

NDA LLW Strategy Group Meeting # 5

*26-27th February 2009
Scottish Government Offices, Edinburgh*

Welcome

Jo Fisher

NDA Head of Lower Activity Waste Management

Accomplishments

'Newsreel' since last meeting

What's been going on since last meeting

NOVEMBER

- CCC MWDF, 18 & 19/11/08
- LLWR visit to Harwell and Winfrith, 26&27/11/08

DECEMBER

- National IWS meeting with NDA and Regulators on all waste topics, 1/12/08
- NuLeaf seminar on radioactive waste issues 2/12/08
- Waste Management Steering Group ½ day seminar on LLW strategy, 3/12/08
- PUK NDA/LLWR contract effectiveness review, 17/12/08

JANUARY

- Major project review on LLWR Environmental Safety Case, 8 & 9/1/09
- Highland Council planning permission granted for LLW Repository for Dounreay's waste in January 09 and with Scottish Government for consideration, 13/1/09
- National Waste Research Forum, Birmingham, 14/1/09
- Strategic BPEO workshop on VLLW, Preston, 22/1/09
- Senior Management Meeting with Magnox on waste management, 29/1/09

What's been going on this month

FEBRUARY

- Environment Agency published its guidance on disposal to landfill (<http://www.environment-agency.gov.uk/business/sectors/100241.aspx>)
- Waste Management Steering Group governance meeting London, 2/2/09
- Magnox South updated on-site disposal business case and presented to NDA 12/2/09
- SDDG Manchester, 18/2/09
- RWPG London, 20/2/09
- Scottish Government Dounreay LLW Repository meeting with Government, SEPA and DSRL Edinburgh, 27/1/09
- DEFRA Exemption Order Review Workshop Edinburgh, 30/1/09
- LLW NDA Regulators meeting/s, 24/11/08, 7/1/09, 22/1/09, 24/2/09 (Segregated waste services and authorisation requirements, LLW Strategy update and Strategic Environmental Assessment progress and issues log reviewed)
- Supply chain meetings with Augean, Sita, Waste Recycling Group & Energy Solutions re. status of VLLW and controlled burial authorisation applications
- Preparations for this LSG!

Any news to add from members?

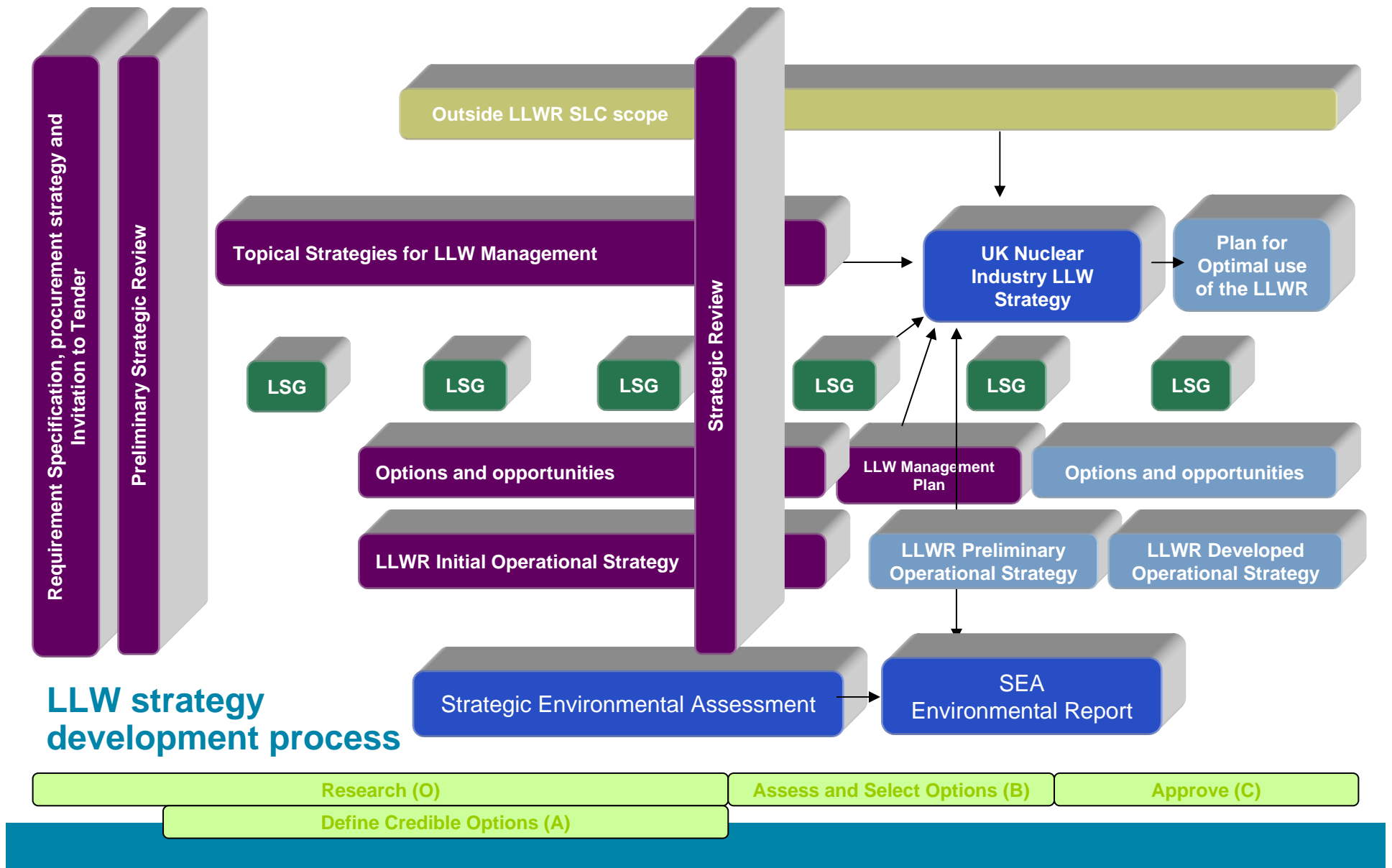
So why are we convened as the NDA LLW Strategy Group?

