

ITEM 7: UPDATE ON NATIONAL DEVELOPMENTS IN RADIOACTIVE WASTE MANAGEMENT



Report to RWPG, 21st July 2022

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

- NDA Group update;
- UK Government Update;
- Nuleaf news;
- Regulatory update; and
- International news.

1. NDA Group update

1.1 Nuleaf's Executive Director, along with Jonathan Cook of Copeland Borough Council, attended an online **Integrated Waste Management (IWM)** Theme Overview Group (TOG) on the 23rd June. The meeting included the following updates:

Metallic Waste Treatment Strategy The NDA has a significant volume of radioactive metallic waste that it needs to treat, with an estimated cost of £3-4Bn to complete this process. Currently smelting facilities are located in various European countries along with the USA, but the NDA is considering storing wastes in the UK for the next few years to enable the development of a UK facility. It is felt this will be better economically and in terms of wider social value. At this stage it is not clear how the siting and planning processes for such a facility would operate.

Integrated Waste Implementation Plan (IWIPs) NDA is developing IWIPs for each site. These will replace Integrated Waste Strategies (IWS). The aim is that the IWIP will facilitate better waste management at both a site level and across the NDA estate and:

- Ensure there is a clear link between Government policies, NDA and site waste strategies, and the implementation of site waste management plans. It will enable the development of each to be influenced by the others in a flow of information between relevant stakeholders and authorities;
- Enable a clearer demonstration of how NDA Strategy is being implemented;
- Provide NDA and Government with clear up-to-date information upon the current position regarding waste management across the NDA estate;
- Act as a coherent, transparent strategic stakeholder communication tool;
- Inform NDA IWM Strategy, and better coordinate waste management activities and plans across the estate.

Strategic Review of the non-radiological waste inventory. NDA are launching this project shortly which will run to December. It will have a main aim of addressing the issues around non-radioactive wastes which are significantly greater in volume than the radioactive wastes that the NDA will generate. A conventional waste group will be established within NDA to help take forward this work with an overall aim that by 2035 there will be zero waste to landfill. Nuleaf has contacted NDA to understand how local authorities are to be engaged in this work as it moves forward.

Nuleaf's Director also participated in a **Critical Enablers TOG** on the 1st July. This included:

A presentation from Jacq Longrigg on people and skills. Jacq reported on the completion of a Beacon Project on the **NDA Leadership Academy and Group Talent** and on plans for a **Beacon on Skills** in 2022/23. The targets for the Skills Beacon include:

- Production of a medium-term strategic workforce plan with a focus on cyber skills.
- Development of a group wide Graduate development programme and campaign.

A session on plans for the development of an **NDA Group Energy Strategy**. This will consider how the Group and sites will reduce consumption and generate low carbon energy in future.

An update from Jamie Reed on the NDA's work on **socio-economics and social value**. He noted that NDA has completed new Economic Impact Assessments for the estate. Three studies have been undertaken, covering West Cumbria, Magnox and Dounreay. Nuleaf will invite Jamie to give a presentation on these reports to a future Steering Group meeting and circulate the studies when available.

1.2 On behalf of Nuleaf, Rob Ward of Copeland Borough Council participated in a panel discussion on optimised waste management and site end states at the **IWM22 conference** in Manchester on the 15th June¹. Other panel members were from the Environment Agency, NDA, Magnox, DSRL and the Nuclear Industry Group on Land Quality (NIGLQ).

Among the issues that were highlighted by the discussion were:

- The challenges in defining an 'optimal' site end, accounting for safety, environmental impact, cost, stakeholder expectations and the community's vision for the future of their place.

¹ <https://iwm2022.org/>

- The need to move from consultation to participation - achieving sustainable site end states should see industry, supply chain, regulators, local planning authorities, councils and communities working together.
- To achieve a successful outcome, there is a need to build capacity and capability within the system (industry, supply chain, regulators, planning authorities) to navigate the touchpoints with complicated and overlapping regulatory regimes. It is not clear whose role it is to see the big picture.

Further work in this area is planned and Nuleaf has been invited to take part.

1.3 Nuleaf planning officers met with NDA on the 20th June to discuss the work of the **Nuclear Industry Group for Land Quality – Planning (NIGLQ-P)** and developing work by NDA around land use and waste planning. The meeting was well attended by RWPG members.

