

<b>Meeting:</b>	NuLeAF Steering Group, 29 <sup>th</sup> January 2020
<b>Agenda Item:</b>	9
<b>Subject:</b>	Update on national developments in radioactive waste management
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<b>Purpose:</b>	This paper provides an update on recent developments in radioactive waste management and Nuclear Decommissioning Authority (NDA) operations

## **Introduction:**

This paper updates members on recent developments in radioactive waste management and NDA operations. It covers:

- Reports from Theme Overview Group (TOG) meeting;
- NDA Update;
- Strategy 4 Update;
- BEIS Update;
- Developments in Waste Management;
- ONR Update
- Submarine Dismantling Project;
- SCCORS Update; and
- Appointment to the Board of SEPA.

## **Recommendation:**

This report is for noting.

### **1. Reports from Theme Overview Group meetings (TOG)**

1.1 NuLeAF's Director attended **Site Decommissioning and Remediation (SDR) Theme Overview Group (TOG)** meetings held on the 11<sup>th</sup> October and the 10<sup>th</sup> December. Another SDR TOG was held on the 13<sup>th</sup> November, which was attended by Steve Smith of Copeland Borough Council. NuLeAF is grateful to Steve for this.

The **October meeting** heard updates on progress with items also covered in other meetings over this period, namely Strategy 4 (see section 3) and on the planned White Paper on Nuclear Decommissioning and Radioactive Substances Policy (4.1).

The **November TOG** also heard a presentation from BEIS on the continued development/review of the Government's Policy. The meeting also received updates on Stores Guidance, on Interim Storage of Higher Activity Waste

Packages, and on Mixing and Blending of wastes. On Stores Guidance, Regulators have identified a requirement to provide additional guidance on storage of interim products, in particular wastes recovered from the High Hazard Facilities at Sellafield and placed in interim packaging ahead of finishing/re-packaging ahead of GDF disposal. A revised draft of Guidance will be published early in 2020.

The December meeting included presentations and discussion on:

**Sellafield Site End State** The original vision for Sellafield was for an outer zone that would be available to be released for other uses and an inner zone with residual nuclear materials. However, NDA believe that a new approach is required, recognising the complexity of the site and the fact that it will not be possible to return Sellafield to its pre-nuclear state.

NDA Strategy 4 will therefore set out current thinking around issues such as the extent to which radioactive materials should be managed on site rather than be moved elsewhere. Impacts on hydrology are another major challenge, given that groundwater contamination extends below the water table. Any action taken must avoid creating further problems through disturbance.

Based on conversations with the West Cumbria SSG it is believed that external stakeholders are most interested in engagement on future employment, the wider socio-economic outcomes and social value. NDA land holdings extend beyond the Sellafield site itself and there is a lot of interest in the best use of this resource, maximising the benefit of this land in terms of economics or environmental impacts e.g. planting trees to offset carbon.

Strategy 4 will say more about how things are delivered in terms of site end states for all NDA sites including Sellafield but there will be caveats to plans and the sequencing of actions is still to be agreed.

**Sustainability** At the international level, the IAEA, as a UN body, has accepted the Sustainable Development (SD) Goals and have identified the SD goals most relevant for the nuclear sector<sup>1</sup>. The Forum for Stakeholder Confidence of the Nuclear Energy Agency (NEA) is also planning a workshop on sustainability in 2020.

NDA has appointed a sustainability manager and targets, and reporting are on development. It is accepted that any NDA approach on sustainable development much be based on a conversation with communities on their vision for sites and must adopt a balanced approach to economic, social and environmental issues with a focus on Social Value (human and natural capital and intergenerational equity).

