

2. Waste Management

Read on for further details

Site licence companies (SLCs) are responsible for the management of radioactive waste arising from operations and decommissioning and clean up activities on licensed sites. There are currently no national long-term arrangements for the management of High Level Waste (HLW) or of Intermediate Level Waste (ILW). This means that waste needs to be managed on an interim basis on the NDA's sites, possibly for several decades. Most Low Level Waste (LLW) is currently disposed of at the UK national repository at Drigg.

Key Issues

High Level Waste (HLW) Management

- How to manage the significant quantities of liquid and vitrified HLW arising from reprocessing activities at Sellafield.

Intermediate Level Waste (ILW) Management

- Whether, and how, to rationalise the interim storage of ILW pending the availability of final management arrangements.

Low Level Waste (LLW) Management

- How best to dispose of increasing volumes of LLW.
- How best to reduce the cost of disposal.
- Costs of disposal of LLW at the Drigg facility are very high by international comparisons.
- The future capacity of the LLW facility at Drigg is limited. It will not be able to take all LLW that will arise from decommissioning and clean up operations.

Our Proposed Approach

High Level Waste (HLW) Management

- We will ensure our contractors meet the regulator's liquid HLW reduction targets, which will ensure that HLW is stored in passively safe conditions.

Intermediate Level Waste (ILW) Management

- Our proposed approach is to encourage the Government to reach an early decision on CoRWM's recommendations on the long-term ILW solution.
- In the meantime, we will evaluate the options for national/regional interim storage, taking advantage of potential economies of scale.

Low Level Waste (LLW) Management

- We intend to encourage the Government as part of its LLW policy review to look at the provision of new, more flexible LLW disposal capacity.
- We plan to compete the management and operation of the Drigg facility and the proposed LLW facility at Dounreay together in April 2006.
- We will consider whether there are better, cost effective solutions for LLW other than the disposal facility at Drigg.



We need new solutions for LLW disposal

2.3 LLW

Context

The Drigg facility in Cumbria has been operating since 1959. It is used by non-nuclear users, such as hospitals and universities, for the disposal of their radioactive wastes, as well as for the disposal of LLW generated on nuclear sites.

Issues

The volume and cost issues have been discussed briefly earlier in this section. **The Drigg facility costs are around £1,800 per cubic metre, compared with around £20 per cubic metre in the USA.** Apart from these two issues, **the Environment Agency is currently consulting on its review of the Drigg facility’s authorisation, which determines the wastes that can be disposed of there. The review includes a consideration of British Nuclear Group Sellafield Ltd.’s Post Closure Safety Case (PCSC). The outcome of the review may have implications for the future of the Drigg facility.**

Local authority planning consents will be needed for any additional disposal capacity at the Drigg facility and for any other LLW facilities developed. Applications for planning consents could lead to a Public Inquiry being called.

It may be locally more acceptable, and operationally more efficient, to close the facility at Drigg and to focus on providing a new LLW facility at, or close to, Sellafield. This could potentially take advantage of improved transport links, reduced movement overall and the very latest in design experience.

Approach

We will address the following issues:

- how to **minimise the volume** of LLW that will arise from decommissioning and clean up activities and reduce the demand on disposal facilities;
- what opportunities exist for re-using and **recycling** materials that arise on our sites as part of our decommissioning activities;
- what role **metal smelting and incineration** might play in reducing waste volumes;
- how we could use **decontamination techniques** to enable the release of materials from our sites;
- what opportunities exist to **dispose of LLW on sites where it arises**, subject to considerations of coastal erosion and climate change;
- what other disposal options are available and **how many more Drigg-type facilities might be needed**;
- how to ensure that only those materials that really need to go to the Drigg facility are consigned there;
- how to **reduce the cost** of disposal at the Drigg facility; and
- the potential **environmental implications** of LLW disposal options – including a consideration of climate change predictions.

In general, the NDA’s preferred approach would be to build on the principle established at Dounreay that, where possible, sites should host their own LLW facilities.

We intend to compete the management and operation of the Drigg facility, together with the proposed LLW facility at Dounreay in 2006.



Decommissioning	Waste	Operations	Nuclear Materials	Contracting	Innovation	Finance	Socio-Economic & Stakeholders	Appendix
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