

Inspection of Radioactive Waste Management Limited's provision of disposability assessment and waste packaging advice

Issue 2

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We would welcome your feedback on this document.

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<https://www.gov.uk/government/collections/scrutiny-of-radioactive-waste-management-directorates-rwmd-work>

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Foreword

This summary document is a joint publication by the Environment Agency and the Office for Nuclear Regulation to inform others about our work related to geological disposal of radioactive waste. We will regulate the development, construction, operation and closure of any future geological disposal facility for radioactive waste in England. We are working together to make sure that any future facility will meet our required high standards for environmental protection, safety, security, radioactive waste transportation and Safeguards.

Our early dialogue with Radioactive Waste Management Limited (RWM) will enable it to understand our permitting and licensing requirements and to prepare any future applications to us including e.g. the detailed safety cases that we require in support of permitting or licensing applications. It will also allow us to prepare for any applications we receive from RWM, so that we can respond in an informed and timely manner.

As independent regulators, we are committed to making our work open and transparent. We hope that this report will be useful to others in introducing our standards and requirements for a geological disposal facility and in providing insight into how we will ensure these will be met in any future applications.

Summary

Introduction

Specialists in nuclear and environmental safety from the Office for Nuclear Regulation and the Environment Agency completed an inspection of Radioactive Waste Management Limited's (RWM's) process of disposability assessment in 2013¹. RWM 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 of RWM to give us confidence that the process is providing waste producers with the necessary information to minimise this risk.

We produced an inspection report stating how RWM's arrangements for disposability assessment and the provision of advice are functioning [i]. We also highlighted areas of good practice and identified areas in the process and its operation which could be improved. We then held a series of meetings at waste producer sites² to assess how well they are interacting with RWM and what value they place on the advice provided to them. This report summarises our findings from these meetings. Where appropriate we provided feedback to waste producers on their use of packaging advice but, as the focus of the discussions was on the interactions between waste producers and RWM, we raised no recommendations with waste producers. However, we continue to regulate the management of HAW on nuclear licensed sites as part of our normal regulatory duties.

Examples of good practice

Staff engagement and attitude

Waste producers generally consider that RWM is supportive and available. RWM has become an organisation aiming to help industry resolve issues and it facilitates cross industry working by identifying waste producers with similar packaging problems.

These findings align with Good Practice 3 from our inspection report which states:

There is evidence of good interaction between members of [RWM] and waste producers at several levels in relation to disposability assessment and packaging advice.

Flexibility in disposability assessment process

Waste producers told us that RWM is flexible in its approach to carrying out disposability assessments such that it can focus on specific areas. For example:

- RWM has supported the use of waste producers' Issue Resolution Strategies to manage disposability assessment action points without needing to iterate a full submission and assessment cycle.
- RWM has undertaken generic assessments of some packaging proposals, focussed on common issues to improve the efficiency of similar assessments and the resolution of disposability assessment action points.

We consider these findings are an additional example of good practice.

¹ On 1st April 2014 the Nuclear Decommissioning Authority's Radioactive Waste Management Directorate (RWMD) became Radioactive Waste Management Limited (RWM); a wholly owned subsidiary of the Nuclear Decommissioning Authority. Our recommendations are now directed at RWM which has assumed the responsibilities of RWMD.

² Meetings were held with Sellafield Limited, Magnox Limited and EdF Nuclear Generation Limited.

Assessment outputs and advice

RWM's Assessment Reports are high quality technical outputs that provide waste producers with information necessary to minimise the risk that conditioning and packaging of HAW now, results in packages that are incompatible with geological disposal in the future. However, RWM is also able to provide packaging advice (without completing an Assessment Report) to support waste producers during optioneering exercises, internal project review milestones and engagement with regulators. Waste producers welcome this flexibility in providing assessment output and packaging advice.

We consider this finding is an additional example of good practice.

Areas for Improvement

Planning, Scheduling and Delivery

Waste producers told us that significant slippages have occurred in the timescales for receipt of some packaging advice.

