

NDA

Nuclear
Decommissioning
Authority



LLW Repository Ltd

**NDA National LLW Strategy Group
June 2008**

Topical Strategy Consultation Feedback

David Rossiter

LLW Strategy Development Manager

Date: 19th June 2008

NDA National LLW Strategy Group - June 2008

Summary of Responses

- 13 responses received
- Over 300 separate comments
- Answers to specific questions and general comments
- Covered wide range of organisations:
 - Consignors (NDA and non-NDA)
 - Regulators
 - NDA
 - Government and Local Authorities

Inventory Analysis

1. *Do you agree that 'business-as-usual' is not a sustainable option?*

- High level of agreement
- Have recognised this and have been working on alternative strategies/routes
- Policy requires use of LLWR to be optimised
- Consider requirement/options for another repository as risk mitigation

Inventory Analysis

2. *Do you have any comments about these inventory analysis conclusions?*

- Risk associated with long-term suitability of LLWR
- Consider uncertainty and unforeseen arisings
 - Potential for some ILW to be managed as LLW
 - Potential large volumes of contaminated land
 - Radium from ex-luminising sites
 - Impact of site end-states
- Need to update and keep inventory under constant review

Topical Strategy Approach

3. *Do you have any comments on this approach for organising Topical Strategies?*

- General agreement that approach is appropriate
- Characterisation and categorisation happens regardless of WMH
- Consider cross-cutting themes
 - Public confidence and risk communication (guidance to SLCs?)
 - Holistic approach with conventional waste management
- Opportunity for use of sub-groups

Topical Strategy Approach

4. *Are there any other Topical Strategies you think should be considered?*

- Include financial/costing as separate strategy
- Legislation and regulatory regime (e.g. risk-based clearance, RSA authorisation issues, etc)
- Public confidence and risk communication (guidance for SLCs?)
- Holistic approach with conventional waste management
- Need a cost and inventory baseline
- Use of novel and proven technologies for UK application
- New disposal routes/sites

Waste Hierarchy Overview

5. *Do you agree with the application of the waste hierarchy?*

- Yes!
- However - must consider practicability (dose, ALARP, cost, etc)
- More opportunity for WMH in design of new facilities
- Public confidence and need for robust regulatory oversight
- Inappropriate to impose facilities on unwilling communities

Waste Hierarchy Overview

6. *What are the most important drivers and incentives for implementing the hierarchy? (e.g. regulatory, government policy, contractual, environmental, cost, etc)*

- All of the above are important to some degree
- Availability of alternative routes
- Make it easy to 'do the right thing'
- Financial incentives for the people actually generating the waste
- Performance measures and benchmarking
- Culture change

Waste Hierarchy Overview

7. *Do you believe there are any regulatory constraints or barriers when implementing the waste hierarchy?*

- Regulators want to be aware of real or perceived ‘barriers’ at an early stage – real willingness to address issues
- Potential conflict with ALARP principles
- Some constraints on permitting (e.g. incineration) and variation to authorisations (esp. timescales)
- Lack of landfills for exempt & VLLW (esp. in Scotland)
- Must engage early with planning authorities/local communities
- Other barriers may include funding constraints (e.g. Stop-Start decommissioning, focus on high SED scores rather than ‘spend to save’, etc)

Avoidance /Minimisation

8. *Do you have examples of best practices for the avoidance/minimisation of waste?*

- Removal of packaging prior to entry to active areas
- Limit quantities of materials entering active areas
- Reduction in PPE usage from work planning and area re-classification
- Exempt waste routes
- Cultural issue
- Re-use of materials such as lead and steel

Avoidance /Minimisation

9. *What do you think is the best way to share/disseminate and implement these best practices across the industry?*

- Consignors do own thinking about how to implement WMH – but make access to best practice and R&D available
- NDA sponsor workshops/guidance
- Newsletters
- Best practice database/website (LLWR website?)
- Form a LSG sub-group
- Consider intellectual property issues
- Develop performance measures and benchmarking
- LLWR consignor support should facilitate

Avoidance /Minimisation

10. What are the pros and cons of using financial mechanisms to generate opportunities to re-invest into waste avoidance schemes and technology?

