ITEM 6: UPDATE ON GEOLOGICAL DISPOSAL FACILITY SITING PROCESS

Report to RWPG, 25th January 2022

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

- Geological Disposal Facility (GDF) Siting Process;
- RWM Update;
- 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 2018[1], with the equivalent policy for Wales published in January 2019[2]. The **National Policy Statement,** governing the planning aspects of the GDF in England, was published in July 2019[3].

2. Geological Disposal Facility (GDF) Siting Process

2.1 It was announced on the 14th December that a second GDF Community Partnership (CP) has been formed in Copeland. This Partnership covers the electoral wards of Millom and Black Combe and Scafell in the south of the local authority area. The Lake District National Park and its proposed extension have been excluded from the Search Area, but there is significant interest in the scope for the underground element of the repository being located in deep geology offshore. A dedicated website has been set up and Community Investment Funding of up to £1million a year has been made available[4].

Given the formation of both the South and Mid Copeland Community Partnerships, the Copeland Working Group has come to an end. The founder members of the Community Partnerships include local councillors, RWM, Copeland Borough Council and CALC (Cumbria Association of Local Councils). It will be up to these members to decide who else should join the Partnership to represent the local community.

[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] https://southcopeland.workinginpartnership.org.uk/second-gdf-community-partnership-forms-in-copeland/

2.2 Allerdale joined Copeland in launching a Community Partnership on the 18th January 2022[5]. Initial members include Allerdale Borough Council, CALC, RWM, Cumbria Chamber of Commerce and Inspira, a local skills development body. As in Copeland, Community Investment Funding can now be accessed by local organisations.

The Borough Council agreed to join the Partnership at a meeting on the 26th November last year, on the condition that the Solway AONB (Area of Outstanding Natural Beauty) was excluded from the Search Area. The Lake District National Park is also excluded. Cllr Marion Fitzgerald, deputy leader and the council's representative on the Community Partnership commented *'Participation of a principal local authority is necessary for a Community Partnership to be formed. When one is formed it simply means that the conversation can continue and that Radioactive Waste Management will be able to carry out further, more detailed investigations. It means just that and nothing more.'*

2.3 It is unlikely that Hartlepool will progress to establishing a GDF Working Group following local resistance[6]. Interest in engaging in the siting process had been led by the Wharton Trust, a local community organisation. But no local councillors supported the proposal and there was strong opposition from the Tees Valley Mayor and the local MP.

Sasha Bedding of the Wharton Trust commented *'Disappointingly, our democratic right to have a conversation has been curtailed. It's a real shame our town, which has benefited enormously from the production of that waste, isn't in a position to have an informed conversation about what to do with that waste that we have created.'* Mr Bedding pointed to the contradiction between the opposition to waste disposal facility and the local support for a new nuclear station in Hartlepool, which would require surface storage of waste for over 60 years.

2.4. A study by Sheffield University has claimed that the entire UK inventory of high-level waste from fuel reprocessing could be disposed of via boreholes. A GDF would still be required for the large volumes of ILW but the use of boreholes would reduce the cost and scale of the deep repository required[7].

3. RWM Update

3.1 It has been announced that RWM is undertaking work to commission non-intrusive marine geophysical surveys[8] in coastal waters around where Community Partnerships are formed. Work could begin in summer 2022, earlier than originally

[5] https://allerdale.workinginpartnership.org.uk/geological-disposal-facility-gdf-community-partnership-launches-in-allerdale/
[6] https://www.hartlepoolmail.co.uk/news/environment/talks-on-multi-billion-pound-nuclear-waste-facility-in-hartlepool-stall-amid-lack-of-council-support-3509138
[7] https://www.theengineer.co.uk/boreholes-nuclear-waste-drilling-sheffield/
[8] Progress in GDF Siting Process: Marine Geophysical Surveys - GOV.UK (www.gov.uk)

envisaged, and will provide three dimensional images of the deep geology, either below the land or seabed.

3.2 Nuleaf's Executive Director met with Simon Hughes, Community Engagement and Siting Director at RWM on the 12th January and with Rachel Roffe, Head of Stakeholder Engagement off RWM on the 18th January. The meetings covered the progress being made with the GDF siting process and the role of Nuleaf in advising and supporting RWM. It has been agreed that separate quarterly meetings will now be held between Nuleaf and both Simon and Rachel.

3.3 Following the retirement of Prof. Cherry Tweed, RWM has appointed Neil Hyatt as its new Chief Scientist. Neil, who is based at the University of Sheffield, has a wealth of experience in the treatment and management of radioactive waste, and has held national and international leadership roles supporting academia, industry and the government. He is currently a member of the government's independent Committee on Radioactive Waste Management (CoRWM). Prof. Cherry Tweed has been working on geological disposal since 1985 and Nuleaf wishes her well in her retirement.

3.4 RWM has released a new video explaining its mission and the need for a GDF[9].

4. CoRWM Update

4.1 CoRWM members undertook a visit to the Culham Centre for Fusion Research (CCFE) in early December 2021[10]. CoRWM's interest in fusion is primarily in relation to the regulation of radioactive waste. CoRWM has also recently published a preliminary position paper on this topic[11] and its response to the recent BEIS consultation[12].

5. International situation

5.1 A study commissioned by Norwegian Nuclear Decommissioning (NND) on behalf of the European Repository Development Organisation (ERDO) has concluded that deep borehole disposal is a viable and cost-effective solution for all the long-lived

[9] https://www.youtube.com/watch?v=X3USS9Dskn0
[10] https://www.gov.uk/government/news/nuclear-fusion-and-radioactive-waste-regulation-corwm-members-visit-the-culham-centre-for-fusion-energy?utm_medium=email&utm_campaign=govuk-notifications&utm_source=47c18e4c-ae35-48c5-b72d-818a2d72afab&utm_content=immediately
[11] https://www.gov.uk/government/publications/radioactive-wastes-from-fusion-energy-preliminary-position-paper
[12] https://www.gov.uk/government/publications/towards-fusion-energy-corwm-response-to-beis-consultation?utm_medium=email&utm_campaign=govuk-notifications-topic&utm_source=a7db0c1c-22c3-4a71-99a7-9bb629658348&utm_content=immediately

heat generating nuclear waste that is being stored in 5 European countries – Croatia, Denmark, the Netherlands, Norway and Slovenia[13].

One or more deep geological repositories will still be required for the bulky Intermediate Level Waste (ILW) and non-heat generating High Level Waste (HLW). However, the use of boreholes for part of the waste inventory could lead to significant cost savings overall. The report has recommended that the next stage should be the development of a full-scale demonstrator project.

5.2 On the 22nd December the Swedish Government approved the extension of the final repository for short lived radioactive waste in Forsmark. The extension is required to accommodate decommissioning waste from Sweden's current nuclear power plants. The application for a permit to extend the repository was submitted in 2014 and was approved by the regulators and Östhammar municipality. Following Government approval, the decision requires final ratification by the regulatory bodies.

The Swedish nuclear waste management body (SKB) has also applied for a license to build a final geological repository and an encapsulation plant. The Government has committed to making a decision on this issue by the 27th January 2022.

[13] https://www.world-nuclear-news.org/Articles/Deep-borehole-disposal-suitable-for-ERDO-countries