Sellafield

Issue 01
August 2015

Sellafield is changing

Building a new management model for the Sellafield site

The BBC looks inside Sellafield

Nuclear physicist Jim Al-Khalili uncovers the story of Sellafield for a BBC documentary

Meet our nuclear **robots**

Sellafield Ltd

Market enhancement
How will the private sector support Sellafield Ltd?

Albion square one year on
Sellafield Ltd employees and local businesses reflect on the last year

Women in Nuclear
Why are only 13% of workers in STEM industries female?

Sellafield Ltd

Key to Britain's energy future

Building certainty and a positive legacy

Sellafield has been 74 years in the making. A pioneer for the UK's nuclear industry, it supported national defence, generated electricity for nearly half a century, and developed the ability to safely manage nuclear waste.

Each chapter of Sellafield's history delivered great benefit for the country while creating a complex nuclear clean-up challenge for which there are no blueprints.

Decommissioning the site will take us more than 100 years and there is much that we still don't know. Every day we are building greater certainty and we will be the generation that makes demonstrable progress in cleaning up Sellafield.

That will be our legacy.

Find out more:
www.sellafieldsites.com/press/the-strategy-for-sellafield

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West Cumbria Works launch page 68

Few places are as recognisable yet as misunderstood as Sellafield. People know the name and can associate it with the nuclear industry, but few can explain what we do or how we do it. Many people think that we still generate nuclear power (untrue, the Calder Hall power station closed in 2003) or that the site makes material for nuclear weapons (also untrue, although that is how the site started its life in the 1940s).

Much work has been done to try to open our gates (metaphorically) and to show the pioneering work that happens every day at the nuclear industry's most complex nuclear site.

Cover star Professor Jim Al-Kalili and a production crew explored the Sellafield site for themselves in the spring, gaining unparalleled access to our facilities and workforce. The result was a fascinating documentary broadcast by the BBC earlier this month. If you have ever wondered how much time and effort goes into making one hour of prime time television, go behind the scenes of the documentary on page 60.

While Jim explored Sellafield's past, we also want to take you inside Sellafield's current and future challenges and successes.

From 1 April 2016 our performance against those challenges will be delivered through a new management model for the site, as the Nuclear Decommissioning Authority take ownership of Sellafield Ltd. We sat down with the men in charge of the transition to talk about the need for change and the work to be done before the end of the year (page 10).

Elsewhere in this first issue we explore the role of women in nuclear; how robots are as much a part of our team as our workforce; and take you inside of one of our most hazardous buildings – the Magnox Swarf Storage Silos. ■

If you can't wait for the next issue in November there are many ways to keep up to date with what is happening at Sellafield:

Visit **www.sellafieldsites.com** to learn more about Sellafield, our mission and progress, register for our newsletter at **www.sellafieldsites.com/newsletter-registration/** or follow us on Twitter **@SellafieldLtd**

Nominate your local hero

"Sellafield Ltd is delighted once again to be sponsoring the West Cumbria Community Heroes Awards. We are immensely proud to be based in such an incredibly close-knit, compassionate and caring community and we like to think we play a positive part in daily life here. This is the opportunity for the unsung heroes of our community to get their moment in the spotlight and I would urge everyone to nominate those stars of west Cumbria so we can help celebrate their invaluable contribution." Rory O'Neill, Sellafield Ltd's Director of Stakeholder Relations

www.whitehavennews.co.uk/heroes

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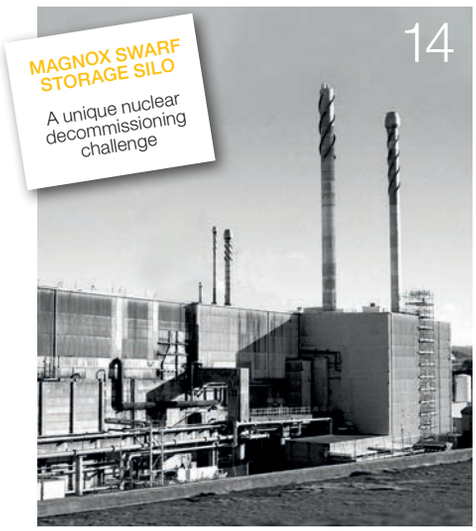

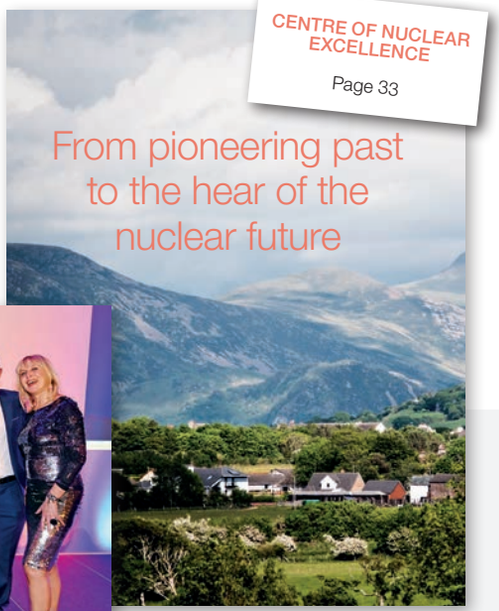

INTRODUCING OUR NEW RECRUITS

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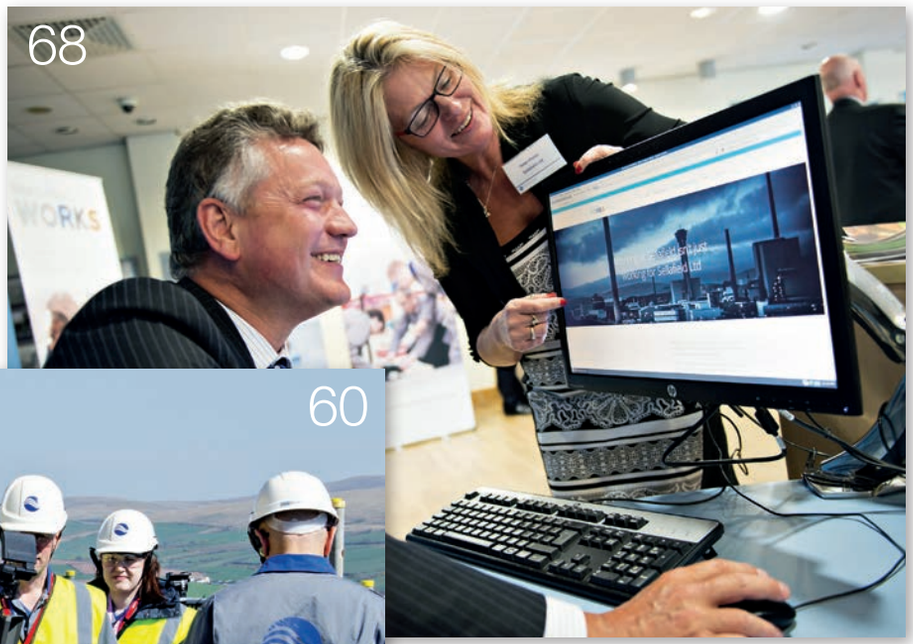
"Nuclear robots join our team"



BEHIND THE SCENES: INSIDE SELLAFIELD

"I have always been fascinated by Sellafield"
Professor Jim Al-Khalili

WHAT IS…

Sellafield?

For the 10,000 people who pass through its gates every day, Sellafield is their job, a factory like any other – albeit with a higher than usual emphasis on safety and security. But for the rest of the UK's population, it's a mysterious relic containing a frightening legacy.

