

NDA Monthly Update

November 2018

Summary

- Wylfa defueling reaches 75%
- Exhibition celebrates role of Sellafield's THORP
- Milestone for graduate training scheme
- Clean-up milestone at Hunterston A
- Applications invited for PhD bursaries
- Iconic Sellafield chimney set to disappear
- Self-shielded Sellafield boxes in the pipeline
- Collaborative research transcends individual approach
- Global perspective on radioactive waste
- Views sought on radioactive waste strategy
- Deep dive to remove Sizewell waste

Diary Dates 2018

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| • Anti-bullying week | 13-17 November |
| • End of reprocessing at THORP | November |
| • Bradwell to enter Care and Maintenance phase | November |

Wylfa defuelling almost there

Three-quarters of the used nuclear fuel has now been emptied from Wylfa's twin reactors and transported to Sellafield for reprocessing. At the start of defuelling, the reactors contained almost 90,000 fuel elements and 33,800 are now left. Once the reactors are empty, and all the fuel elements have been dispatched to Sellafield, over 99 per cent of the site's radiological hazard will have been removed.

[Weblink: Wylfa reactors 75% defuelled](#)

Exhibition marks THORP's contribution

An exhibition at Whitehaven's Beacon Museum will mark the end of nuclear fuel reprocessing at Sellafield's Thermal Oxide Reprocessing Plant (THORP), expected during November. The *Art of Reprocessing* will open on 16 November to celebrate the plant's contribution to the global nuclear industry. THORP, which began operations in 1994, was one of the largest construction projects of its day, ranking alongside the Channel Tunnel and Disneyland Paris in sheer scale and ambition. Its switch-off is a key step in the transformation of Sellafield Ltd from nuclear operator to environmental restoration business.

[Weblink: Exhibition celebrates THORP contribution](#)

Graduate training scheme milestone

The NDA has celebrated 10 years of its *nuclear graduates* scheme. The milestone was marked at a celebratory dinner where NDA Chief Executive David Peattie pledged a renewed boost to the scheme over the next 10 years in a bid to help futureproof and diversify the UK's nuclear workforce. It will see the NDA invest around £15 million in total skills over the next 10 years. To date, 344 graduates have completed the programme.

[Weblink: Graduate training scheme celebrates 10th anniversary](#)

Apprenticeship boost for Cumbria

Sellafield Ltd will fund 50 new apprenticeships a year for small companies in Cumbria. The new 'North West Nuclear Community Apprenticeship Programme' will boost employment opportunities for local people, and help drive economic growth in the region. The courses will range from customer services, property maintenance and scaffolding to more diverse professions like logistics and horticulture. Developed by Sellafield Ltd, the programme will be delivered and managed by the Cumbria Apprentice Training Agency (CATA), who will work with the employers, employment agencies and a range of local training providers. It is supported by the NDA, Nuclear Skills Strategy Group (NSSG), Cumbria Local Enterprise Partnership (LEP) and the Britain's Energy Coast Business Cluster (BECBC).

[Weblink: Training boost for region:](#)

Clean-up milestone reached at Hunterston A

One million gallons of water have now been drained from Hunterston A's spent fuel pond, and over 10 tonnes of redundant equipment removed. The project has overcome several unique challenges including the removal of radioactive sludge and fixed equipment on the floor of the pond, the largest in the Magnox fleet. Innovative approaches included using ultra-high pressure water jetting and 'concrete shaving' on the surfaces.

[Weblink: Pond clean-up reaches milestone](#)

Apply for PhD bursaries

The NDA is seeking applications for PhD research proposals related to nuclear decommissioning. Up to £500,000 is available in total to support projects that will lead to the award of a PhD. The NDA's goals for the scheme are as follows: maintain and develop the key technical skills that will be required to help us carry out the mission over the coming decades; provide fundamental understanding of technologies and processes across the NDA estate; develop early-stage technologies (Technology Readiness Level 1 to 3); and encourage two-way knowledge transfer between the academic and industrial communities working on nuclear decommissioning.

[Weblink: Applications for bursary scheme now open](#)

Iconic chimney set to disappear

The tallest structure ever built at Sellafield, a crane, is due to begin dismantling the remaining chimney at the scene of Britain's worst nuclear accident. Chunks of the Windscale Pile chimney, cut out with diamond wire saws, will be removed and the structure gradually lowered. The crane installed to carry out the work is, at 152 metres high, just six metres shorter than Blackpool Tower. Sellafield's skyline has been dominated for almost 70 years by the Windscale Pile Chimney. Famously, its filtration system was a last-minute addition placed at its summit. Despite being mockingly referred to as 'Cockroft's Folly' after its designer Sir John Cockroft, it turned out to be a masterstroke: When fire broke out in 1957, the filters captured an estimated 95 per cent of the radioactive dust created.

[Weblink: giant crane set to make history](#)

Collaborative research TRANSCENDS individual approach

A £9.4 million research programme will link experts from the nuclear industry with UK academics and PhD students to wrestle with some of the challenges in dealing with radioactive waste. The research will span 40 projects lasting up to four years each, helping to build the next generation of nuclear experts as well as developing technical solutions. Building on £4.6 million grant from the Engineering & Physical Sciences Research Council (EPSRC), AWE, Cavendish Nuclear, Low Level Waste Repository Ltd,

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National Nuclear Laboratory, Radioactive Waste Management Ltd, Sellafield Ltd and TUV SUD Nuclear Technologies are all supporting the programme through direct funding and/or supervisory expertise, use of facilities and researcher training.

[Weblink: New research programme under way](#)

Self-shielded boxes in the northern pipeline

A chain of northern companies has begun manufacturing containers to store radioactive waste from one of the UK's most important nuclear decommissioning projects. Businesses in West Yorkshire, Lancashire, and Cumbria are joining forces to produce self-shielded boxes which will store waste from the First Generation Magnox Storage Pond at Sellafield. The 66-year old open air pond was originally used to store nuclear fuel from the UK's earliest nuclear power stations and is a clean-up priority for the NDA. The clean-up work requires hundreds of boxes to store material from the facility.

[Weblink: Northern businesses power Sellafield](#)

A global perspective on radioactive waste

NDA Inventory Manager James Martin outlines how international nuclear agencies are working together to report, for the first time, on global trends in how radioactive waste and spent fuels are managed. Although the UK updates its own comprehensive inventory every three years, until recently, there has been no authoritative publication that systematically and periodically summarises the global position.

[Weblink: Global report on developments in radioactive waste management](#)

Views sought on strategy for all radioactive waste

Views are sought on the NDA's radioactive waste strategy for the NDA Group, published in July following a commitment in 2016 to develop a single strategy that will apply to all radioactive waste generated within the NDA Group, including materials that may become waste at some point in the future. The deadline is 31 October.

[Weblink: Strategy on radioactive waste management](#)

Diving deep to remove pond waste

Specialist divers from the US have completed their mission to haul radioactive waste out of Sizewell A's nuclear fuel storage ponds nearly two months early. The underwater experts cut up old fuel storage skips and other redundant equipment as part of work to dismantle the site. The divers, who tackled their first UK 'nuclear dive' at Dungeness A in 2016, wear full protective suits and are shielded from radiation by the pond water. I

[Weblink: Divers complete pond mission](#)