Frank Wigley of NDA explained that NIGLQ-P included members of each of the NDA Group companies and will be expanded to involve EDF and AWE. Its purpose is to share and understand where there are issues and opportunities. They have an interest in more direct engagement with Nuleaf members.

Time has been set aside on this RWPG agenda for members to offer their perspective on the meeting and on future engagement. The note of the meeting has been included as part of the meeting papers.

1.4 The NDA has launched its annual **Stakeholder Survey**. This is seeking views on the NDA's performance. Nuleaf's officers and a number of our members have been invited to take part in phone interviews to offer their opinions. An online survey is also live for anyone who wants to participate².

1.5 A significant decommissioning milestone was achieved in June 2022 with the safe removal of the first batch of waste from the **Magnox Swarf Storage Silo** on the Sellafield site³. The building has stored nuclear waste in water filled chambers for 60 years and the aging structure is one of the most hazardous nuclear sites in the UK. The removal of waste, using purpose-built machines, will take around 20 years. The waste will be placed in containers and eventually sent to the GDF.

1.6 A start-up company, **Newcleo**, has announced plans to develop a lead-cooled fast reactor that will use a mix of uranium and plutonium as fuel. The company claims the new design could burn up to 1 tonne of waste per year and thus reduce the stockpile of 140 tonnes of Plutonium currently stored at Sellafield.

1.7 **Copeland Borough Council** has voted to submit a bid to the UK Government's Levelling Up Fund to support the development of an **Industrial Solutions Hub**

² https://online.ors.org.uk/questionnaire/13216CE?clear_session=true&language=en

³ <https://www.gov.uk/government/news/first-waste-removed-from-old-nuclear-sellafield-store>

(iSH) at Cleator Moor. The development aims to create more than 700 jobs along with skills and training opportunities in clean energy and nuclear decommissioning. The plan is also backed by the NDA, with Government funding accompanied by £7 million from the Nuclear Decommissioning Authority's Socio-Economic Fund and £2.3 million from Sellafield's Social Impact Fund.

Jamie Reed, NDA director of socio-economics, commented *'The NDA and Sellafield Ltd have worked with local partners over recent years to bring these ideas forward and to ensure that the Industrial Solutions Hub has reached this point. This is part of a series of socio-economic projects we have collectively helped to fund over recent years including Campus Whitehaven, the Bus Station and more. Our socio-economic agenda is an important part of our legacy as we continue to make progress against our decommissioning mission and we're committed to working with local partners to co-create future projects that help to strengthen and diversify the local economy.'*

Cllr David Moore, Nuclear Portfolio holder at Copeland Borough Council and Nuleaf Chair, stated *'When we look at the Industrial Solutions Hub...it's not just local, it has international and national permutations...as the nuclear industry at Sellafield starts to complete its clean-up work, we'll need to look at international markets where we're going to expand and bring in that new skill base.'*

1.8 Local development company Cwmni Eginio has stated its ambition for **Trawsfynydd** to be the site of the UK's first Small Modular Reactor (SMR) with a target date of 2027 for construction to begin. This follows the recent announcement that the NDA and Cwmni Eginio will work together on proposals for the siting of a new nuclear development at the decommissioning site⁴.

Cwmni Eginio chief executive, Alan Raymant, said: *'By connecting the energy security challenge with the socio-economic challenge, we believe that future development at Traws can create many win-wins. As well as delivering benefits locally, there's huge scope to promote supply chain, skills development and business opportunities in the wider north Wales region and across the UK.'*

Local anti-nuclear group PAWB has called for the Welsh Government to withdraw its support for the proposal and target investment in renewable energy instead.

1.9 The NDA published its **Annual Report and Accounts 21/22** on the 14th July. The Report reflects on the restructuring of the NDA Group and highlights achievements including the removal of the diffuser at the Windscale Pile Chimney and the transfer of the first active waste package to the new interim storage facility at Chapelcross. The reports can be read here⁵.

⁴ <https://www.gov.uk/government/news/joint-collaboration-to-support-potential-future-development-at-trawsfynydd>

⁵ <https://www.gov.uk/government/publications/nuclear-decommissioning-authority-annual-report-and-accounts-2021-to-2022>

The NDA has also published the **annual statement on its decommissioning account**, which sets out the notional funding available for NDA activities⁶.

