

Report Summary

Joint regulatory scrutiny of RWMD's work relating to geological disposal of higher activity radioactive waste: Regulatory inspection of RWMD's provision of disposability assessment and waste packaging advice

Specialists in nuclear and environmental safety from the Office for Nuclear Regulation (ONR) and the Environment Agency have recently completed an inspection of the Nuclear Decommissioning Authority Radioactive Waste Management Directorate's (RWMD's) process of disposability assessment. RWMD operates this process to minimise the risk that the conditioning and packaging of higher activity wastes (HAW) now, will result in packages incompatible with geological disposal in the future. We carried out our inspection to give us confidence that the process is providing licensees with the necessary information to minimise this risk.

Through the inspection we assessed how well RWMD's arrangements for disposability assessment and the provision of advice are functioning. We will undertake further site-based inspections to assess how licensees are taking appropriate account of advice provided by RWMD (we will report on these separately). These inspections are important to provide us with confidence that HAW currently stored on licensed sites will be suitable for safe handling, transport, storage and disposal.

RWMD's disposability assessment process consists of a series of technical evaluations and safety assessments. Where a waste producer's packaging proposals are compliant with RWMD's packaging specifications and safety cases, RWMD endorses the proposals with a Letter of Compliance (LoC). A LoC indicates that RWMD considers that the operator's packaged waste is likely to meet the waste acceptance criteria for any future GDF. LoCs can be issued at conceptual, interim and final stage (cLoC, iLoC, fLoC). RWMD undertakes periodic reviews to ensure previously issued fLoCs remain valid.

Our inspection of RWMD covered the following:

- RWMD's assessment of waste packaging proposals and provision of packaging advice to waste producers.
- Whether RWMD's periodic review provides assurance that packages already generated remain compatible with disposal criteria.
- How RWMD manages the integrity of the packaging advice during significant changes.

- RWMD's arrangements for managing discussions and interactions with interested parties.

We held discussions with staff from across RWMD and considered a sample of RWMD's packaging assessments in detail. The work we examined in this sample covered waste streams from the sites that we will be inspecting later, and represented a cross-section of the types of packaging advice provided by RWMD.

We found RWMD's disposability assessment process is generally robust and:

- provides confidence in the advice it gives to waste producers and reduces risks associated with packaging waste before a geological disposal facility (GDF) is available;
- is subject to continuous improvement; and
- supports progress in decommissioning and clean-up.

However, we also identified some areas that could be improved, including, for example:

- The scheduling and prioritisation of disposability assessments.
- Establishing periodic reviews on the same basis as disposability assessment, and resolving the uncertainty in the current status of fLoCs reviewed to date.
- The assessment of innovative packaging proposals.
- The delivery of internal assurance activities associated with RWMD's provision of disposability assessments and waste packaging advice.

We highlight in the report some areas of good practice we identified, concerning the interactions between RWMD staff and also in their engagement with waste producers.

We will encourage and support RWMD in its work to improve the disposability assessment process and its associated assurance activities.

We will work with RWMD to address the recommendations we have identified through our inspection.

Background

Government policy in England for the long-term management of HAW comprises geological disposal preceded by safe and secure interim storage. In advance of the availability of an operational GDF, RWMD is operating a process of disposability assessment to minimise the risk that conditioning and packaging of HAW now, results in packages that are incompatible with geological disposal in the future.

The Environment Agency and ONR will be responsible for issuing the necessary permits and licences to develop and operate a GDF in England, and we are working together to make sure that a future GDF will meet the required high standards for environmental

protection, safety, security and radioactive waste transportation. Prior to any formal applications to develop or operate a GDF, our role is to provide oversight of RWMD's work through our ongoing Technical and Organisational scrutiny programme. This includes consideration of RWMD's disposability assessment process which waste producers and the regulators use to assist them in understanding the risks associated with waste packaging processes.

This inspection thus forms part of our continuing programme to review RWMD's work related to geological disposal of higher activity wastes. As independent regulators, we are committed to making our work open and transparent.

Full report:

This is a summary of the following report:

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This project was carried out jointly by the Environment Agency's Nuclear Waste Assessment Team (NWAT) and the ONR.

Further copies of this summary, and the full report, are available from:

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