NDA LLW Strategy Group : reminder of aims

- To:
 - Enable those people who implement LLW strategy to contribute to its development
 - Enable participants to provide information from and to their sites
 - Develop a UK wide integrated approach to the management of LLW
 - Develop a level of “buy-in” to the strategy
 - Assess business developments and ‘strategic fit’
 - Facilitate implementation of strategy at the appropriate time

Programme for National LLW Strategy Group Meetings - 2008

Meeting	Date	Purpose / Aims	Scope
1	17 April 2008	Introduction, objectives of National LLW Strategy Group, and update on strategy development.	<ul style="list-style-type: none"> • NDA National Perspectives • Plan for developing a national strategy • Topical strategies • LLWR Customer Support and assured disposal
2	19-20 June 2008	Gain membership input into strategic review, scope of LLW strategy, and strategy group logistics.	<ul style="list-style-type: none"> • Site / Stakeholder updates • Review of consultation responses • Facilitated workshops on success factors, decision making criteria, options and opportunities, R&D • Capturing good practices
3	14-15 August 2008	Review LTP Baseline information and receive input into strategic review document and strategy topics; formalise National LLW Strategy Group programme of work and business functions.	<ul style="list-style-type: none"> • Site / Stakeholder updates • LTP consolidated baseline and strategic review • Waste inventory and site consignor support • Facilitated discussions on strategy topics
4	13-14 November 2008	Present Strategic Review results and gain input on strategic priorities and opportunities studies, update on emerging LLW strategy and management plan, and provide status of NDA, EA, & LLWR initiatives.	<ul style="list-style-type: none"> • Site / Stakeholder updates • Strategic Review document • Strategic priorities and opportunities • EA initiatives • LLWR Environmental Safety Case • Emerging LLW strategy and plan



Business Matters

Matthew Clark

LSG meeting # 4: minutes and actions

Minutes

- LLW Strategy Group 4:
 - Oldbury site tour
 - Strategic Review Document
 - Breakout 1 – Strategic Options diagram; opportunities and synergies
 - LLWR Pricing Strategy and Consignor Support Update
 - Update from EA on VLLW disposal
 - Breakout 2 – “owners” and implementation
 - LLWR Environmental Safety Case
 - Oldbury update

- Few comments on the minutes, incorporated

Actions

Ref	Date	Task	Who?	When?	Completed?
008	20 June 08	Identify ideas for incentivisation or “ring-fencing” funding from LLW innovation savings.	All	Carried until next meeting - 14 Nov 08	Partially completed
010	20 June 08	Members to respond with a rough first attempt at completing the template with key documents within 2 weeks. (Later this expanded to include examples of good practice and picked up earlier discussions around treatment, storage, and disposal assets).	Waste consignors and LLWR	29 Aug 08	Closed
019	13 Nov 08	Members to review the membership on the LLWR website and confirm any changes that should be made	ALL	12 Dec 08	Closed
020	13 Nov 08	LLWR to consider rewording initiative 29	LLWR Strategy Team	12 Dec 08	Closed

