

Independent Review Panel

The Independent Review Panel was set up by the Geological Society in response to the Government White Paper “Implementing Geological Disposal” published 2014, to review and evaluate the draft national screening guidance.

The UK Government asked the Geological Society to be responsible for overseeing the establishment of this independent review panel, having access to a broad range of well-respected national and international geoscience expertise and other learned bodies.

The remit of the independent review panel was to assess:

- (i) Whether the national geological screening guidance developed was technically robust;
- (ii) Whether this guidance could be implemented using existing, available geological information; and
- (iii) Whether it provided an appropriate assessment of the prospects of developing a robust long-term safety case in a range of geological settings to accommodate the UK inventory of higher activity waste.

This assessment was to be achieved through open discussion and engagement with the developer, the public and interested stakeholders.

The members of the Independent Review Panel were:

Chris Hawkesworth, University of Bristol, Chair
Mike Bickle, University of Cambridge
John Black, Insite Hydro
Bob Chaplow, Independent Consultant
Karin Hogdahl, University of Uppsala
Zoe Shipton, University of Strathclyde
Richard Smith, Laurentian University

The panel met on six occasions in 2015 and 2016, usually with colleagues from RWM and more recently with the colleagues from the BGS. One meeting was held in public, recorded for broadcast on the internet in advance of RWM’s public consultation on the guidance, and one meeting was at the BGS offices in Keyworth to see and ask questions about the extent of information available, including access to the UK3D models. A sub-group of the panel members also reviewed a draft version (dated 12 July 2016) of the Generic Environmental Safety Case prepared by RWM, which covered 4 of the 6 possible scenarios.

The panel has commented on a number of drafts of the National Geological Screening Guidance, and on a draft of the Detailed Technical Instructions and Protocols prepared for the BGS. There has been much discussion of topics that include confidence in geological information and the handling of uncertainty, the nature of geological data, the identification of suitable rock types, the recognition of aquifers and of low permeability lithostratigraphic

units, the implications of the presence of significant underground mineral resources, and the location of structures that might influence the siting of a radioactive waste repository.

The panel supports the approach of developing a general description of the geology of England, Wales and Northern Ireland, subdivided into 13 regions, which will be the basis for identifying areas worthy of more detailed specific study. The present guidance is sound technically and it can be applied generally using existing and appropriate geological information; it therefore provides a basis for assessing the prospects for a GDF safety case in the relevant geological settings. There is increasing agreement on the kinds of data that are presently available and how they might be best presented.

In summary, the Independent Review Panel has reviewed and evaluated the draft national screening guidance, it has assessed, and confirmed that the process followed by RWM in the application of the guidance was technically robust. The Panel is content that an appropriate assessment of the prospects for developing a GDF in a given region has been developed and clearly presented. We note that the role of the Panel did not include proof-reading each of the 13 Regional Narratives or commenting on their factual accuracy. Finally, the Panel notes that challenges remain in improving communication, and in the quality and accessibility of the regional reports being produced by RWM.

Chris Hawkesworth, on behalf of the panel members, August 2017