the management of solid low level radioactive waste from the non-nuclear industry in the United Kingdom: Part 1 - Anthropogenic radionuclides [filetype:pdf filesize: 1014.12Kb]

Government states that the strategy is intended to:

- provide guidance and background information on this type of waste to enable planning authorities to make informed decisions on planning applications and to respond to concerns from their elected members and constituents;
- clarify the respective roles of waste producers, the environment agencies, planning authorities and the NDA to enable decisions to be made that properly recognize the responsibilities of others; and
- ensure that waste producers and regulators are fully aware of how the regulatory framework should be applied to LLW, particularly the need for waste management plans, waste minimisation at source and use of the waste hierarchy.

The Executive Summary from the strategy is attached at Annex E.

ANNEX A: PRESS STATEMENT

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PRESS STATEMENT

For immediate release

LOCAL GOVERNMENT GROUP URGES NATIONAL RETHINK ON DISPOSAL OF LOW LEVEL RADIOACTIVE WASTE

1 February 2012

Local Government's Nuclear Legacy Advisory Forum (NuLeAF) is urging Government and the Nuclear Decommissioning Authority (NDA) to think again about the strategy that leads to the controversial disposal of lower level nuclear wastes (LLW) in landfill.

The strategy, which encourages landfill operators to come forward with sites for disposal of LLW, is deeply unpopular with the public and opposed by the affected local authorities.

In Northamptonshire, after refusal of planning permission to use the landfill site near King's Cliffe site was over-turned by the Secretary of State, campaigners took their battle to the Court of Appeal. Despite determined attempts to block the proposals, disposals of LLW have now started.

In Cumbria, proposals to use two sites for LLW disposal are strongly opposed by Cumbria, Copeland and Allerdale Councils because of concerns that they will blight neighbourhoods and damage the chance of economic development by discouraging non-nuclear investment.

Special Interest Group on Nuclear Decommissioning and Radioactive Waste Management

Local Government Association

In Lancashire, the county council is opposed to the long-term operation of the landfill site at Clifton Marsh, and to it taking on a regional or national LLW disposal role.

Cumbria County Councillor Tim Knowles, who Chairs the Nuclear Legacy Advisory Forum, said:

"Landfill disposal of LLW from the nuclear industry is deeply unpopular. We are opposed to the way the commercial waste management sector has been encouraged to bring forward proposals for disposing of low level radioactive wastes away from licensed nuclear sites."

"It is difficult to see how pushing on with this strategy can be reconciled with the NDA's mission, which includes a commitment to deliver 'publicly acceptable solutions' to managing the UK's civil nuclear legacy."

"As the NDA is committed to timely reviews of its strategic positions, we strongly urge it to engage in dialogue with local government to find a better way of securing LLW disposal routes. Working together we think there is a better prospect of finding publicly acceptable sites for disposal of LLW."

Councillor Neil Swannick, Vice Chair of NuLeAF, who also chairs Greater Manchester Waste Disposal Authority, added:

"It is ironic that at a time when the Government and the European Union are encouraging local authorities to find alternatives to landfill for their municipal waste, we could see more landfill operators taking LLW from the nuclear industry."

Media enquiries to Fred Barker, NuLeAF Executive Director, on 07803 905430

ANNEX B: NEWS FROM THE MEETING OF THE LLW PDG (8 FEBRUARY 2012)

Other news included that:

- Governance arrangements are currently under review. PDG meetings might become six-monthly, with agendas tailored to specific matters eg VLLW issues. A new quarterly regulatory liaison group might be set up under the auspices of the PDG. We have suggested that planning authorities should be represented in this group through NuLeAF and/or the Planning Officers Society.

- LLWR and SLCs have been working on Joint LLW Management Plans. These are being reviewed with the intention of producing a consolidated national plan. Part of the work programme for the Joint Plans is to investigate the potential for on-site disposal, including sharing the lessons from earlier considerations of the issue (eg at Hinkley Point in Somerset)

- LLWR is also developing a national programme for stakeholder engagement. The programme should be available by the end of March.