Waste producers are now typically scheduling packaging advice like other contracted services and so RWM needs to increase the project management skills of its Packaging Assessment Managers.

RWM should work with waste producers to continue to improve the scheduling and delivery of its packaging advice, for example, so that where possible the receipt of packaging advice is taken off the critical path of waste management projects.

These findings align with Recommendation 6 from our inspection report which states:

[RWM] should complete its initiatives to improve scheduling and prioritisation of disposability assessments, and in doing so implement a transparent process to plan and prioritise its resources.

We welcome the work RWM has underway with waste producers to develop a forward schedule for disposability assessments. However, waste producers noted to us that inherent uncertainties in their work programmes would make longer term scheduling difficult (beyond 18 months).

Upstream Optimisation

Waste producers are supportive of RWM's work undertaken to date on Upstream Optimisation, and consider it has developed some good initiatives. However, waste producers are uncertain on the plans for delivering the individual workstreams identified by Upstream Optimisation.

Improvements to Disposability Assessment

Evidence from our meetings suggests that on occasion parts of disposability assessment could be applied in a more proportionate manner, that more explicitly takes account of the hazard presented by the waste under consideration and the stage of the disposability assessment.

Waste producers think that the consistency of packaging advice from RWM is improving but that there is room for further improvement.

Waste producers told us of occasions in which changes made by RWM to key data and assumptions provided in their submission had only become apparent once RWM's technical evaluations and safety assessments were completed. RWM should consider whether it could use packaging assessment launch meetings or other hold points to check its understanding of key data and assumptions submitted by the waste producer, and also to provide justification to the waste producer of any changes made to the submitted data and assumptions.

RWM should consider whether it could amend its packaging specifications to make them more user-friendly and help waste producers improve their submissions.

We have raised additional recommendations with RWM as a result of these findings.

Currency of endorsements including Periodic Review

When revising its packaging specifications RWM should first assess the significance of any adverse implications with respect to its existing endorsements. RWM should then use this to inform the extent of changes to the packaging specifications and to identify the need to advise licensees of any mitigating measures that might be necessary.

Waste producers told us that periodic reviews have value but that they are unclear of the current status of waste packaged under Letters of Comfort. Those waste producers currently packaging wastes answered with a different context to those which have yet to begin packaging wastes.

These findings align with Recommendation 14 from our inspection report which states:

[RWM] should work with waste producers to review extant action points associated with fLoCs and periodic reviews to develop a credible plan for their closure.

We note that the Nuclear Decommissioning Authority has recently formed a Historic Wastes Records National Programme. We expect that this will aid the resolution of current uncertainties associated with long-term package records.

SQEP and resources

Waste producers consider that there are some areas in which RWM struggled to have adequate in-house technical resource (e.g. operational safety and package impact performance) to meet waste producer programmes.

Waste producers also told us that the supply chain is resource limited in some areas too (e.g. fire and impact performance, safeguards, safety case development).

Waste producers identified some problems associated with continuity and knowledge management (e.g. one contractor picking up from previous work by others without the full history/context).

These findings align with Recommendation 5 from our inspection report which states:

[RWM] should review its resource requirements to meet the needs of disposability assessment such that delays are minimised.

Organisational Development

To further support its provision of disposability advice RWM should seek to gain a better understanding of the operational constraints and existing obligations on licensed and permitted organisation. This could be considered as part of RWM's ongoing organisational development.

RWM should consider whether establishing itself as the Design Authority for those containers adopted into its Disposal System Specification, would be useful in providing a single and enduring point of contact for waste producers (who are likely to use them over long timescales).

We have raised additional recommendations with RWM as a result of these findings.

Conclusion

Our meetings at waste producer sites have given us confidence that RWM's disposability assessment process provides waste producers with the information and advice necessary to minimise the risks that HAW stored on licensed sites will not be suitable for safe handling, transport, storage and disposal.

We will continue to work with RWM to address the potential areas for improvement we have identified through our inspections and we will encourage and support RWM in its work to improve the disposability assessment process further.

[ⁱ] EA and ONR. 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. Issue 1.0. November 2013.

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