- Generally positive but need more detail on model & mechanics
- Current fee incentive approach has been successful
- Costs cascaded to projects would encourage waste reduction
- Care required to avoid driving wrong behaviours
- Shouldn't be too bureaucratic
- Equitable and appropriate approach needed for non-NDA consignors
- Consignors shouldn't be penalised because of lower packaging efficiencies

Characterisation

11. Do you agree with the proposed approach of developing and implementing more standardised characterisation practices or do you prefer an alternative?

- High level of support for sharing best practices in characterisation and segregation across sites
- Consider working with existing expert groups (e.g. CEWG & others)
- Tool-box approach
- However each site must have flexibility to suit its own circumstances
- Focus on defining standards, objectives or guidance rather than prescriptive methods
- Should be backed up by robust systems of auditing/QA checking

Segregation/ Categorisation

12. What are the main constraints or barriers to implementing waste segregation?

- Potential for regulatory action if mistakes are made
- Lack of appropriate facilities including space & storage limitations
- Potential safety issues/double-handling – balance of ALARP vs. BPM
- Impact on cost and programme to projects
- Lack of characterisation equipment and resources
- Training can help facilitate
- Need somewhere for segregated wastes to go
- In-sufficient volumes of waste to fill current transport containers

Segregation/ Categorisation

13. Do you agree with the proposed approach of segregation at (or near) source or do you prefer an alternative?

- High level of support for sharing best practices in segregation across sites
- Generally near-source was preferable however some central processing might be appropriate - “no one-size fits all”
- Efficient segregation may not be achievable in all cases
- Appropriate containers required
- Treatment routes must be made available for it to be worthwhile

Treatment

14. Do you agree with the proposed approach to waste treatment or do you prefer an alternative?

- General support for use of overseas in short-term where no UK equivalent
- Development of UK facilities preferable in longer-term by supply chain or NDA
- Stockpiling waste might be appropriate - however note WAMAC backlog waste lessons!!
- Likely to be considerable public & stakeholder 'interest' in new facilities (esp. incineration)
- Care required with final waste product and disposability

Re-use/Recycle

15. Do you agree with the proposed approach for re-use and recycling or do you prefer an alternative?

- High-level of agreement in principle for re-use of materials within/between nuclear sites
- Development of appropriate internal/external market or trading system for materials
- May number of opportunities for HVLA and metals
- Must consider material suitability and time-phasing
- Public confidence and acceptability must be addressed

Re-use/Recycle

16. Do you have examples of application of best practices for the re-use and recycling of waste?

- Surface decontamination of metals
- Re-use of lead shielding blocks
- Re-use of demolition wastes for hard-core and site roads
- ‘Hot’ tool stores
- Re-cycled work-wear through active laundry
- Public confidence and acceptability must be addressed

Re-use/Recycle

17. What are the main constraints or barriers to implementing re-use/recycling of waste on a site/regional/national level?

- Public perception!
- Bad PR – recycling success stories are often not published
- Must be an end-use market for re-cycled material from nuclear sites
- Cost and resources to robustly characterise
- Availability of facilities to sort & segregate and treat
- Waste transport / proximity principle
- Obtaining authorisations & regulatory approvals
- Transfer of liability & corporate risk

Disposal

18. What do you perceive are the main constraints or barriers to disposition of Exempt and VLLW waste via the conventional waste management industries (e.g. to landfill)?

- Public perception! – onsite facilities may be more publicly acceptable
- Working with multiple sets of legislation and authorisations
- Lack of regulatory guidance on ‘specified landfills’
- Time taken to obtain disposal authorisation
- Availability of suitable landfill facilities (willing to accept the waste)
- Corporate risk aversion and bad PR (consignor & receiver)
- General pressure on UK landfill capacity

Disposal

19. Do you agree with the proposed approach of tailoring disposal facilities to the waste type or do you prefer an alternative?

