

## Regulators' Review of RWMD's Generic Disposal System Safety Case

The Nuclear Decommissioning Authority's Radioactive Waste Management Directorate (RWMD) published its generic Disposal System Safety Case (gDSSC) in early 2011 as part of its responsibilities to implement geological disposal of higher activity radioactive wastes. The DSSC is termed "generic" because no site has been selected for geological disposal at this stage and the safety case does not focus on any specific site. Instead the gDSSC includes generic environmental, operational and transport safety cases for a hypothetical geological disposal facility.

Safety cases are central to the regulatory processes implemented by the Environment Agency and the Office for Nuclear Regulation (ONR); who together are joint, independent regulators for any future geological disposal facility in England and Wales. A safety case is a structured collection of arguments and evidence that demonstrates to regulators that the safety of an activity or a proposal is satisfactory. A safety case must meet regulatory requirements before a permit or licence can be granted by a regulator.

RWMD is not seeking a permit or licence at this stage so regulators are only providing advice and comment. But it was important for us to review the gDSSC because it provides us with:

1. a basis for early dialogue with RWMD on regulatory requirements and also a means of identifying potential regulatory issues that we might need follow up in our ongoing scrutiny of RWMD's work or that, in the longer term, might be important for any future regulatory reviews of a DSSC;
2. an insight into how RWMD might develop a DSSC for any future geological disposal facility together with an improved understanding of the environmental, nuclear and transport safety arguments that RWMD might present in a such a safety case;
3. assurance that the gDSSC provides suitable support for RWMD's disposability assessments. RWMD currently undertakes disposability assessments to determine whether waste producers' proposals for conditioning and packaging radioactive wastes are consistent with the likely requirements for geological disposal. The process has historically been applied to existing intermediate level wastes but it is being expanded to include high level wastes and also possible future radioactive waste from any new nuclear reactors including spent nuclear fuel that might be disposed of as waste;
4. an opportunity to apply and rehearse our approach for regulatory assessment of a DSSC for any future geological disposal facility. We will be able to use the lessons learnt to improve the effectiveness of our approach and to inform decisions of future resource requirements;
5. an opportunity to develop our approach to presenting and communicating the findings from our review to RWMD and more widely, for example, to communities, local authorities, Government and the public. We are committed to making our

findings publicly available and we recognise that we need to present our findings in a way that is understandable and accessible to non-technical audiences.

6. an opportunity to identify whether further research will be required to underpin the arguments made in the DSSC.

We recognise that the gDSSC represents an early, but important, stage in RWMD developing its approach for assessing the safety of any future geological disposal facility. The Environment Agency has taken account of the generic nature of the environmental safety case when reviewing it against its published guidance on [geological disposal](#). ONR has reviewed the generic operational and transport safety cases in the light of its regulatory requirements and guidance for nuclear installations and the transport of radioactive substances. ONR has taken account of the generic nature of the operational and transport safety cases in its reviews. The gDSSC is not a regulatory submission and we have only provided advice and comment – we are not making any regulatory decisions. Our advice and comment should inform RWMD's work programme on geological disposal and any future development of a DSSC for a geological disposal facility. The combined views of the regulators on the gDSSC have been published on our [joint webpage](#).

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