Changing the way people think about the site is no easy task. For a start, the vast majority of people still think that Sellafield is a nuclear power plant, when electricity production ceased over a decade ago. You might think that the lack of any cooling towers – they were spectacularly demolished in 2007 – might give people a clue.

Of course, the name Sellafield remains inextricably linked to nuclear issues because of the work that is done on-site – emptying and decommissioning our ageing facilities and reprocessing nuclear fuel from elsewhere.

Perhaps we don't help ourselves with the language we use – out of necessity we have to talk about our plans for the site in terms of hazardous waste, complex problems and 50 year old buildings.

Yes, a lot of what Sellafield is about is based in the past – a problematic legacy that no-one who works there asked to have, but that must be dealt with. It is these very issues that drive Sellafield forward.

Teams on site and in its satellite offices across Cumbria and in Warrington are constantly innovating, coming up with exciting new ways to achieve work which has never been done before. They are designing, building and using equipment which the rest of the world wants to use. Whether those innovations are huge multi-million pound facilities designed to suck in radioactive sludge and make it safe, or tiny remote-controlled submarines which can explore places people can't reach, this work is always fascinating.

Due to its need to bring in new talent, the company has become one of the top graduate employers in the country. In the last few years the company has more than doubled its graduate intake.

And the work being done on-site to reprocess spent nuclear fuel in our Magnox and Thorp plants means it can be used again to keep reactors going across the country.

But the biggest work we are doing could be around changing people's perceptions. Eva Watson-Graham is Visits Manager. It's her team's job to educate and inform visitors to the site.

Her team deal with more than 300 visits a year, guiding 2,000 people around Sellafield – all of whom come with their own

Sited in a hidden part of the country, shielded from most of the population by the towering mountains of the Lake District, Sellafield is an enigma.

preconceptions. Many are UK government officials, wanting to see how public money is being spent. Others are from abroad – particularly Japan and China – to see the sites unrivalled knowledge of nuclear decommissioning.

Eva said: "It's important that they see the site for themselves. They understand what we are working towards, but not the conditions we are working under."

"They often can't believe how congested and interconnected the site is – in the US, for example, a nuclear site like Sellafield might be spread over an area the size of Cumbria."

Carol Parkinson is a Training Manager for Sellafield Ltd and is responsible for the induction process which brings new staff on-site. The induction programme is currently being redesigned from scratch, to better inform new staff about the changes the company faces and explain the part they can play in the successful delivery of the Sellafield Ltd strategy.

Carol said: "We tend to find that people come to us with a number of preconceptions – they think Sellafield has an endless pot of money to spend, they think it's one big building with one plant inside, they've heard tales of how people who work here 'glow in the dark'. Some of them are scared to enter the site. People's knowledge of what goes on in Sellafield is extremely limited, and it's our job to change that.

"We are altering the focus of our induction, so instead of looking back at our history it looks forward. We want our new staff to understand that they are the generation that is going to make the big changes to the site."

As time goes on, Sellafield's contribution to the West Cumbrian skyline will change dramatically– several of its huge chimneys have already followed the cooling towers into history, and the surviving Windscale Pile Chimney is in the process of being demolished right now.

In a century's time, when we have finally completed our mission, there will be nothing left of Sellafield apart from a few old photographs. This is clearly the right thing to do. Even when the mission is complete Sellafield should always be recognised as an iconic pioneering and groundbreaking site of huge national importance. ■

Since April we have been...

USING...

mini submarines to recover medical isotopes dating back to the 1950s, from Sellafield's oldest storage ponds

CELEBRATING...

as one of our electrical and instrumentation apprentices, Emma Hanley, was crowned National Apprentice of the Year

WINNING...

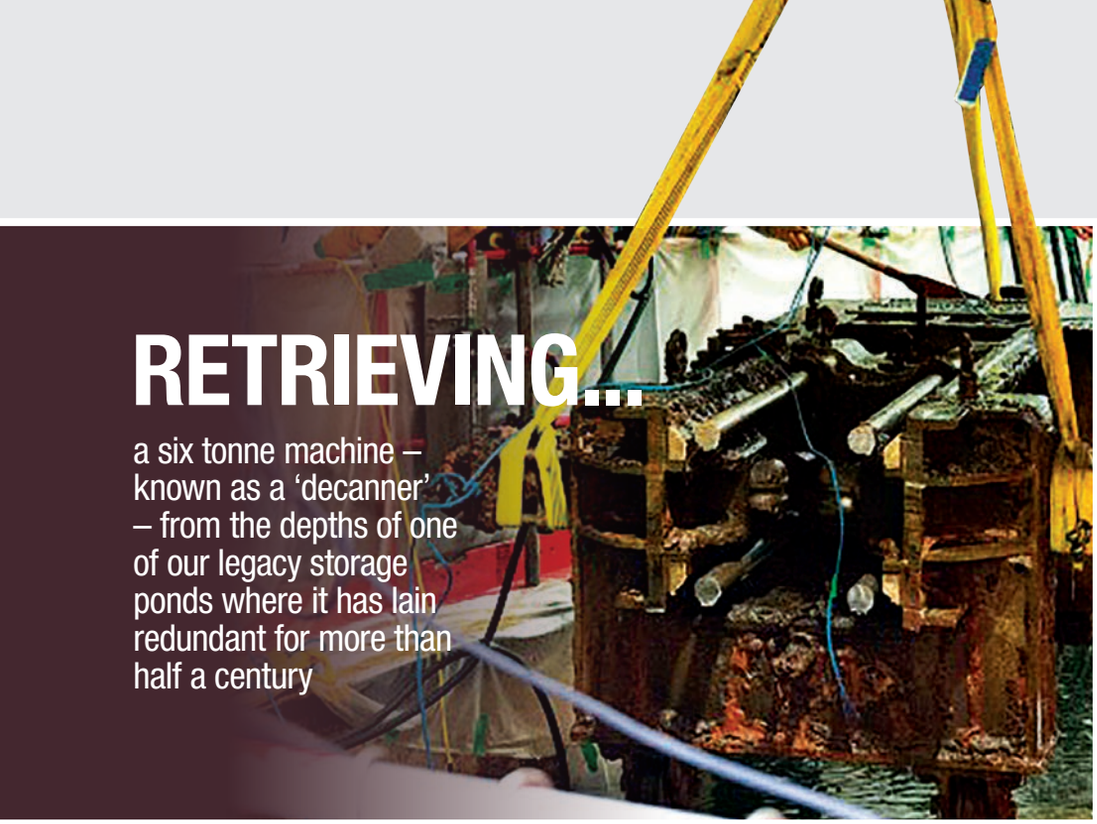
eight prestigious RoSPA Occupational Health and Safety 2015 awards

HONOURING...

one of our employees, Mike Renouf, who is set to receive a prestigious honorary fellowship from the Society of Radiological Protection

FILMING...

a Sellafield documentary with the BBC to be broadcast on BBC4 on 10 August



RETRIEVING...

a six tonne machine – known as a 'decanner' – from the depths of one of our legacy storage ponds where it has lain redundant for more than half a century

DELIGHTED...

to be in great company when we were named as one of the best graduate employers in the country. We ranked eighth in the Job Crowd 'Top 100 Graduate Employers' list ahead of many major companies like Jaguar Land Rover, Sky, Virgin Media, Nestle and Sainsbury's

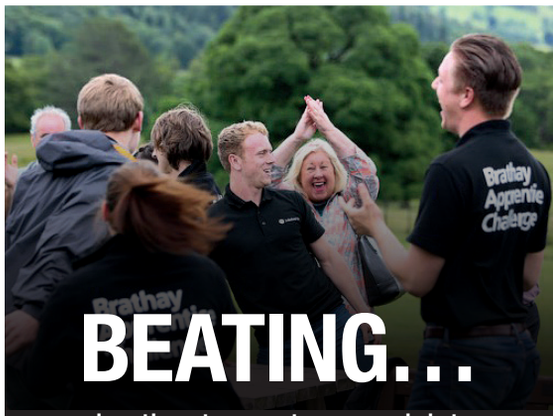
COLLECTING...

vital supplies for the North Lakes Foodbank

AWARDING A...