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<sup>1</sup> <https://www.iaea.org/about/overview/sustainable-development-goals>

1.2 **Critical Enablers (CE) TOGs** were held in Carlisle on the 27<sup>th</sup> September, 29<sup>th</sup> October and 5<sup>th</sup> December. The CE TOG has been reinstated to support the Strategy 4 development process. There is therefore an overlap with the agendas at the Strategy 4 Development Group (S4DG) and with the IWM and SDR TOGs. In addition to the discussions reported in other sections of this paper, the three CE TOG meetings discussed the strategic aims of NDA on:

**Public and Stakeholder Engagement** Key areas for action include the development of a clear corporate narrative for the NDA Group, better understanding by stakeholders of the NDA mission, an approach to engagement more tailored to the needs and interests of different stakeholders and better co-ordination of stakeholder activities across the whole NDA.

**People** – The aim of the People Strategy is that NDA attracts a highly skilled and motivated workforce and develops a positive work culture. Important areas for action include enhancing diversity in the workforce, developing an early careers strategy to support apprenticeships and graduate recruitment and succession planning. There is also a commitment to improve relationships with the Trade Unions and other stakeholders. Jacq Longrigg, NDA's Head of Capability and Capacity, will be attending the March 2020 Steering Group to give an update on this work.

## 2. NDA Update

2.1 The NDA has launched its **Radioactive Waste Strategy**<sup>2</sup>. The Strategy applies to all radioactive wastes generated in the NDA estate and replaces the NDA Higher Activity Waste Strategy. It is also consistent with, but does not replace, the UK Low Level Waste Strategy.

The objective of this strategy is to provide an integrated and flexible approach to the management of all types of radioactive waste, treating waste based on its radiological, physical and chemical properties rather than its classification. It may therefore result in Intermediate Level Waste (ILW) being managed in ways previously only applied to LLW, and also supports new techniques such as in-situ disposal. It covers all stages of waste management from planning and preparation to disposal and seeks to embed all decisions within the waste hierarchy.

2.2 NuLeAF's secretariat has been given sight of a draft of the NDA Socio-economic Strategy, now renamed the **Local economic and social impact Strategy 2020-26** and has fed back comments. It is understood that the NDA is now planning a formal public consultation on the draft Strategy in spring 2020. NuLeAF will update members on plans for this when confirmed

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[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/831727/Radioactive\\_Waste\\_Management\\_Strategy\\_September\\_2019.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/831727/Radioactive_Waste_Management_Strategy_September_2019.pdf)

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and will be preparing a response which will be circulated to members for comment.

NuLeAF has now published a final **Policy Statement on Socio-economics**<sup>3</sup>. This draws on discussion at NuLeAF meetings and other events organised jointly with NDA.

2.3 The last nuclear fuel has been removed from Wylfa and from Calder Hall, on the Sellafield site. This is a significant milestone, meaning that all the UK's Magnox reactors have been defueled. Removing the fuel from a site is one of the main pieces of hazard reduction and reduces radioactivity by 99%. It also means that all Magnox sites are now wholly focussed on decommissioning and clean up.

It has also been announced that work on Dounreay's waste shaft is to restart. The 70metre deep unlined shaft was used between the 1950s and 1970s to dump waste this being brought to an end by a chemical explosion in 1977. Initial work took place over a decade ago to seal the shaft from the surrounding rock, but progress was halted when it was decided to prioritise action on the reactor fuel stockpile. The new work is part of a £400 million decommissioning programme at the Caithness site.

2.4 NuLeAF's Executive Director addressed the NDA's Integrated Waste Management conference held at the Rheged Centre in Penrith on the 7<sup>th</sup> to 9<sup>th</sup> October. The conference is the main annual event on IWM and heard presentations from Government, the industry and supply chain. Phil spoke about the role of local government as a regulator and partner in radioactive waste management.

### **3. Strategy 4 Update**

3.1 The NDA has begun the process of preparing **Strategy 4**, its high-level Strategy that will guide the organisation from April 2021. A revised Strategy is required every 5 years under the Energy Act 2004 and a **Strategy 4 Development Group (S4DG)** has been established, comprising Government, regulators and NuLeAF. The Group will meet regularly over the next year, and NuLeAF's Executive Director attended meetings on 12<sup>th</sup> September, 10<sup>th</sup> October and 17<sup>th</sup> December.