- The LLWR website is being revamped to reflect the emphasis on programme delivery – this should go live in early April.

The last two items are not available at the time of writing.

ANNEX C: EXTRACTS FROM AUGEAN APPLICATION DOCUMENTATION – KING'S CLIFFE LANDFILL

Explanatory memorandum

Produced by Augean Ltd, 12 March 2012

Para 10.
The landfill receives largely contaminated soils, treatment residues and asbestos wastes. It is also the only landfill in the south of England with planning permission to accept low level waste and was identified by the Secretary of State as having major national significance in this respect (WS010001/ENRMF/PSAPPD).

Para 13
The proposed development is set out in detail in Schedule A of the Order but principally comprises the continuation of the existing development beyond August 2013, the alteration of the operation of soil treatment facility with an increase in capacity from 100,000 tonnes per annum to 150,000 tonnes per annum and the construction of new landfill void for the disposal of hazardous waste and low level waste at a direct input rate of 150,000 tonnes per annum. However, requirement 12 of the Order provides that the combined total amount of waste that can be imported to the site per annum shall not exceed 250,000 tonnes.

Paras 58 - 60
There are two extant Section 106 Agreements in respect of the current operations at the ENRMF (WS010001/ENRMF/PS/APPPSA and WS010001/ENRMF/PS/APPPSD). It is proposed to enter into a new Section 106 Agreement with the County Planning Authority to continue with the two obligations contained in these Section 106 Agreements, namely
a. a £5,000 annual contribution to be used towards the maintenance of the local highway; and
b. an obligation to pay £5 per tonne for every tonne of low level waste that is brought to the ENRMF site.

59. A draft Section 106 Agreement has been prepared and is submitted as part of the Application (WS010001/ENRMF/S106). A copy has been provided to the County Planning Authority and we are awaiting comments from them.

60. The draft Section 106 Agreement will revoke the existing Section 106 Agreements and will also revoke the extant planning permissions as necessary if the Order is issued and the authorised development is implemented prior to the expiry of the planning permissions.

Draft Development Consent Order

Produced by Augean Ltd, March 2012

Information on low level waste
23. The undertaker shall provide to the relevant planning authority detailed information in writing on the following
(1) quantities by weight, types and deposition locations of low level waste brought on to the site for disposal; and
(2) quantities by weight of the waste imported to the landfill directly for disposal and the waste imported to the soil treatment facility.

The information shall be provided not later than the last day in February for the preceding calendar year and copied at the same time to the East Northamptonshire Council Environmental Protection Officer.

Environmental Statement – non technical summary

Produced by Augean Ltd.

Need for the proposals
The soil treatment and recycling facility is one of only two facilities in England and Wales providing a wide range of treatment processes. The landfill is one of only eight in England and Wales which can accept a wide range of hazardous wastes. It is the only hazardous waste landfill site in the East Midlands and there are no sites accepting a similar range of wastes in the East of England, the South East, London or the West Midlands. The locations of hazardous waste soil treatment facilities and landfill sites are shown on Figure NTS 3.

It is expected that the amount of hazardous waste produced annually in England and Wales will increase as the definition of hazardous waste is widened. Some of this waste can be reused, recovered or treated including at the soil treatment facility but there will be ongoing residues which can only be disposed of to landfill.

The decommissioning and clean up of the UK's nuclear power stations and associated facilities will create significant amounts of waste such as demolition rubble with low levels of radioactivity. The East Northants RMF landfill is one of only three sites in the UK that currently can accept LLW up to 200Bq/g for disposal and the only one in the south of the country. The other two facilities comprise the Low Level Waste Repository (LLWR) at Drigg, Cumbria and the landfill site at Clifton Marsh, Lancashire. An in-house LLW disposal facility at Dounreay in north east Scotland is currently under construction. The locations of the disposal sites and the power stations undergoing decommissioning are shown on Figure NTS3.

