

## UPDATE ON HIGHER ACTIVITY WASTE MANAGEMENT

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### **Introduction**

1. This paper represents the output associated with Task 2a in the CoRWM 2013-2014 workplan. It is presented to update the Committee on developments in NDA's management of higher activity wastes (HAW) over the last 12-18 months. The information discussed here was obtained in a meeting with NDA on 23 September 2013. CoRWM participants were Francis Livens and Janet Wilson, and NDA participants were Andrew Craze (NDA Head of Safety and Environment) and James McKinney (NDA Head of Integrated Waste Management). The paper has been factually checked by NDA.

### **Waste Storage**

2. Given the timescale for GDF operation and the need to progress waste retrieval and conditioning, NDA has been emphasising HAW storage. In November 2012, NDA issued revised guidance. This guidance was peer reviewed before issue and helps NDA to demonstrate compliance with the EU waste directive. The guidance has also been useful to the regulators and the wider industry.

3. Feedback on the way this guidance works in practice is obtained through a 'Stores Operations Forum' which includes all waste producers and NDA. The Stores Operations Forum also feeds into an Integrated Waste Management Theme Overview Group, on which NDA, Government, regulators, waste owners and RWMD are represented, and which provides strategic oversight.

4. There are parallel strategic and technical workstreams supporting HAW storage (Figure 1).

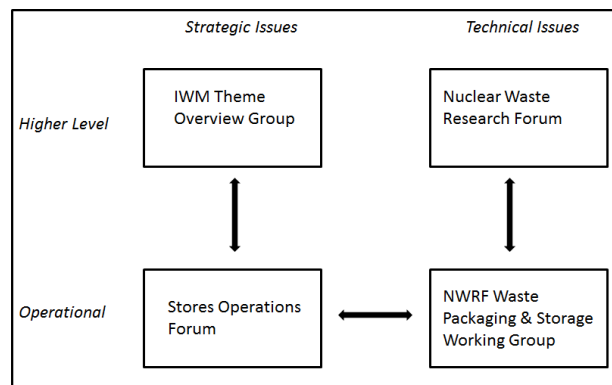


Figure 1. Relationships between different entities in HAW governance

### **Radioactive Waste Inventory**

5. The NDA supports a programme of work to improve the quality of data contained within the UK Radioactive Waste & Materials Inventory. Improvements to the Inventory aim to provide further clarity on the nature and quantities of wastes across the whole of the Inventory, including HAW. Efforts to improve the quality of data are prioritised to focus on those areas that meet shorter term needs or offer the potential to deliver greatest longer term benefits. The NDA is also reviewing the methodology used for collecting Inventory data to improve the efficiency of data collection, and a number of significant improvements will be

introduced for the 2016 Inventory exercise. Longer term changes that challenge the overall approach to inventory data collection are currently being investigated

### ***Graphite***

6. Core graphite represents a large proportion of ILW arisings (approx. 30% by volume) but impact of graphite on the GDF footprint is expected to be relatively small, around 2% of the total GDF volume/capacity.. Bulk core graphite waste is currently expected to arise between 2070 and 2110 as AGR and Magnox reactor cores are dismantled. The long lead time means that there is a significant future workforce demand associated with core graphite removal and NDA is planning to ensure that the relevant expertise is available when required.

### ***HAW in Scotland***

7. A large part of the ILW inventory in Scotland is graphite (approximately 50% by volume) and activated steel (approximately 16% by volume).<sup>1</sup> The ILW inventory in Scotland is very different from that of the UK as a whole, and work is underway to investigate what proportion of the inventory is suitable for near surface disposal.

8. Plans for NDA sites in Scotland are in the process of being adapted, for planning and costing purposes only, to reflect Scottish Government policy. The work is in progress and an update will be given at the next CoRWM meeting.

### ***Upstream Optioneering***

9. The 'Upstream Optioneering' exercise is a 3-year programme which aims to provide greater 'connectedness' across the waste life cycle. NDA is working with the Site License Companies (SLCs) to identify potential opportunities, which may arise across multiple SLCs, or support the GDF programme, or help deliver NDA Strategy. Early examples of topics being examined include the potential of decay storage in allowing waste reclassification, and development of possible options for managing orphan wastes.

10. There has been an improvement in communications between RWMD and the SLCs as a result of the Upstream Optioneering exercise and this has led to a move away from a quasi-regulatory relationship for this particular work area.

### ***Conclusions***

11. We welcome NDA's openness and its willingness to discuss these issues in detail. Our overall impression is that NDA has developed a strategic view of HAW management across its estate, has a clear understanding of its responsibilities with regard to HAW management, and is working hard to make improvements and respond to opportunities.

14. Given CoRWM's other commitments in the current year and the relatively small amount of time available for Task 2a in the current year, we propose to schedule the proposed meeting with Sellafield Ltd on management of HAW early in the 2014-15 financial year.

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<sup>1</sup> Using data from the 2010 UKRWI derived inventory.