

## Problematic Waste IPT

# Inventory data analysis and Prioritisation Calendar

January 2017

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### Background

Integrated waste management is an important component of Nuclear Decommissioning Authority (NDA)'s current strategy with the need to ensure that effective waste plans are being implemented across the NDA estate, recognising the need to manage risks and pursue opportunities at site and estate level.

In order to support NDA's strategy, published in April 2016, an Integrated Project Team (IPT) on problematic radioactive waste, being led on behalf of the NDA by Radioactive Waste Management Ltd (RWM) and LLW Repository Ltd was established in May 2016. The objective of the IPT is to develop a co-ordinated and improved approach to the industry-wide management of problematic radioactive waste. The IPT will act as a focal point for this approach through ongoing communication with stakeholders and will establish a community of practice to enable solutions to be developed and delivered.

Problematic wastes is an umbrella term which describes waste which has no defined or available waste management route or which available routes are significantly sub-optimal, and includes wastes described by waste owners as 'orphan wastes' and 'waste requiring additional treatments'. Waste may be problematic for several reasons, they may: have an unknown provenance or inventory; be insufficiently characterised to enable appropriate waste routing; have additional specific hazards; be unsuitable for standard treatment processes; pose issues to the disposability of a waste package; pose operational or storage issues; or consist of complex mixtures.

### Scope of work

This project analysed the updated 2016 inventory of problematic wastes and examined information on the timings of operational and decommissioning programmes to identify any synergies, opportunities and barriers to the management of the wastes. A prototype Prioritisation Calendar was developed in parallel to summarise and visually display the collated information.

The analysis and the Prioritisation Calendar are required to support the ongoing work of the Problematic Waste IPT in identifying opportunities to improve the management of problematic waste and in developing a preferred strategic position for short-term and medium/long-term opportunities, and to inform the forward work programme for the IPT.

### Output

A number of waste groups were defined and the waste inventory grouped according to their physical, chemical and radiological properties. An analysis of the problematic waste

inventory, integrated for lower activity wastes (LAW) and HAW, was then conducted on a waste group level. A summary of the information has been used to analyse any common barriers to treatment for the waste groups, any potential learning opportunities and priorities. The gaps and uncertainties in data have been recorded. Recommendations for further work that could progress the management of problematic wastes have been made, including the identification of opportunities for shared learning and collaborative working.

A prototype Prioritisation Calendar has been developed which presents information about the inventory and timing of operational and decommissioning programmes to support the identification and prioritisation of opportunities to improve the management of problematic wastes. A report has also been produced which documents the analysis of the problematic waste inventory data, with reference to the development to the Prioritisation Calendar, where appropriate. The Prioritisation Calendar and report have been made available to the waste producer community but will not be published.

### **What are the outcomes and benefits?**

The project has:

- provided a cross-checking across the problematic waste inventory;
- identified synergies across sites and with potential treatment plants, based on times of arising of each waste group and latest treatment dates;
- identified data gaps and uncertainties in the problematic waste inventory;
- identified potentially suitable routes for managing problematic waste groups;
- identified opportunities for shared learning specifically in how problematic waste streams are managed and prioritised;
- identified IPT process developments for the collection, management and presentation of the inventory data; and
- produced a prototype Prioritisation Calendar.

The project outputs will be of benefit to the ongoing work of the IPT in supporting the community of practice in identifying solutions and preferred management routes for problematic wastes.

### **Contact for further information**

If you would like more information on this project or any other work conducted by the problematic waste IPT, please contact us at:

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