£5m

contract to Metalcraft to provide high-integrity stainless steel storage containers for nuclear waste that will be retrieved from our oldest buildings



BEATING...

six other teams to come joint first in the national Brathay Apprentice Challenge

TRANSPORTING...

the first of our new Silo Emptying Plant equipment from Wolverhampton to Sellafield. The equipment will be used to empty one of our legacy silos and will arrive in 33 separate deliveries

LAUNCHING...

West Cumbria Works, an employment brokerage to help local people make the most of career opportunities in the nuclear industry

SIGNING...

a new contract with Tata Steel – worth £20 million – to provide packages and gamma gates at Sellafield

The arrangements for managing Europe's most complex nuclear site are changing

A NEW MODEL IS BEING CREATED TO GIVE SELLAFIELD LTD MAXIMUM OPPORTUNITY FOR ACHIEVING IMPROVED PERFORMANCE AND DELIVERING VALUE FOR MONEY

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Sellafield
Model Change Programme

Background Information:

In January 2015 the Government announced a change to management arrangements for Sellafield Ltd.

The decision followed a comprehensive review by the NDA which concluded that whilst the model is still appropriate for some of its other sites it is no longer suitable for Sellafield, whose clean-up mission is the most complex of any across the NDA estate.

From April 2016 the Parent Body Organisation (PBO) model and temporary ownership of Sellafield Ltd by the private sector; currently held by Nuclear Management Partners (NMP) will end.

Sellafield Ltd will acquire support from the market, including a strategic partners or partners, to help drive performance improvement.

Under the new model Sellafield Ltd will become a subsidiary of the Nuclear Decommissioning Authority (NDA), rather than being owned by a private sector 'parent'.

The plan to clean up Sellafield extends beyond 2120 meaning that the timescales for the delivery of key outcomes are in many cases decades away and the sums of money involved are much greater than those on other sites.

The NDA, which already owns the site, will also become the owner of Sellafield Ltd.

The Sellafield Model Change Programme, set up to facilitate the change to the new arrangements, is well under way.

Changes at a glance – what will be different:

- From 1 April 2016 Sellafield Ltd will become a wholly owned subsidiary of the NDA.
- As Sellafield Ltd will no longer be privately-owned, a more appropriate interface between the public and private sector will be created.
- Sellafield Ltd will acquire support at a strategic level, creating a market-enhanced Site Licence Company, to achieve the best balance of internal and external capability and expertise.
- Sellafield Ltd's executive team will be made up almost exclusively of people employed by Sellafield Ltd.
- The NDA's socio-economic commitments will be managed directly by Sellafield Ltd.

Transition timeline

March – June 15
Phase 1:
Initial shaping of the new management model

Includes soft market engagement with supply chain

July – Sep 15
Phase 2:
Testing the new management model

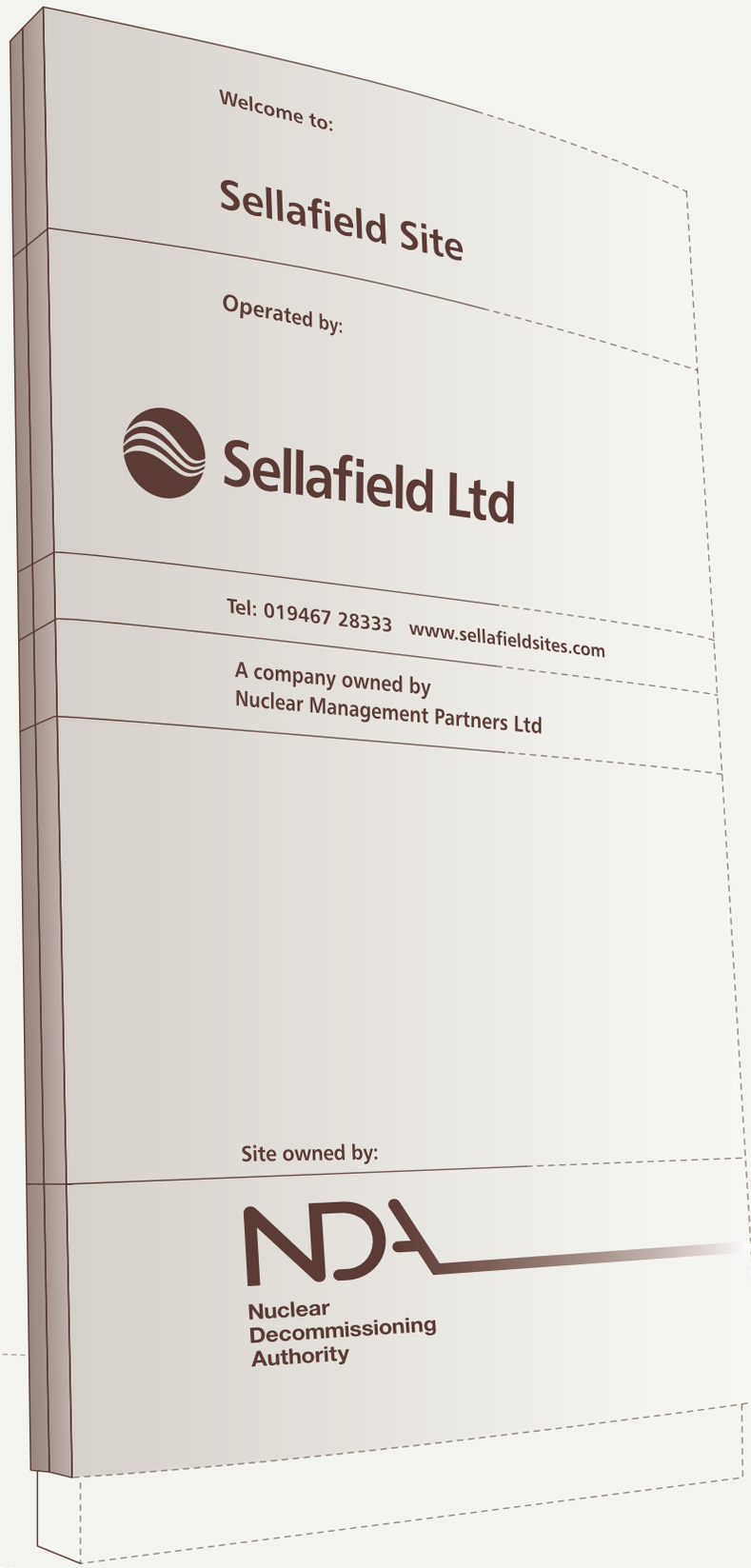
Includes formal engagement with supply chain to begin procurement of strategic partner (or partners)

Oct – Dec 15
Phase 3:
Defining the new management model

Jan 16 – March 16
Phase 4:
Communication of new model and preparation for share transfer

1 April 2016 and beyond
Phase 5:
Completion of share transfer, implementation of new management model

In April 2016 the ownership of Sellafield Ltd, the company responsible for the safe management and operation of the Sellafield site, will transfer from Nuclear Management Partners to the Nuclear Decommissioning Authority.