At the **12<sup>th</sup> September meeting** the group discussed how the new Strategy will underpin work underway to create closer working across OneNDA, and also reviewed plans for an Integrated Impact Assessment/Strategic Environmental Assessment of the draft Strategy.

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<sup>3</sup> <http://www.nuleaf.org.uk/wp-content/uploads/2019/08/NuLeAF-Policy-Statement-Socio-economicsfinal.pdf>

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The **10<sup>th</sup> October meeting** included agenda items on the context for the new Strategy, Stakeholder Engagement, the Risk register and proposals for Spent Fuel management.

The meeting heard a presentation on the NDA's approach to Spent Fuel (SF) management. Recent developments include the closure of THORP in 2018, the completion of Magnox reactor defueling in 2019 and the consolidation of irradiated fuel from Dounreay at Sellafield. Magnox fuel reprocessing is expected to be completed by the end of next year, and with reprocessing due to cease before Strategy 4 is launched in 2021, it is proposed that the approach should be to consolidate and store SF at Sellafield. Pending a decision, yet to be taken, to declare SF as waste the material would be disposed of in a Geological Disposal Facility (GDF).

A significant part of the **17<sup>th</sup> December meeting** was devoted to discussion of the Nuclear Materials Strategy, covering Plutonium and Uranics. The NDA manages large stocks of civil uranium and plutonium arising from nuclear fuel cycle activities such as reprocessing and enrichment. These materials are diverse in nature and properties.

Plutonium production by the NDA will come to an end with the cessation of Magnox reprocessing this year. The focus for the NDA is therefore on consolidation of all material at Sellafield and its safe management pending a decision on its disposal. Priorities include the development of a repackaging plant, given the need to address the degradation of some packages. This is due to open in 2027.

The NDA owns around 54,000 tonnes of uranic material, over 95% of which is at Capenhurst. The NDA has committed to continued work with organisations operating in the nuclear fuel cycle to identify opportunities for recycling and reuse, and to work with RWM to underpin long-term disposal options for uranics that cannot be reused.

The December meeting also explored Safeguards, International Relations and the People Strategy.

#### **4. BEIS update**

4.1 NuLeAF's Director attended a meeting of the **Radioactive Substances Policy Group (RSPG)** in London on the 19<sup>th</sup> September.

The Group heard updates from BEIS including current thinking on the implications of Brexit for the department and the role of nuclear with regard to the Energy White Paper's aspiration for net zero carbon by 2050.

A significant part of the meeting was devoted to discussion of the planned **Nuclear Decommissioning and Radioactive Substances White Paper** and associated Policy. The White Paper will update policy given the significant changes in the landscape for decommissioning, the Nuclear Sector Deal and the growing devolved dimension to UK governance. It will cover not just the NDA estate but all decommissioning and waste arisings including from EDF stations, new nuclear and other sectors such as oil and gas.

A draft outline of the Paper was presented to the group. It is proposed that the document will establish objectives for decommissioning and then set out policy on a range of areas including:

- Future policies for decommissioning
- The risk-based approach to radioactive waste management, storage of wastes and the management of non-nuclear wastes such as NORM
- The management of other radioactive wastes including liquid discharges, spent fuel, uranics and plutonium
- Infrastructure requirements including GDF policy, the scope for near surface disposal, the management of LLW and the transport of wastes
- Future innovations including transmutation and the options for management of graphite

In discussion NuLeAF's Director highlighted the lack of reference in the document outline to socio-economics, engagement or the 'social license to operate', even though these were acknowledged by Government and NDA as vital to the delivery of the NDA mission. NuLeAF will continue to press on these points in relevant meetings and through consultations. Keith Duncan of BEIS will provide an update to the Steering Group on plans for the White Paper.

