

ITEM 5: UPDATE ON NATIONAL DEVELOPMENTS IN RADIOACTIVE WASTE MANAGEMENT



Report to RWPG, 18th July 2023

This report provides an update on recent developments in radioactive waste management. It covers:

- NDA Group update;
- UK Government update;
- New nuclear development;
- Fusion Power;
- Regulatory update;
- AGR Update;
- Cllr. David Southward.

1. NDA Group update

1.1 Nuleaf and Cumberland Council attended the **Integrated Waste Management (IWM) Forum** in Manchester on the 20th June. Along with reports from Nuleaf and regulators the meeting heard updates from a range of partners.

The **Nuclear Decommissioning Authority (NDA)** reported that they have undertaken a Storage Strategy Review with this work now at the implementation phase. The review looked at the optimal approach to storage taking into account the expanded nature of NDA given responsibilities for AGR decommissioning. The new approach is likely to lead to new waste streams being assigned to existing stores, to the development of new waste stores and to implications for the transportation of waste.

NDA is looking at a unified approach to waste packaging. The cost of packaging is estimated at almost £6Bn across the NDA mission and so anything that ensures greater standardisation has the potential to save significant sums.

Other NDA updates were that:

- Work is underway on the 2022 GDF Waste Inventory. It is expected that this will be published in early 2024.

- A Radwaste Strategic Position Paper has been prepared and is supporting a Treatment Toolkit.
- A group waste model has been developed. This will help examine future scenarios and changes to the current IWM inventory.
- There are an estimated 85,000 tonnes of graphite on the NDA estate. This is a huge volume and so management and disposal will prove challenging.

The **Department of Energy Security and Net Zero (DESNZ)** reported that they had received almost 200 responses to their recent decommissioning and radioactive waste policy consultation. The Department is working through these and will publish a response to all the points raised in due course. This will then lead to the publication of the final policy, but they cannot give a date for when this may be.

The **Environment Agency (EA)** is updating the Guidance on Requirements for Authorisation (GRA) that supports the solid waste destined for the GDF and Near Surface Disposal (NSD). They plan a consultation before the end of 2023 and expect the update to be released in 2024. Nuleaf has been in discussion with the EA on hosting a RWPG session on this topic during the consultation period.

EDF spoke about the waste aspects of their new nuclear build programme. They expect the first waste to arise at Hinkley C in around 2028 and at Sizewell in the mid-2030s.

Rolls Royce highlighted their challenges of recruiting skilled workers and the launch of their Skills Academy that will train 200 apprentices per year for the next decade. The company is also planning an expansion of their production of submarine reactors following the signing of the AUKUS agreement between the UK, USA and Australia.

1.2 Magnox have marked the 75th anniversary of the opening of the oldest large reactor in Europe, the **British Experimental Pile Operation (BEPO)** on the Harwell site¹. BEPO was initially used to make plutonium but subsequently became a research reactor, producing radioactive isotopes for medical purposes. It also helped the study of the performance of the reactor core and cooling systems that were used in the Magnox and advanced gas cooled reactors.

Eleven research reactors on the Harwell site have already been decommissioned and cleared. Planning for the dismantling of the BEPO reactor is underway.

1.3 Nuleaf's Chair and Executive Director participated in a NDA **Innovation and Technology Roadshow** at the Energus centre in Cumbria on the 8th June². Philip

¹¹ [Magnox BEPO reactor 75th Anniversary - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/news/magnox-bepo-reactor-75th-anniversary)

² [NDA keeps the conversation going with its Cumbrian stakeholders - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/news/nuleaf-keeps-the-conversation-going-with-its-cumbrian-stakeholders)

Matthews chaired a session looking at the way ahead for engagement between industry, academia and communities. A similar event was held in Glasgow on the 28th June, and it is planned to also hold workshops in Bristol and Bangor, North Wales at a later date.

These events take the place of the regular NDA Stakeholder Summit, which will not be held in 2023.

1.4 It has been announced that **Westinghouse Environmental Services**, part of the Westinghouse Group, plans to open a decommissioning hub at Menai Science Park on Anglesey³. This will create 15 jobs initially but there are plans for expansion in future.

A spokesperson for Westinghouse commented *'As part of our futures strategy, Westinghouse has selected North Wales due to its vast nuclear capability and capacity relating to the proximity of Wylfa and Trawsfynydd Power stations. We want to tap into this capability to invest, grow and develop specific nuclear decommissioning solutions to the NDA's objectives in the UK.'*

1.5 Martin Chown has left his post as CEO of Sellafield to take up a new role in the private sector. It has also been announced that Dr. Roz Rivas will complete her term as NDA Chair in August 2023 and will be replaced by Chris Train on an interim basis. A process to recruit a permanent replacement will commence shortly.

2. UK Government update

2.1 Penny Dunbabin has moved from DESNZ to take up a new role at the Home Office. Penny engaged with the RWPG on a range of issues over the last 6 years and we wish her well.

Tom Rookes and Adam Sharman will be taking over Penny's work areas. These include ONR delicensing guidance, potential changes to EIADR, publication of user guidance on on-site disposal in England and potential amendments to the Funded Decommissioning Programme guidance.

3. Advanced Modular Reactors (AMRs)

3.1 Nuleaf held a well-attended and successful session on AMRs as part of the June Steering Group meeting. Presentations were delivered by DESNZ, National Nuclear Laboratory, ONR, the Committee on Radioactive Waste Management and Nuclear

³ [US nuclear giant to open new offices on Anglesey - North Wales Live \(dailypost.co.uk\)](https://www.dailypost.co.uk/news/US-nuclear-giant-to-open-new-offices-on-Anglesey-North-Wales-Live)

Free Local Authorities with this being followed by a range of questions and comments. A full note of the session will be circulated in the near future.

4. Fusion Power

4.1 The UK Government has announced plans to develop a virtual prototype of the planned STEP reactor in Nottinghamshire that will open in the 2040s. The digital twin is being developed by UKAEA along with Cambridge University, Dell and Intel. It will enable the feasibility of the project to be assessed and is due for completion in 2024⁴.

5. Regulatory update

5.1. The Office for Nuclear Regulation (ONR) has published its **Corporate Plan 23/24**. This sets out how the regulator intends to deliver effective and consistent regulation⁵.

6. AGR update

6.1 The defueling of Reactor 21 at the **Dungeness B** site got underway in late May 2023. The target is for defueling to be complete by 2028, after which the station will be transferred to the Nuclear Decommissioning Authority for decommissioning.

7. Cllr. David Southward

Cllr. David Southward passed away on the 16th June. David was a regular attendee at Nuleaf meetings and also active on behalf of Cumbria County Council in a range of work on nuclear and the energy sector. Our thoughts and best wishes are with his family, colleagues and friends.

⁴ [UK to develop virtual prototype of nuclear fusion plant \(power-technology.com\)](https://www.power-technology.com/news/2023/06/20/uk-to-develop-virtual-prototype-of-nuclear-fusion-plant/)

⁵ [ONR Corporate Plan](https://www.onr.gov.uk/corporate-plan/)