We catch up with George Beveridge, Sellafield Ltd's Deputy Managing Director, Pete Lutwyche, the NDA's Sellafield Programme Director, and Iain Irving, NMP General Manager, to find out what this means…

George Beveridge is clear that this is about doing the right thing for Sellafield Ltd: "We face major challenges and complexities in cleaning up some of the world's oldest nuclear facilities and it involves enormous amounts of money.

"This means that there is continual scrutiny on the progress we're making and the value we're providing to the UK tax payer. Some good progress has been made on the site in recent years, but there is a demand on us to accelerate the pace. The mission at Sellafield is difficult and we will continue to face uncertainty but we share the desires of the NDA and our stakeholders for improved performance."

> "There is continual scrutiny on the progress we're making and the value we're providing to the UK tax payer."

Work to bring about the change in ownership is being led by the NDA and Sellafield Ltd, and supported by Nuclear Management Partners (NMP).

Pete Lutwyche explains that when it comes to defining the new model, it's clearly a matter for Sellafield Ltd and the NDA, "but it's essential that all three organisations work together to make sure we have a safe, smooth handover period."

Iain Irving adds: "We may be parting company but we want to leave on good terms – we've put a lot

From left to right:
George Beveridge, Sellafield Ltd's Deputy Managing Director, Pete Lutwyche, the NDA's Sellafield Programme Director, and Iain Irving, NMP General Manager

of work into Sellafield Ltd over the last seven years and we are committed to helping with this transition."

The Sellafield Model Change Programme team is charged with developing the best possible model for managing the site in the future and determining the benefits it can deliver. Work is well under way to determine the new arrangements.

The overall intention is to create simpler management arrangements more suited to Sellafield's uncertainty and long term outcomes.

Pete explains: "We want to move away from a tight commercial contract and create arrangements that are more flexible and can better accommodate change, which is inevitable on a site like Sellafield. We want to ensure that the organisation has the right environment for success."

For George it means that the interfaces between NDA and Sellafield Ltd will be simpler, more effective and clearer: "This will help us to improve performance and create greater accountability and transparency and build the confidence of our stakeholders."

The change is also aimed at bringing about a more appropriate public-private sector interface and create the right levels of appetite for commercial risk.

Pete continues: "We have a chance to help Sellafield Ltd get things done better, quicker and ultimately more efficiently. This will be helped by engaging the supply chain at the right level."

Private sector expertise will continue to play a major part at the site and Sellafield Ltd will acquire support in order to become a market-enhanced (rather than market-owned) Site Licence Company (SLC).

The new model will see Sellafield Ltd continuing to develop a strong supply chain, which plays a vital role in the work we do. "Developing new management arrangements however, gives us a unique opportunity to determine the very best ways of working with the private sector," adds George.

> "We have achieved the company's best-ever levels of safety performance in the last two years and the workforce deserves praise for achieving and maintaining these exemplary records."

Over the last few months the Sellafield Ltd procurement team has undertaken a period of 'soft' market engagement to determine how the capability and capacity of Sellafield Ltd can best be enhanced through the deployment of private sector expertise. The team has gained valuable insight from organisations involved in existing collaborative arrangements in both the public and private sector. This together with the work to determine the strategic requirements of the SLC will help shape a procurement proposition and draft acquisition strategy. These will be tested with the supply chain later this year (see page 28).

The NDA is also confident that the new model will create better continuity of leadership for the site given that the executive team will almost exclusively be employed by Sellafield Ltd. The appointments will draw on the best from the organisation and from the wider market.

Despite the changes ahead, George is quick to point out that the job for Sellafield Ltd remains the same; its mission is to safely and securely manage the site, deliver decommissioning progress and return value to taxpayers on the investment. "We've achieved the company's best-ever levels of safety performance in the last two years and the workforce deserves praise for achieving and maintaining these exemplary records.

Our priority is to maintain this focus on safety through the transition period. It's non-negotiable that we have to keep ourselves, the public and the environment safe. If we don't, it makes it virtually impossible to do the rest. We've made major inroads in decommissioning – removing sludge from the First Generation Magnox Storage Pond was a great moment earlier this year, for example, and it's important that the new model creates an opportunity to build on this momentum and impressive level of performance.

Maintaining and building upon the improving trends is also important for NMP. The consortium of URS (now AECOM), Amec Foster Wheeler and Areva has held the parent body organisation contract for Sellafield Ltd since the current model's creation in 2008. The model was established by the NDA to help bring worldwide expertise and resources to the site, and has successfully supported the site's shift in focus from reprocessing to decommissioning.

Iain says: "We are proud of our tenure and of the workforce's achievements. Most importantly, I think, NMP has embedded the strong safety culture delivering record performance that George has mentioned, as well as overseeing the first retrievals in 50 years from the historic fuel ponds and the world's first fully decommissioned commercial-scale nuclear reactor. We've also provided more than £24m for the local community, working with organisations like Britain's Energy Coast to invest it in projects to help people and businesses in west Cumbria. Everyone wants Sellafield Ltd to be successful in its mission and we are proud to have been able to support its progress." ■

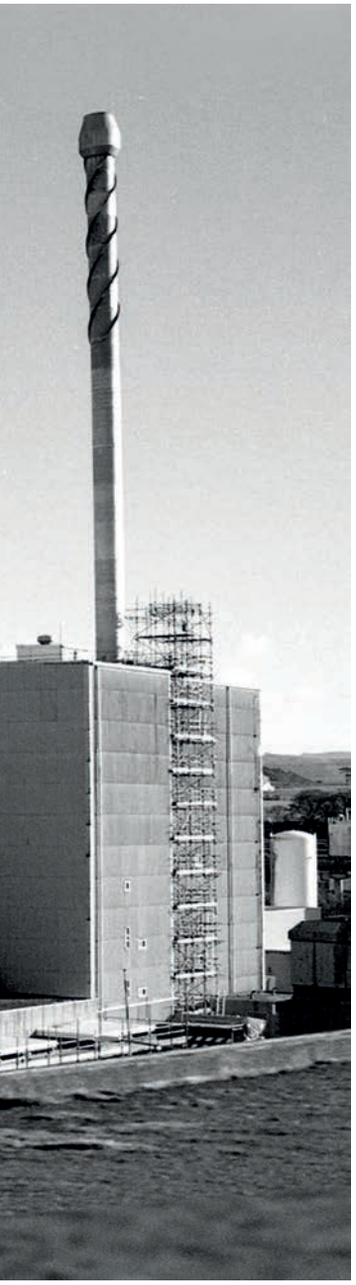
The Magnox Swarf Storage Silos building was constructed for the underwater storage of this so-called swarf waste which is the external cladding removed from Magnox nuclear fuel

Originally constructed in the 1960s, three further extensions were added in the 1970s and 1980s providing in total twenty two individual compartments within the silo

It received swarf from the First Generation Magnox Storage Pond and the Fuel Handling Plant, along with a range of other metal items of intermediate level waste

In 1992, swarf from the Fuel Handling Plant was then routed to the Magnox Encapsulation Plant where it was encapsulated into drums

The final waste was tipped into the silos in June 2000



IN FOCUS:

Magnox Swarf Storage Silo

Decommissioning a fifty-year-old radioactive waste store that's past its sell-by-date is not easy, especially when there are no instructions for the job. The store in question was built in the early 1960s to hold cladding removed from spent nuclear fuel arising from the UK's first generation Magnox power stations, to prepare it for reprocessing or recycling into new fuel.