1.10 Magnox has launched a new **Supply Chain Strategy** which aims to support more effective and long-term engagement with suppliers and support local economies⁷.

2. UK Government update

2.1 The UK Government's response to the recent consultation on a proposed **regulatory framework for fusion energy** has been published⁸. Nuleaf was one of 58 organisations and individuals to submit views on the proposals.

In their response the Government has confirmed that it intends to regulate future fusion energy facilities under the same legal framework as at present. It states that *'While the hazard and complexity of fusion energy facilities will be greater than current research facilities, we remain confident that existing regulations in the UK will be able to uphold safety standards in a proportionate way. We are also clear that the fundamental differences between nuclear fission and fusion mean that it would be disproportionate and unnecessary to incorporate fusion energy facilities into nuclear regulations.'*

It is expected that the proposal to maintain the current regime for fusion regulation will be incorporated in the upcoming Energy Security Bill, announced in May's Queen's Speech.

2.2 The **Energy Security Bill** was introduced into Parliament on the 6th July. It is designed to enable investment in a range of new, low carbon energy technologies and well as supporting an energy price cap. The Bill also:

- Supports the decommissioning and clean-up of legacy nuclear sites by clarifying that a GDF located beneath the seabed will be licensed.
- Brings forward the final delicensing and re-use of nuclear sites, allowing more proportionate clean-up of these sites. The Government estimates this will deliver savings of around £490 million over the first 20 years, with similar savings up to 2080.⁹

3. Nuleaf news

3.1 The Nuleaf Steering Group met in person on the 15th and 16th June, the first time there had been a face to face gathering in over 2 years. In addition to the meeting,

⁶ <https://www.gov.uk/government/collections/nuclear-decommissioning-funding-account>

⁷ <https://www.gov.uk/government/news/new-magnox-supply-chain-strategy>

⁸ <https://www.gov.uk/government/consultations/towards-fusion-energy-proposals-for-a-regulatory-framework>

⁹ <https://www.gov.uk/government/news/plans-to-bolster-uk-energy-security-set-to-become-law>

a dinner and social event was held, and presentations given by Magnox and those involved in the decommissioning of the Hinkley Point A and B sites. Feedback on the event has been positive and it is planned to hold a similar gathering next year in a different location.

3.2 A final **Service Plan 2022-23** has been prepared and posted on the [Nuleaf website](#).

4. Regulatory update

4.1 The **Office for Nuclear Regulation (ONR)** has published its Corporate Plan 2022/23. It sets out 5 ambitions for this year, namely:

- Influence timely and enduring improvements across the nuclear industry.
- Promote innovation through our regulation and our organisation, sustainability in our operations, and collaboration across our regulatory functions and corporate services.
- Increase openness and transparency across our work.
- Live all our values all the time, advocating equality, diversity and inclusion.
- Drive simplification and efficiency in our systems, practices and processes.

Mark Foy, ONR's Chief Executive and Chief Nuclear Inspector, said: *'As ONR, like organisations worldwide, emerges and adjusts to the changes the pandemic has brought, we are maximising our efforts to evolve into an increasingly more efficient, modern and transparent regulator, delivering trusted outcomes and value.'*

4.2 The Environment Agency has launched a consultation on how radioactive waste will be stored at the **Hinkley Point C** plant. This relates to a proposal from the operator to change from 'wet' to dry storage of waste¹⁰ prior to disposal in a GDF.

5. International News

5.1 The IAEA held a webinar online on stakeholder engagement in radioactive waste management on the 1st June as part of a series of webinars on stakeholder engagement in nuclear power. Other topics covered include public surveys, social media, communication on nuclear waste and engagement with policy and decision makers. Recordings of the events can be found here¹¹.

¹⁰ https://www.gov.uk/government/news/proposed-change-to-how-hinkley-point-c-stores-radioactive-waste?utm_medium=email&utm_campaign=govuk-notifications-topic&utm_source=f91153f2-df26-451d-84e0-e10ad1bd9090&utm_content=immediately

¹¹ <https://www.iaea.org/si-webinars>