Alternatives
Alternative options to the proposals have been considered including the need to operate the site beyond 2013, alternative waste management methods, the development of East Northants RMF rather than alternative sites and the nature of the wastes that it is proposed will be accepted. Producers of hazardous waste and LLW are required by legislation and guidance to manage their waste according to the Waste Hierarchy. This means they must find ways to avoid creating the waste in the first place and then in order of preference minimise, re-use, recycle or treat the waste which cannot be avoided. Even after the application of the hierarchy there still will be significant volumes of residual waste which have to be disposed of.

Every nuclear industry site which wishes to consign radioactive waste to landfill first has to demonstrate to the regulatory authorities that disposal to land is the best environmental option for that particular waste stream. The option of disposal of the material at the site where it is generated has to be considered before it can be disposed of elsewhere such as at East Northants RMF. …

Planning context
The proposals comprise a Nationally Significant Infrastructure Project and are in accordance with the draft National Policy Statement for Hazardous Waste. The proposals are in full

conformance with national, regional and local planning policy regarding the treatment of contaminated soils, the disposal of hazardous waste and low level radioactive waste and the extraction of clay.

Socio-economic effects
The potential effects on the economy and community in a local and national context as a result of the proposed development have been assessed.

The activities at the site result in a positive contribution to the local economy of approximately £500,000 per annum spent on local business services. Significant support is provided to the function of the Kings Cliffe village as a service centre and to support activities in other nearby villages through the Landfill Tax Contributions. Approximately £1.3million in contributions have been provided to date and future contributions are likely to be up to approximately £8million. No evidence has been identified of an adverse effect on the local economy as a result of the proposed development. It is concluded that the proposed development will not give rise to any significant adverse socio-economic impact on the local community and by the continued provision of safe, sustainable and cost effective waste management facilities will provide a beneficial socio-economic impact to regional and national businesses and the wider community.

Environmental Statement – disposal of LLW (6MB)

Augean has included letter of support from NDA dated 15 September 2010, which predates their new strategy on dealing with VLLW/LLW.

ANNEX D: NOTE OF TELECONFERENCE TO DISCUSS ENVIRONMENTAL PERMITTING AND LLW DISPOSAL

Note of
teleconference with E

ANNEX E: EXECUTIVE SUMMARY FROM THE UK STRATEGY FOR THE MANAGEMENT OF SOLID LLW FROM THE NON-NUCLEAR INDUSTRY

1.1 This document is the UK strategy for the management of solid LLW arising from the non-nuclear industry, and is primarily aimed at non-nuclear industry waste producers, the environment agencies and waste planning bodies. It will also be relevant to waste disposal facility operators, including the NDA and its site licensed companies. The strategy has been developed by a programme board set up in 2007 by the UK Government working with the devolved administrations following publication of the 2007 Low Level Radioactive Waste (LLW) policy.

1.2 Work on the strategy has been influenced by other developments – in particular the development of the UK Nuclear Industry LLW Strategy and events affecting the oil and gas industries – which are already having a positive impact on the waste disposal market.

1.3 The strategy is intended to:

- provide guidance and background information on this type of waste to enable planning authorities to make informed decisions on planning applications and to respond to concerns from their elected members and constituents.

- clarify the respective roles of waste producers, the environment agencies, planning authorities and the Nuclear Decommissioning Authority to enable decisions to be made that properly recognize the responsibilities of others.

- ensure that waste producers and regulators are fully aware of how the regulatory framework should be applied to LLW, particularly the need for waste management plans, waste minimisation at source and use of the waste hierarchy.

1.4 It does not introduce any new concepts or policy; neither does it introduce any new requirements on permit holders, regulators or other public bodies. The non-nuclear industry includes a range of different organisations all of which perform vital functions for society. Many of these industries depend on the use of radioactive materials, although some, including the oil and gas industries, produce radioactive waste as a by-product of their processing of material which contains natural radioactivity.