The Magnox Swarf Storage Silo was originally actually built as a temporary store and became operational in 1964 however three further extensions built in the 1970s and 1980s providing in total twenty two individual compartments within the silo. The store is still going strong, although no one can pretend that it's been built to modern engineering standards.

Our priority is to empty the store of its estimated 10,000 cubic metres of nuclear waste as soon as possible. The man in charge of decommissioning the historic store – Chris Halliwell – is realistic about the size of the job he faces.

Chris explained "The job is unique – simple as that. Removing decaying radioactive waste from the 22 concrete silos that are some 16 metres deep is not easy. All sorts of wastes were disposed of into the silos, which included not just fuel cladding but an estimated 60,000 items of miscellaneous radioactive metal waste. It's hugely complicated and our workforce has had to come up with a way of doing the job safely in what is a challenging radioactive environment, with the constant build-up of hydrogen gas."

It's a wonder that Chris sleeps at night, as there are so many things that could go wrong! The store is old and wasn't designed with decommissioning in mind, so Chris's team has to come up with some clever engineering solutions to physically get the waste out of the silos. The waste was tipped into the compartments through individual shielded hatches on top of the 22 compartments via an air-locked machine which prevented any radioactive material escaping into the atmosphere. This machine has long since been decommissioned and it was only designed to tip waste not remove waste and that's been the big problem – how to get the waste back out of the silos.

An additional headache is the fact that the Magnox fuel cladding was predominantly made of magnesium. The nuclear gurus of the time decided to store this waste underwater to keep it cool and prevent any potential fires – you need to cast your mind back to school chemistry lessons here when strips of magnesium ribbon burned oh-so brightly and oh-so easily! However, although the magnesium fuel cladding cannot set on fire because of the water, it does chemically react with this same water to produce hydrogen gas. Back to school and you'll remember that hydrogen is a very light and very explosive gas, which is why the hydrogen gas in early Zeppelin flying machines was soon replaced with helium. Magnesium may have done a good job in the reactor but it's not without its problems and it is pretty clear why the UK's Magnox reactors – which were the nuclear workhorses of the time – never really took off internationally.

Routine waste tipping into the silo was stopped in 1992 when a new modern waste store was built to encapsulate the waste into individual drums, which are safe and secure for long term storage and even suitable for disposal into an underground store, should one be built. The decaying radioactive waste will be pulled out of the compartments and packaged into high-integrity boxes.

So Chris and his team of 500 engineers, operators, maintainers, project managers and technical experts have got quite a job on their hands as Chris explained: "Simply put we're concentrating on three work faces. We're working to safely manage the historic waste on a day to day basis whilst simultaneously treating the radioactive silo liquid in which the solid waste is stored to reduce the radioactivity. We're preparing for the physical installation of the solid waste retrievals equipment by decommissioning redundant equipment and upgrading the facility to last the extensive lifetime of the retrievals operation. In parallel, we're building and testing the waste retrieval equipment itself at an off-site supplier's factory in preparation for commencing waste retrieval."

10,000m³

Approximately 10,000m³ of historic waste and

60,000

items of Miscellaneous Beta Gamma Waste to be removed from the twenty two underwater MSSS compartments

Silo Emptying Plants

Almost two decades of work has gone into developing a way of retrieving the waste from the Magnox Swarf Storage Silo. Work started with supplier Ansaldo NES (then owned by Rolls-Royce) in 1996 on a project to design, manufacture, test and commission a bespoke solution to retrieve waste from the 22 compartments which contain miscellaneous beta gamma wastes, Magnox swarf and decomposed swarf sludges.

The machines to remove the waste – three silo emptying plants – will run on rails on the operating floor above the compartments to remove wastes via a hydraulic grab and specialist tooling system through a special airlock sitting on top of the waste silos. Access to the waste is through heavily shielded charge holes and the waste has to be removed without allowing any radioactivity to escape to minimise workers' radiation doses. Once the various wastes are pulled out, they will be cut up and placed into boxes for export and storage at a new state-of-the-art plant.

Alan Haile, Head of Magnox Swarf Storage Silos projects explained: "The design is complex to deal with the significant challenge of retrieving wastes, but is based on simple, robust concepts previously demonstrated within the silos in the 1990s when an early silo retrievals machine successfully removed 586 tonnes of Magnox fuel cladding from the silos.

"The retrieval capability has evolved to deal with changes in our technical understanding of the MSSS. We really have come up with a custom-built engineering solution – which is basically a whole nuclear waste plant on rails – developed for the unique challenges posed by the silos. We've even got additional specialist tooling capability to handle both known and anticipated waste items, so we're prepared for all eventualities!"

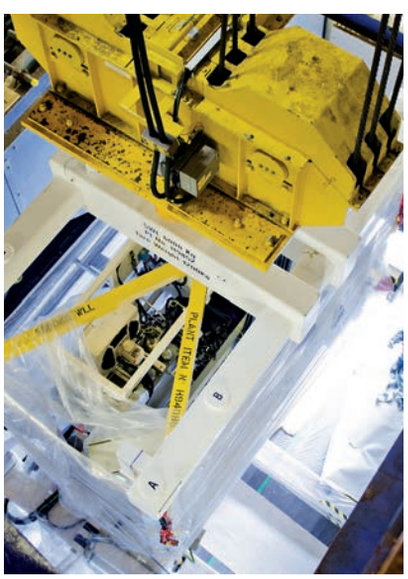
The retrieval machines will have to operate in a radioactive environment where operator access is restricted due to the radiation levels and are therefore heavily shielded. Because of this, the machines will need to work first time, safely and continually for up to 25 years, which is equivalent to some 90,000 waste retrieval cycles, without any internal modifications or upgrades.

Each one comprises a retrieval module, skip transfer system, winch and hose reel module, gamma gate, operator bulge and a dedicated control system – everything you could possibly want to safely retrieve radioactive waste on the go, as it will move from one compartment to the next on heavy duty rails built just for the job.

First delivery received

The first machine has been dismantled into 23 separate modules and is being shipped up the M6 from Wolverhampton. Weighing in at some 360 tonnes, it will come to Sellafield in 33 consignments, before being reassembled on the silos operating floor and re-tested before being available for solid waste retrievals in 2017/18.

Assembled from thousands of individual components, the machine is enormous at 13 metres long, 5.5 metres wide and standing 6.5 metres tall. It contains some 800 metres of pipework and over 10 kilometres of cabling, as well as seven electrical, control and instrumentation panels.



The workstreams

Reducing radiation in the liquid waste
We've now successfully removed historic liquid waste containing over 11,000 terabecquerels of radioactivity from the third extension store. In less than five years we've completed 100 Liquor transfer cycles. Over two million litres of liquid effluent has been removed from the store to reduce the radioactive content of the liquor by more than half, which will reduce the dose to the workforce when we start waste retrievals.

Removing the solid waste
In the late 1990s, we retrieved 586 tonnes of metal swarf from MSSS using equipment known as the Swarf Retrieval Facility (SRF). We've incorporated the lessons learned from SRF into the new Silo Emptying Plants (SEP) including endurance testing the bespoke equipment to overcome the lack of maintenance access. For instance one of our manipulators recently achieved 1,200 hours of trials (equivalent to 3-4 years of SEP cave operations) completing more than 11,300 typical manipulator tasks without any major failures.