4.2 It has been announced that BEIS is working with EDF Energy and the NDA to consider how efficient and cost-effective decommissioning of EDF's nuclear stations can be planned for and delivered. This work will look at how the stations will be owned and managed in future, and the oversight of the Nuclear Liabilities Fund, established to support decommissioning of the EDF fleet. It is expected that this work will conclude in summer 2020, and NuLeAF will host a discussion with the Government and EDF once the results are clear.

## **5. Developments in waste management**

5.1 Somerset County Council has rejected proposals from Magnox to transport a total of 46 deliveries of ILW from the Oldbury, Sizewell and Dungeness sites for long term storage. Council officers recommended acceptance of the wastes, but County Councillors unanimously voted against the proposal. A spokesman for Magnox said that the organisation was considering its next steps and that *'we will continue to talk to our stakeholders and they will be kept informed of our plans.'*

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5.2 Augean North Ltd have submitted an application to the Environment Agency<sup>4</sup> to dispose of Low-Level Radioactive Waste (LLW) at their Port Clarence landfill site near Stockton in the Tees Valley. The waste that Augean wishes to dispose of is largely from North Sea oil and gas operations. There have been significant local objections to the proposal, including from the Tees Valley Mayor and by the local MP in Parliament. Augean is the operator of the Kings Cliffe landfill site in Northamptonshire which already accepts LLW.

5.3 Tradebe Inutec has received planning permission from Dorset County Council for a new facility on its Winfrith site in the UK, which will enable the company to further increase flexibility in processing low-level radioactive waste and borderline intermediate-level waste. The hazardous waste management company became a nuclear site licensee in early 2019.

## **6. ONR Update**

6.1 The Office for Nuclear Regulation (ONR) has launched a consultation on its draft 2025 Strategy<sup>5</sup>. NuLeAF will prepare a response and circulate this to members for comment. The consultation closes on the 11<sup>th</sup> February 2020.

6.2 It was announced on the 13<sup>th</sup> December that ONR had delicensed a nuclear site in Cardiff owned and operated by GE Healthcare. This is the first time that ONR has de-licensed a site completely, although several sites were de-licensed by ONR's predecessor, the Nuclear Installations Inspectorate. It follows many years of decommissioning and clean up.

## **7. Submarine Dismantling Project**

NuLeAF's Director, accompanied by Sean Morris of the Nuclear Free Local Authorities (NFLA), met with Ian Booth, the Chief Executive of the Submarine Dismantling Authority (SDA) in London on the 14<sup>th</sup> January. This meeting was offered in response to concerns raised by NuLeAF regarding the lack of progress with the Submarine Dismantling Project (SDP) and poor engagement with local government and communities in the ongoing work on submarine decommissioning. These views were shared and discussed with Mr Booth, and it is hoped that engagement will be improved in future.

## **8. SCCORS Update**

NuLeAF participated in the meeting of SCCORS held in Glasgow on the 7<sup>th</sup> November. The main agenda item was a presentation from John McNamara of the NDA on stakeholder engagement in Scotland. John spoke of plans for the 2020 NDA Stakeholder Summit to be held in Edinburgh this autumn, and for a reception in the Scottish Parliament as part of that meeting.

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<sup>4</sup> <https://consult.environment-agency.gov.uk/north-east/port-clarence-landfill-permit-application/>

<sup>5</sup> <http://news.onr.org.uk/2020/01/onr-2025-strategy-have-your-say/>

## **9. Appointment to the Board of SEPA**

NuLeAF's Executive Director has been appointed to the Board of the Scottish Environmental Protection Agency (SEPA). This is a public appointment for a fixed term, with a requirement of around 1 to 2 days work per month. The Director has agreed to fulfil all commitments in his own time using TOIL and annual leave. Suffolk County Council has approved it as a useful career development opportunity.