Actions

Ref	Date	Task	Who?	When?	Completed?
021	14 Nov 08	LLWR to forward Waste Accountancy Template to non-NDA sites for review	LLWR Strategy Team	12 Dec 08	Partially completed
022	14 Nov 08	National LLW Strategy Group to provide a group response to the consultation on exemption order review	LLW Strategy Group	As appropriate	Open
023	14 Nov 08	Members encouraged to provide comment on the regulatory disconnects in the area of reuse of LLW material. Also need to consider the difficulty in sentencing this material.		31 Dec 08	Open
024	14 Nov 08	Fred Plumb to provide some examples of where reuse has taken place on AWE projects	Fred Plumb	31 Dec 08	Open
025	14 Nov 08	NDA to supply consignors sites with indication of key waste streams to focus inventory work on.	NDA	31 Jan 08	Partially completed

So why is the LLW Strategy Group convened here today?

Meeting # 5 Objectives

- Gain input to **NDA Nuclear Industry LLW Strategy**
- Update group on **Strategic Environmental Assessment** informing the LLW strategy
- Present and discuss **UK LLW Management Plan** Initiatives and Actions and gain membership views
- Encourage Site / Stakeholder updates and two way communication

Agenda – 26th February

Start Time	Finish Time	Topic	Objective	Lead
1130	1230	Lunch & Registration	<ul style="list-style-type: none"> Networking and informal discussions 	Hosted by Scottish Government
1230	1245	Welcome	<ul style="list-style-type: none"> Welcome and opening remarks 	Joanne Fisher
1245	1330	Opening Session	<ul style="list-style-type: none"> Introduction Business matters Accomplishment Update International Benchmarks 	Joanne Fisher & Matthew Clark
1330	1400	NDA National LLW Strategy	<ul style="list-style-type: none"> Draft Strategy Overview Consultative document 	Joanne Fisher & Matthew Clark
1400	1430	Strategic Environmental Assessment Update	<ul style="list-style-type: none"> SEA status and progress 	Andrew Craze
1430	1450	Break		Hosted by Scottish Government
1450	1510	Introduction to Breakout Discussions	<ul style="list-style-type: none"> National LLW Strategy Q&A Breakout instructions 	Tim Hedahl
1510	1615	Session 1 - Breakout Discussions on Strategic Priorities	<ul style="list-style-type: none"> Recommendations on strategic direction and priorities 	All
1615	1715	Debriefs from Breakout Discussions	<ul style="list-style-type: none"> Highlights and recommendations 	Session Leaders
1715	1730	Day 1 Wrap-Up	<ul style="list-style-type: none"> Q&A 	Joanne Fisher/Tim Hedahl

Agenda – 27th February

Start Time	Finish Time	Topic	Objective	Lead
0830	0900	Coffee	<ul style="list-style-type: none"> Networking and informal discussions 	Hosted by Scottish Government
0900	0945	National LLW Management Plan	<ul style="list-style-type: none"> Management Plan Initiatives Methods of Implementation Implementation Schedules 	Tim Hedahl
0945	1015	Dounreay Site Update	<ul style="list-style-type: none"> Update on new LLW disposal facility Site waste strategies 	Mike Tait
1015	1030	Introduction to Breakout Discussions	<ul style="list-style-type: none"> Breakout instructions 	Joanne Fisher/Tim Hedahl
1030	1050	Break		Hosted by Scottish Government
1050	1150	Session 2 - Breakout Discussions on National LLW Management Plan Implementation	<ul style="list-style-type: none"> Recommendations on plan implementation 	All
1200	1300	Lunch	<ul style="list-style-type: none"> Guest Speaker 	Hosted by Scottish Government
1300	1400	Debriefs from Breakout Discussions	<ul style="list-style-type: none"> Highlights and recommendations 	Session Leaders
1400	1430	Q & A Discussions	<ul style="list-style-type: none"> Discussions on NDA National LLW Strategy and National LLW Management Plan 	All
1430	1500	Wrap-Up and Actions	<ul style="list-style-type: none"> Wrap-up, highlights, and action items Next meeting and agenda topics 	Joanne Fisher/Tim Hedahl

