

ITEM 6: UPDATE ON GEOLOGICAL DISPOSAL FACILITY SITING PROCESS

Report to RWPG, November 15th 2017

This report provides an update on recent developments related to the process for identifying a Geological Disposal Facility (GDF). It covers:

- Consultations on the GDF framework
- GDF Safety Case published
- Geological Disposal: Regulator scrutiny of RWM's work
- NuLeAF web pages on international approaches to geological disposal

1. Introduction

The Government White Paper – **Implementing Geological Disposal: A Framework for the long-term management of higher activity radioactive waste** – was published on 24th July 2014. It proposed a range of activities to be taken forward to set the framework for the GDF site selection process. This paper provides an update on progress with these activities over recent months.

2. Consultations on the GDF framework

Two consultations (one on the community and one on land use planning/NSIP aspects of the GDF siting process) were expected to be launched in late October 2017, but are still awaiting final clearance. At time of writing it is not clear when they will be available, and BEIS has had to withdraw from an opportunity to speak to the RWPG at the meeting on 15th November. They have indicated that they hope to be able to attend the RWPG meeting on 24th January 2018. NuLeAF will circulate the consultations to members as soon as they are released. NuLeAF also plans to circulate draft responses to both consultations to members for comment before submitting.

Given the anticipated publication date of the consultations, it is now likely that the siting process will not be officially launched until at least summer 2018.

3. GDF Safety case published

The UK Government has published the generic Disposal System Safety Case (DSSC) for the GDF¹.

This suite of documents is intended to demonstrate how a geological disposal facility can be designed, constructed, and operated safely. It includes an overview, a series of main reports, and a range of background assessments of specific issues and technical information. A paper on the planned inventory for disposal is also available. As there is no site for the GDF at this stage no location specific issues are addressed, although a detailed site safety case will be required once a site or sites are chosen.

The stated purposes of the generic safety case are to:

¹ <https://www.gov.uk/government/collections/demonstrating-the-safety-of-a-geological-disposal-facility-gdf>

- Demonstrate that RWM is confident that the UK's radioactive waste can be safely disposal of in the UK
- Invite and support discussions with regulators and stakeholders
- Maintain a basis on which RWM can provide advice to waste producers on packaging for disposal, and for assessing the disposability of packages
- Support the siting process by providing information to communities interested in hosting the GDF
- Inform RWM's science and technology plan by identifying research and development needs
- Provide a basis for the early assessment of the suitability of potential sites
- Provide a source of information to support the development of site-specific designs and safety cases

The key elements of the safety case are set out in relation to three main elements of the process:

- Transport of the waste to the GDF – presented in the generic Transport Safety Case
- Construction and operation of the GDF – presented in the Operational Safety Case
- The long-term period after closure – presented in the generic Environmental Safety Case

Overall, the documents conclude that the GDF can be implemented safely in a range of geological environments and that there is greater confidence in the safety case than there was during the previous iteration in 2010. This enhanced confidence is due to improvements in the knowledge base and the further work that has been undertaken on assessments of three illustrative geological environments for the facility.

4. Geological Disposal: Regulator scrutiny of RWM's work

As we progress towards the launch of the siting process, the Environment Agency and Office for Nuclear Regulation (ONR) have established agreements with RWM to review and scrutinise its work in implementing geological disposal and developing a Geological Disposal Facility. This work is intended to:

- Help RWM progress development of a GDF and develop a safety case
- Inform preparation of necessary applications for licenses and permits
- Inform the regulators in their decision making.

A joint EA/ONR annual report on their scrutiny of RWM in 2016/17² was released in October 2017. The report concludes that RWM is making good progress in ensuring it has the correct people, skills and systems in place by the time it applies for an environmental permit and a nuclear site licence. It also highlights areas where the regulators believe RWM needs to improve its performance.

5. NuLeAF web pages on international approaches to geological disposal

The NuLeAF website has been updated to include information on the plans and current level of progress that nations around the world have in developing an approach to the disposal of Higher Activity Radioactive Waste. This information is available here³.

² <https://www.gov.uk/government/publications/scrutiny-of-radioactive-waste-management-annual-report-2016-to-2017>

³ <http://www.nuleaf.org.uk/our-work/siting-a-geological-disposal-facility/international-approaches-to-managing-high-level-wastes>