Lifting the lids on the silos
We're lifting the lids – or charge plugs as they are known – on the original and first extension silos for the first time in literally decades. They weigh in at around 22 tonnes each and we've designed a special purpose lifting frame to free them. High resolution digital photography and 3D modelling will then give us the exact data to design the silo seating plates to lock onto the Silo Emptying Plants (SEP).

Controlling the hydrogen gas
We've installed passive ventilation to each of the MSSS 22 compartments to manage the plant's chronic hydrogen hazard in the event of a total and sustained loss of power and services to the facility. The system originally required intervention from operators to allow the building to passively vent, now intervention is no longer required to keep the silos safe and support waste retrievals.

Strengthening the silos for waste retrievals
The seismic restraint tower is substantial weighing more than 1,200 tonnes and was built to seismically safeguard the building when we start waste retrieval. We were faced with building in a highly secure area, with severe space restrictions and radiation levels that required a mobile shield in place to protect the workforce. Link steelwork has now been installed to tie-in the 15 metre high tower using 26 tonnes of steel by literally breaking into the side of the building which was no mean feat. ■

Sellafield Ltd

Nuclear Safety

"This was an excellent year in terms of safety and security performance across the board set against one of our best years in terms of operational delivery. I am proud of our workforce, our contractors, and our supply chain colleagues for their continued commitment to safety".

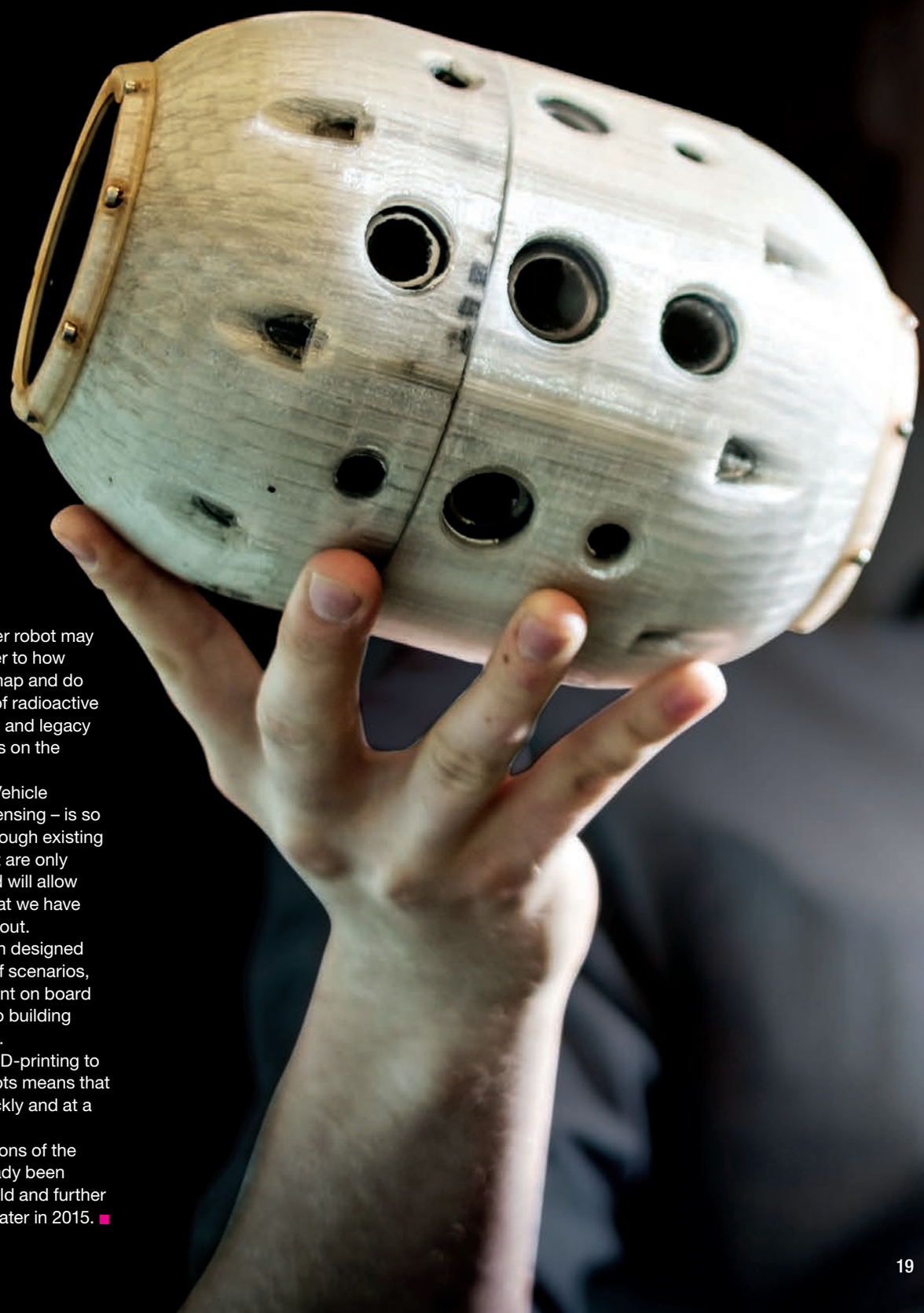
Paul Foster, Managing Director, Sellafield Ltd

FACTS AND FIGURES

- >300 days without a reportable environmental event
- Nine Royal Society for the Prevention of Accidents (RoSPA) Gold Awards
- Zero collective internal dose recorded – the first time since routine assessments started in 1985
- 4,000 environmental samples analysed
- More than 45,000 safety observations recorded by employees, resulting in £45,000 being donated to local charities
- The first cohort of students graduated with a foundation in radiation protection

Every year Sellafield Ltd publishes a review of our performance against nuclear, radiological, industrial and environmental safety. To view the latest report covering the 2014/15 financial year, please visit www.sellafieldsites.com/press/sellafield-ltd-safety-performance-report-201415/

Searching for solutions



A mini underwater robot may hold the answer to how Sellafield Ltd map and do real-time monitoring of radioactive waste in both modern and legacy nuclear storage ponds on the Sellafield site.

Avexis – an Aqua Vehicle Explorer for In-Situ Sensing – is so small that it can fit through existing penetration holes that are only 15cm in diameter, and will allow us to access areas that we have limited information about.

The robot has been designed to address a variety of scenarios, with a range of different on board sensors that tailor it to building specific requirements.

Our ability to use 3D-printing to produce the mini robots means that we can trial them quickly and at a relatively low cost.

Some demonstrations of the technology have already been undertaken at Sellafield and further trials are planned for later in 2015. ■

Delivering the performance plan

In December 2014, the Nuclear Decommissioning Authority (NDA) accepted our new performance plan for Sellafield.

DOWNLOAD
To download a copy of the performance plan visit www.sellafieldsites.com/press/performance-plan/

LATEST NEWS
To keep up to date with our performance, visit www.sellafieldsites.com/news or www.nda.gov.uk/what-we-do/our-priorities-and-progress

The plan, which was published in March 2015, sets out the work that needs to be done on the nuclear site, and when over the coming decades. Every financial year we agree specific targets with the NDA which align to the overall performance plan and against which our performance is measured.

The tables on the opposite page set out how we're performing against our 2015/16 targets at the end of June 2016.