2009 National LLW Strategy Group Meetings

Meeting	Date	Purpose / Aims	Scope
5	26-27 February 2009	NDA National LLW Strategy and Management Plans for implementation.	<ul style="list-style-type: none"> • Site / Stakeholder updates • Update on draft NDA National LLW Strategy & Strategic Environmental Assessment • Review LLW strategy against success criteria • Present draft NDA LLW Management Plan
6	21-22 May 2009	Consultation on draft National LLW Strategy and Environmental Report; status and tracking of National LLW Management Plan implementation and engagement with Supply Chain.	<ul style="list-style-type: none"> • Site / Stakeholder Updates • NDA LLW Strategy consultation • National LLW Management Plan implementation (status & metrics) • LLWR Consignor Support Services and Business Case for Segregated Waste Services • LLWR Preliminary Operational Strategy
7	20-21 August 2009	Responses to consultation on draft National LLW Strategy and reconnaissance of UK LLW activities (NDA sites, supply chain, and non-nuclear industry sites).	<ul style="list-style-type: none"> • Site / Stakeholder Updates • Consultation/responses to National LLW Strategy • National LLW Management Plan implementation (status & metrics / key initiatives) • LLWR Consignor Support Services
8	19-20 November 2009	Next Revision of National LLW Management Plan and status of Options and Opportunity Studies. Update of non-NDA LLW programmes.	<ul style="list-style-type: none"> • Site / Stakeholder Updates • Revision 1 – National LLW Management Plan • National LLW Management Plan implementation (status & metrics / key initiatives) • LLWR Consignor Support Services • Alignment, integration, and incentivisation

International update [Optional – time dependant]

Joanne Fisher

International LLW Treatment: Good Practices

- Several European countries and the US operate stringent application of the Waste Management Hierarchy (WMH):
 - Characterise, sort and segregate extensively, at source;
 - Treat, in the country of origin where possible, to enable re-use and/or re-cycling;
 - Treat overseas where necessary to achieve maximum benefit and application of WMH;
 - Volume reduce;
 - Final (non-retrievable) disposal in fit-for purpose facilities, in the country of origin, and as fully stabilised waste-forms
 - Several reconnaissance trips undertaken by NDA, its SLCs as well as UK Government and Regulators

Fit for purpose VLLW disposal

- AREVA VLLW Morvilliers facility in France
 - VLLW disposed in lined trenches
 - Disposal cell excavated in clay
 - Weather protection from temporary roof during operation
 - Waste disposed in Super-sacks
 - Disposal costs are 10-20% of UK LLWR costs



El-Cabril Disposal Facility, Cordoba, Spain

- Treatment facilities on-site:
 - Super-compaction;
 - Incineration of solids and liquids;
 - Leaching and electrolysis of ashes and secondary waste
- Interim storage
- New VLLW storage and treatment capacity
- Mobile temporary roof for operations
- Provisional and long-term cover arrangements



Engagement

- NDA are members of several international liaison groups and committees
- As part of the Options and Opportunities work, benchmarking position papers are being produced on international practices related to the technical topic as part of the suite of studies
- NDA LLW Strategy is built around utilising existing good practices and technologies available today
- R&D important, but as supporting activity to continually improve and innovate

International Waste Treatment: Policy Issues

- The Government LLW policy permits the treatment of waste in overseas facilities, in light of an assessment of all practicable options, *for the recovery of re-useable materials or treatment that will make its subsequent storage and disposal more manageable*
- LLW Policy also states that there is scope for greater use of thermal treatment processes such as incineration for combustible solid and liquid LLW (e.g. contaminated oils)
- There is a significant amount of capacity worldwide in existing licensed commercial facilities and hence these routes offer significant potential to help deliver more effective waste management and preserve valuable disposal capacity in the UK

International Waste Treatment: UK Examples

- Waste from decommissioning the Siemens fuel manufacturing facility in Hanau in Germany was treated at Studsvik in Sweden. The secondary waste is awaiting disposal in the Konrad facility, due to open in 2013
- Sellafield have recently undergone trials for the disposal of LLW metals and oils.
 - In the trials, 36m³ of legacy contaminated oil was treated by a range of thermal techniques. Greater than 97% volume reduction was achieved in the trial.
 - 25te of lead was treated by metal smelting, with the radioactive contamination partitioning into the slag. The resultant non-radioactive lead is destined for re-use or re-cycling.
- Metals from the UK (e.g. pond skips) have also been treated by melting in the US.

Overseas capability: Key Issues

- It is consistent with Government and NDA policy to transport waste overseas for treatment
- Trans-frontier Shipment Regulations need to be in place for appropriately authorised treatment of LLW outside the UK
- Practicability and economic viability are key to determining whether UK treatment facilities should be established and / or continue to use existing overseas routes, e.g.
 - for low volume LLW, the viability of dedicated UK treatment plant/s may rely on co-treatment with other material (e.g. non-radioactive)
- NDA LLW Strategy indicating that a balance of facilities is preferable to support maximum flexibility for waste producers in the UK

1330 – 1430

NDA LLW Strategy & SEA

Jo Fisher, Matthew Clark & Andrew Craze