

ITEM 7: UPDATE ON GEOLOGICAL DISPOSAL FACILITY SITING PROCESS

Report to RWPG, 31st October 2023

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

- Nuclear Waste Services (NWS) Update;
- GDF Community Partnerships;
- CoRWM update; and
- International situation.

1. Introduction

1.1 The UK Government's policy on **Working with Communities – implementing geological disposal** was published in December 2018¹, with the equivalent policy for Wales published in January 2019². The **National Policy Statement**, governing the planning aspects of the GDF in England, was published in July 2019³.

2. Nuclear Waste Services (NWS) Update

2.1 NWS has published its **Annual Review 2022 to 2023**⁴, covering its first full year of operation as an integrated waste management agency. The report notes:

- That the Low-Level Waste Repository (LLWR) operated over the year with zero major safety incidents.
- Continued progress in diverting waste away from disposal at the LLWR through a range of characterisation and treatments. Almost 1,700 tonnes of metallic waste was treated with 98% released for recycling.

¹ <https://www.gov.uk/government/publications/implementing-geological-disposal-working-with-communities-long-term-management-of-higher-activity-radioactive-waste>

² <https://gov.wales/geological-disposal-higher-activity-radioactive-waste-guidance-communities>

³ <https://www.gov.uk/government/publications/national-policy-statement-for-geological-disposal-infrastructure>

⁴ [NWS Annual Review 2022 to 2023 – Making nuclear waste permanently safe, sooner - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/nws-annual-review-2022-to-2023)

- Progress was made with the GDF siting process with 3 communities currently engaged following the recent decision not to proceed further in Allerdale (see below).

There will be an opportunity to hear more from NWS on their management of Low-Level Waste (LLW) during this RWPG meeting.

3. GDF Community Partnerships

3.1 On the 28th September it was announced that NWS had decided not to continue with the GDF siting process in **Allerdale**⁵. This follows an evaluation of information gathered which concluded that only a limited volume of suitable rock was identifiable and that the geology of the area was therefore unlikely to support a post closure safety case.

Corhyn Parr, CEO for NWS, commented: *'After careful consideration NWS has reached a decision not to take Allerdale further in our search for a suitable site to host a GDF. We need enough suitable geology to accommodate a GDF and to support safety cases to build, operate, and close the facility. Our assessments show evidence of limited volume of suitable rock for a GDF in the Allerdale search area, including the adjacent inshore area.'*

We wish to thank the Community Partnership and the Chair for their hard work, time, and commitment. They have been instrumental in active local engagement and working with community groups who we have been able to support through NWS community funds. There is a positive legacy to the Allerdale community's participation in the process, with around £2 million GDF Community Investment Funding supporting over 50 local projects which we will continue to support.'

It is understood that the **Allerdale Community Partnership** will continue to operate until the end of March 2024. There is interest in how NWS manage the process of withdrawing from the area given this is the first time the developer has chosen to do so.

The decision to withdraw leaves three communities in the process, two in Cumberland and one in Lincolnshire.

3.2 Aerial surveys off the coast of **West Cumbria** and **Lincolnshire** are due to commence shortly. The aim is to capture information on the presence and numbers of birds and marine wildlife. This will be combined with other environmental surveys to provide baseline data to help assess if the areas are suitable for a repository.

⁵ [NWS decides not to take Allerdale further in GDF siting process due to limited suitable geology - GOV.UK \(www.gov.uk\)](https://www.gov.uk/news/press-releases/nws-decides-not-to-take-allerdale-further-in-gdf-siting-process-due-to-limited-suitable-geology)

Simon Hughes, Director of Siting and Communities at Nuclear Waste Services, commented: *'These aerial surveys are an important part of gathering the data we need to understand the environment of an area. The plane will fly at a low altitude, at least 1600ft (500m) height in accordance with recognised best practice, yet be high enough not to disturb the wildlife being observed.'*

4. CoRWM Update

4.1 The **Committee on Radioactive Waste Management (CoRWM)** has published its work programme for 2023 and 2024⁶. They identify community engagement as a priority area of focus within their general scrutiny and advice to DESNZ, Welsh Government and NWS. Other work will include:

- Scrutiny and advice on the management of the UK inventory of radioactive waste, spent fuel and nuclear materials, and their storage and disposal. This includes near surface and in situ disposal for radioactive waste and potential disposal of spent fuel and nuclear materials in a GDF should they be declared as waste.
- A review of the implications of the UK Government and Devolved Administrations' proposals to update nuclear decommissioning and managing radioactive substances policy.
- Advice on the nature and management of potential radioactive wastes arising from small and advanced modular reactors.

4.2 The Committee has published a paper on the **potential use of robotic systems** in a GDF⁷, the aim being to minimise the need for human entry. The report highlights a range of issues that will need to be considered if robotic systems are to be used. These include the risks of damage to electronic systems by radiation, the need to design a GDF so that any remote systems can be maintained and repaired, and the importance of designing hardware and software so that these can be updated over the many decades that a GDF will operate for.

5. International news

5.1 The BBC has published an online article and video report of a visit to the **Onkalo** geological repository in Finland. This is the first repository to be developed worldwide. It can be viewed here⁸.

⁶ [Committee on Radioactive Waste Management \(CoRWM\): programme of work 2023 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/115555/Committee_on_Radioactive_Waste_Management_CoRWM_programme_of_work_2023-2024.pdf)

⁷ [Potential use of robotic systems in the geological disposal facility - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/115555/Potential_use_of_robotic_systems_in_the_geological_disposal_facility.pdf)

⁸ [The place where no humans will tread for 100,000 years - BBC Future](https://www.bbc.com/news/health-64111111)