1947	2 square miles	>100	663,000 tonnes	258 GWh
Construction of the nuclear facilities commenced	Area of Sellafield Site	No of nuclear buildings	Sellafield Site Steam Usage 2014/15	Sellafield Site Electricity Consumption 2014/15

Key information and data 2015/16

Key Milestones

Programme Area/ Milestone	Early PP14 P0 Date	PP14 P50 Date	Late PP14 P80 Date	Operating Plan Target Date	P50 Forecast @Q1 FY15/16
First Generation Reprocessing Plant					
SAV – Active commissioning complete		Jun-16			Jan-16
Pile Fuel Storage Pond					
Completion of export & treatment of all canned fuel		Mar-16		Jun-16	Mar-16
Completion of metal fuel retrievals	Dec-16	Sep-17	Feb-18		Dec-17
First Generation Magnox Storage Pond					
Commence bulk sludge retrievals	Jul-15	Apr-16	Jul-16		Jan-16
Commence fuel removal through export facility	Nov-15	Mar-16	Nov-16		Feb-16
Magnox Swarf Storage Silo					
SEP2 – Installation mid point achieved		Feb-16		Feb-16	Feb-16
SEP2 – Ready to commence retrievals	Jun-17	Dec-17	Mar-18		Dec-17
BEP – Start of Operations	Nov-18	Dec-19	Jan-21		Dec-19
Pile Fuel Cladding Silo					
5 off silo doors manufactured & testing of 2 doors complete		Mar-16		Mar-16	Mar-16
BEPPS/DIF – Ready to commence active commissioning	Sep-18	May-19	Mar-20		May-19
HAL					
Evap D – Ready to commence active commissioning	Mar-16	Apr-16	Aug-16		Jan-17
Magnox Reprocessing					
Complete all Magnox reprocessing	Jun-19	Dec-19	Jul-20		Dec-19
THORP Reprocessing					
Reprocess remaining contracted fuel	Nov-18	Nov-18	Mar-19		Nov-18
Security & Resilience					
Completion of HSA1		Apr-16		Apr-16	Apr-16
MSCF – Detailed design complete		Apr-16		Apr-16	Apr-16
MSCF – Design & build complete	May-17	Mar-18	Aug-18		Jul-18
Note: Ranges provided where relevant.					

Key Production Metrics

		Actuals	Actuals	Forecast	PP14 Baseline Assumption			Operating Plan Targets		
		14/15	Q1 FYTD 15/16	YE 15/16	15/16	16/17	17/18	15/16	16/17	17/18
Magnox	FHP Decanning (teU)	523	140	477	520	420	520	477	485	510
	Magnox Fuel Receipts (teU)	446	109	409	520	420	520	520	420	520
	AGR Fuel Receipts (teU)	191	43	192	178	183	183	192	192	192
THORP	Thorp HE Shear (teU)	386	84	435	434	389	450	434	389	450
	TR&S – MEB Removals	105	23	104	104	152	140	104	151	121
	SPRS Transfers	775	154	732	618	628	780	618	630	632
HLWP	WVP (hazard reduction teU)	1,503	270	1,205	1,297	1,130	1,279	1,202	1,130	1,279
Waste	CHILW Drum Transfers	1,102	100	481	1,632	0	0	475	583	180

Major Procurements Planned

Procurement Scope	Estimated Value	Contract Planned Date
Decommissioning Delivery Partner	£1bn	Dec-15
Supply of stainless steel boxes for ILW retrievals	£1bn	Jun-15
Supply of ASWs	£350m	Jun-15
Cranes	£200m	Sep-15
Tanks & Vessels	£100m	Apr-16
Shield Doors	£80m	Apr-16
Maintenance, Repair & Operation of Engineering Consumables	£65m	Jan-16
Security Fencing	£40m	Jan-16

Cavendish Nuclear

HOW WOULD YOU DESCRIBE YOUR ORGANISATION'S SOCIO-ECONOMIC PROGRAMME?

The aim of our socio-economic programme is to work collaboratively with Sellafield Ltd and local stakeholders in support of the social, economic and educational development of the communities of West Cumbria and the Warrington area.

Our socio-economic programme is organised around four key themes, designed to ensure that the nuclear industry can support a sustainable future for the local economy:

- Local employment
- Education and training
- Support for Local Supply Chain and SMEs
- Community support.

Cavendish Nuclear uses the local supply chain in West Cumbria for services from engineering support to catering and recently has spent more than £5 million per annum in the local economy. We have also provided a mentoring programme for local SMEs.

In 2014 we recruited 40 graduates and 25 apprentices and these recruits also mentor young people at local schools to consider a nuclear career.

DO YOU HAVE A SPECIFIC SOCIO-ECONOMIC INITIATIVE/PROGRAMME IN WEST CUMBRIA OR WARRINGTON THAT YOU ARE PARTICULARLY PROUD OF?

We are particularly proud of our role in the set-up and development of the Sellafield Design Services Alliance (DSA) socio-economic Plan.

This plan culminated in a simple A3 dashboard which has been used to communicate the DSA's progress on a number of objectives to stakeholders and help develop a common understanding between all parties.

We have established a Supply Chain Forum in collaboration with Sellafield Ltd, the Progressive Alliance, Axiom and Britain's Energy Coast Business Cluster. This Forum has helped establish stronger and more collaborative relationships between the Alliance partners and the supply chain and is being used as a model for other long term alliances.

WHAT BENEFITS DO YOU BELIEVE A COLLABORATIVE SOCIO-ECONOMIC APPROACH WILL BRING TO OUR COMMUNITIES?

A collaborative approach will bring together a broad range of experiences and best practices to support existing initiatives today and also provide innovative proposals for a sustainable future.

Key benefits of this approach will be:

- A stronger local supply chain with companies increasing turnover and profits, enabling them to increase the number of people they can employ within West Cumbria
- A sustainable stream of appropriately trained young people recruited from the local community who have the specialist skills required to work in the nuclear industry for Cavendish Nuclear and other businesses in the West Cumbria and Warrington areas. ■

£5 million
spent per annum in the local economy

Cavendish Nuclear

Location:
UK wide, including Westlakes Science and Technology Park, Sellafield Ltd site, Irlam and Daresbury

Number of employees:
3,000 UK wide, including 300 in West Cumbria and 500 in Warrington area