- High level of agreement in principle
- Will require careful risk communication with public and local authorities
- Needs to be cost-effective & provide value-for-money
- Appropriate mix of facilities should be looked at further by optioneering
- May be opportunities to in-fill VLLW around LLW in containers

Waste Packaging

20. What forms of packaging solutions would you like to see developed to aid implementation of the waste hierarchy?

- Transport containers that are re-usable
- Incinerable packages
- Alternative to 200litre drums - simple cuboid boxes
- Smaller and modular to suit range of applications/requirements
- Preferable to have common handling arrangements
- Disposal containers must be consistent with LLWR PCSC
- Make concrete containers (recycled demolition wastes)

Waste Packaging

21. Do you agree with the proposed approach to new packages or do you prefer an alternative?

- General agreement that new packages are desirable
- The smaller containers would be good facilitator for segregation
- Need to be cost-effective and meet regulatory requirements
- Must consult with end-users – customer is king!

Waste Transportation

22. What are the most important aspects that would make the LLWR's transport services attractive from a consignor perspective?

- Service must be responsive, reliable, and cost-effective
- Central transport and logistics expertise would be useful (esp. rail)
- Requires appropriate authorisations
- Unambiguous clarification on transfer of risk and title

Waste Transportation

23. Do you agree with the proposed approach to transport or do you prefer an alternative?

- Support for integrated approach
- Minimisation of road transport is generally supported
- However – for some sites it might be inevitable
- Consider available spare freight capacity (esp. in South-East)
- Potential to ‘piggy-back’ on spent fuel shipments
- Issues of stakeholder perception, planning and security for hubs
- Minimisation of movements is desirable
- Explore use of national/regional treatment hubs

Waste Tracking/Inventory

24. What are the key issues associated with the current LLW inventory and how could it be improved?

- Number of datasets – general agreement that there is scope for improvement
- Tendency to overestimate LLW – volume and activity (driven by NDA?)
- Often difficult to predict wastestreams distant in future
- Decommissioning experience often helps refine estimates
- Already some ongoing improvement initiatives (e.g. BRIMS)
- Improvements should be done in partnership with SLCs
- Opening route options will lead to waste being categorised further

Waste Tracking/Inventory

25. Do you agree with the proposed approach of moving towards a secure web-based inventory and waste tracking system or do you prefer an alternative?

- In general the move to electronic systems is supported
- Should be fit-for-purpose and outcome focussed
- Phased approach with testing and shadow working
- System would need to be secure (OCNS & MoD approval)
- Must be robust, backed-up and have contingency if system is unavailable
- How will development overlap with 2G BRIMS?

Consignor Support

26. Would these services be of use to your organisation?

- Yes – would like more detail on these
- Potential for synergies with other SLC in-house teams
- Need to recognise individual site circumstances
- Information should be made available on different treatment and disposal routes
- Sharing of best practices very important
- Support team must demonstrate cognisance of specific consignor contract
- Desire for proper consultation on CFA changes – potential to form sub-group?

Consignor Support

27. Are there any additional services that you would like to see developed?

- LLWR & NDA in a position to improve public perception of LLW disposal – to benefit of all
- Regional/central sort and segregation facilities would be of use to smaller consignors
- Opening up the market for materials
- Is the scope of services appropriate for LLWR?

General Comments

- May be beneficial to separate out straightforward improvements from the fundamental strategy development process
- Current strategy process is ambitious – important to be done properly with full stakeholder participation
- Scottish Govt. fully signed up to LLW Policy
- Impact on LLWR PCSC will need to be considered
- More certainty in LLWR allocations desirable

Summary

- Thank you for the comments
- Very useful feedback both for Topical Strategies and other work-streams
- Comments will be fully considered and used to further develop and mature the Topical Strategies
- Discussion