1.5 The UK environmental regulators on radioactive waste arising from the non-nuclear industry hold information on the form of levels and type of radioactivity, and details of permitted facilities to accept such waste. However, the management of radioactive waste from most of the non-nuclear industry, particularly low volume VLLW, is linked with that of

commercial and industrial waste, with which it is largely treated. To inform the development of the strategy, further data on waste arisings and disposal practices were therefore sought from the non-nuclear industry across the UK. All the organisations contacted had found appropriate disposal routes for their solid radioactive wastes, almost exclusively to landfill. However, as participation in this study was rather less than anticipated, quantification of waste arisings from the non-nuclear industry across the whole of the UK has been uncertain. Even so, volumes are unlikely to exceed 0.1% of the annual quantities of all waste handled in this country. It is also clear that the disposal network available to the non-nuclear industry for radioactive waste is fragile, and non-existent in some parts of the country. This situation is inevitably leading to excessive transport of wastes from their site of production to ultimate disposal location.

1.6 The difficulties facing the non-nuclear industry are that the volumes of LLW produced are insufficient to drive the provision of exclusive treatment/disposal facilities via the market. In the majority of cases, it will have to rely on disposal networks provided for other wastes. Despite the very low risks associated with their disposal, the fact that the LLW are defined as radioactive can give rise to significant public concern which can be a further deterrent for waste facility operators to provide a disposal service.

1.7 Government does not believe it is appropriate to require operators of commercial waste facilities to take particular wastes. However, via this waste strategy, Government intends to strengthen the robustness of disposal arrangements for the non-nuclear industry. Government wishes to see that existing disposal routes are conserved and that other appropriate routes can be developed or expanded as necessary.

1.8 Government believes that this waste strategy contains information on the non-nuclear industry, which promotes greater understanding of why radioactive wastes are created, what these wastes comprise, how they are managed and the risks associated with their disposal.

1.9 Various organisations have roles to play in helping to conserve and improve the UK-wide disposal network for the non-nuclear industry, and in this waste strategy, Government has set out its expectations of these bodies.

1.10 Waste producers and the environment agencies are encouraged to continue to work together to ensure appropriate application of the waste hierarchy and to consider whether the current network of waste management facilities is being used in an optimum manner. The Environment Agency has produced guidance on waste disposal to landfill in England and Wales, the most appropriate form of disposal in many instances. Furthermore the Government has completed a review of exemption provisions (October 2011) under existing radioactive waste legislation, which will improve the consistency and transparency of the regulation of radioactive waste produced by both the nuclear and non-nuclear sector, particular with respect to Very Low Level Radioactive Waste.

1.11 There is a close inter-relationship between spatial planning and environmental regulation, and Government looks to waste planning authorities to take account of non-nuclear industry radioactive waste disposal requirements, both in their role as consultees to the environment agencies on permit applications, and when they prepare and review local waste plans. This aspect of the strategy is of particular relevance both to new applications from existing disposal facility operators who wish to accept radioactive waste, and to new disposal facilities. However, waste planning authorities should also be aware of the current

disposal needs and waste management practices of non-nuclear industries that operate within their areas of responsibility as they prepare their plans.

1.12 The UK nuclear sector LLW strategy reported that demand from the nuclear decommissioning programme may result in additional availability of waste disposal facilities for the non-nuclear sector. In some cases where the NDA develops its own facilities for nuclear waste, there may be opportunities to also accept non-nuclear industry wastes provided that this does not compromise their primary mission in relation to the management of the UK□s nuclear legacy wastes. This waste strategy sets out Government expectations on NDA facilities which might potentially be available to the non-nuclear industry.

1.13 The oil and gas sector is a special case within the non-nuclear industry, both because of the physical form of the wastes produced, and their particular radionuclide content. They face imminent difficulties with disposal of certain types of their solid radioactive (NORM) waste. This matter will be the subject of a parallel LLW strategy concerned with Naturally Occurring Radioactive Materials (NORM). This issue will be dealt with in a parallel strategy for NORM wastes in the LLW category.

1.14 Government does not propose to review this strategy for at least five years. However, the liaison groups for the non-nuclear industry that are run by the environment agencies should be the focus for any feedback from regulators and waste producers, on issues emerging from this strategy and on influences felt by them from events that are external to the strategy.