Number of graduates:
40 new graduates annually

Number of apprentices:
25 new apprentices annually

www.cavendishnuclear.com

Neil Proud, Sellafield Services Director, Cavendish Nuclear Limited

Waste plant powers ahead

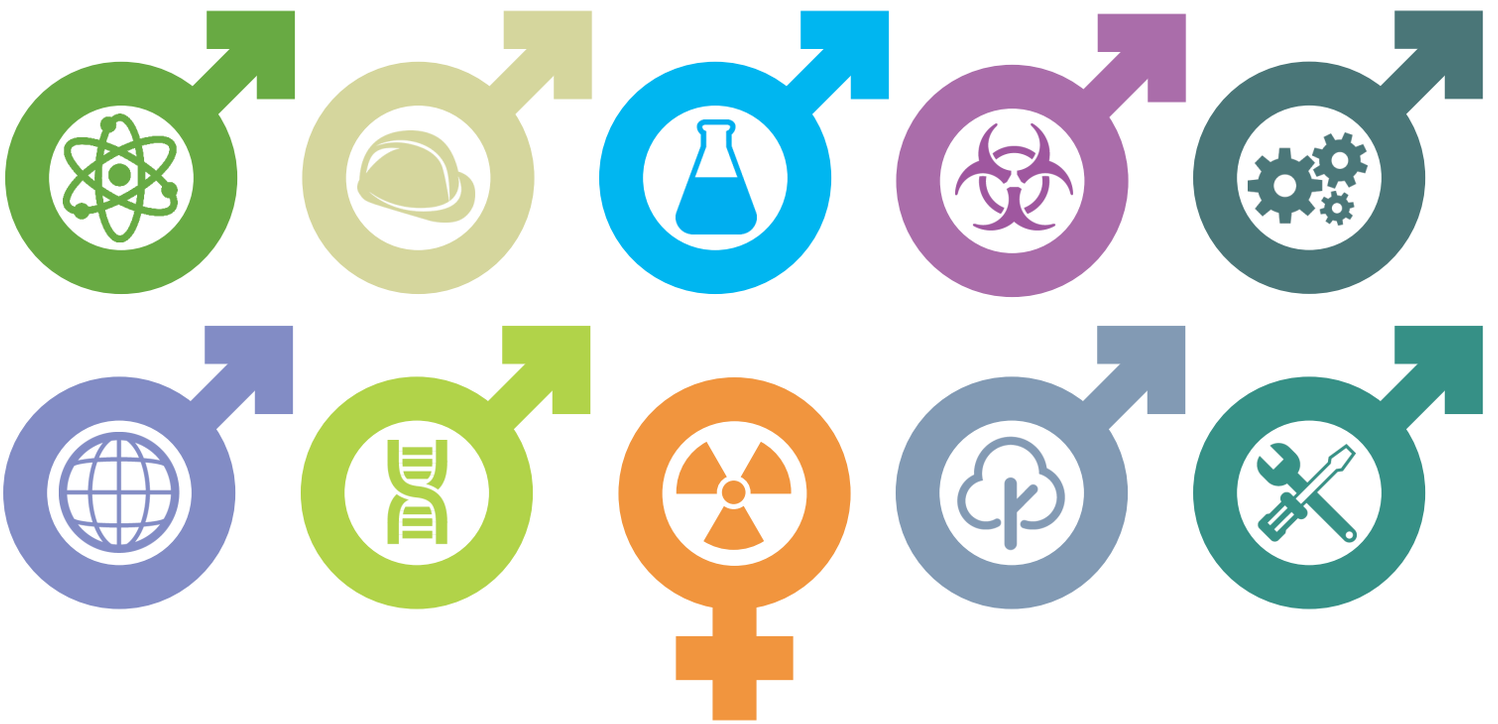
Implementing technology more often found in the automotive industry is improving the operation of one of our nuclear waste facilities.

The work will lengthen the life and improve throughput in a facility which super-compacts waste drums and places them in larger product drums for encapsulation and storage.

One of the improvements is the replacement of the vehicle that ferries the drums back and forth along a corridor within the facility. The vehicle, which has been running for almost twenty years, is slow and would have been a bottleneck for future throughput increases.

Normal power systems would not fit in the space available or allow the ongoing access to plant, therefore a new, smaller, inductive power loop system is being installed. Testing is under way and early indications are positive. We expect to install the new vehicle in the autumn. ■

Why are there still so few **women** in science and engineering?



SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS (STEM) HAVE LONG BEEN MALE-DOMINATED FIELDS. IN THE UK ALONE, JUST 13 PER CENT OF WORKERS IN STEM INDUSTRIES ARE FEMALE – **THAT'S NINE MEN TO EVERY WOMAN**.

ONE COMPELLING REASON TO TACKLE THIS PROBLEM IS THE UK'S NEED FOR MORE STEM WORKERS. THE LOOMING SKILLS GAP FACING THE ENERGY SECTOR AND ENGINEERING DISCIPLINES IS A MAJOR CHALLENGE IN DELIVERING THE COUNTRY'S ENERGY NEEDS – A DEMAND WHICH CANNOT BE MET WITHOUT INCREASING THE NUMBERS OF WOMEN IN STEM.

There's no single explanation for the lack of gender diversity in STEM; is it the result of perceptions and biases combined with the impracticalities of combining a career with family?

Many chalk it up to a lack of female role models in STEM to begin with. If you conduct a quick web search of famous scientists, you will be introduced to great and good of science; from Einstein and Newton, to Darwin and Hawking. The early female pioneers however are hidden in their shadows.

The history of women in science is often a tale of unrecognised talent and overwhelming male prejudice. In many cases, their trailblazing work was not taken seriously, or had to be attributed to male partners or colleagues in order to be accepted.

Take Marie Curie for example; a physicist and chemist who helped give birth to nuclear science. Together with her husband Pierre Curie, she discovered the chemical elements polonium and radium, and was later awarded two Nobel Prizes (the first person to do so) for her pioneering research on radioactivity. Despite her success, Curie faced great opposition from male scientists and never received significant financial benefits from her work.

As one of the UK's foremost nuclear engineers and a keen ambassador for women in STEM, Dr Dame Sue Ion, DBE, accredits learning about these female scientists for sparking her, and many others, interest in nuclear science.

"Women have always been important for the nuclear industry, right from the time of Marie Curie and Lise Meitner to the present day. It is now thankfully much more common to find women in many different positions and disciplines right across the sector," said Dame Sue Ion.

Having begun her career at British Nuclear Fuels Ltd in 1979, acting as Chief Technology Director from 1992 until 2006, Dame Sue Ion has had a long and prestigious career in the nuclear sector. Receiving not only an OBE for her services to the nuclear industry but also becoming the first woman to receive the Royal Academy of Engineering's President's Medal, Sue has led the way for other females in the nuclear industry.

"Although the industry has traditionally been male dominated I believe there are plenty of opportunities for women to do well and to progress to senior levels. I count myself particularly lucky for the opportunities I was given at an early age and having had supportive bosses and colleagues who only cared that you were doing the job well rather than whether you were male or female," she said.

Just like Dame Sue Ion, Sellafield Ltd employee and vice-chair of the Sellafield Ltd 'Women's Network', Dr Donna Connor has made it her mission to get girls interested in the field she loves: "Much has been written about a skills gap in my industry. Nuclear has an ageing workforce and we desperately need to get more young people to see

Dr Donna Connor, Sellafield Ltd employee and chair of the Sellafield Ltd 'Women's Network'

Top Left:
Dame Sue Ion, DBE

Top Right:
Kayleigh Harden, the country's youngest nuclear inspector

Bottom:
Engineering challenges and recruitment fairs

it as a place where they can grow a career if Britain is to remain at the forefront of the industry worldwide.

"Central to that is our ability to convince young women that it can provide them with the secure, diverse and fulfilling career they deserve, and I believe we can do that by providing young girls with appropriate role models. When you look across the great and the good of nuclear they are somewhat pale, male and stale; it's about time something was done about that, starting at the grass roots."

We must strive to educate young girls that being an engineer or a scientist doesn't have to be all about hard hats and test tubes; an education in STEM can lead you onto many different career paths, as Kayleigh Harden – the country's youngest nuclear safety inspector – discovered.

After graduating from the University of Manchester with a master's degree in physics, Kayleigh, 28, has worked her way up the career ladder to regulate Sellafield on behalf of the Office for Nuclear Regulation (ONR).

"I first became interested in the nuclear industry while studying for my master's degree. I particularly liked that the theory of nuclear physics is commonly applied to 'real life' engineering situations that bring us tangible benefits each and every day (for example, nuclear power reactor utilising the fission process). I am also motivated by the fact that there are still a lot of scientific unknowns and technological challenges ahead (for example, nuclear fusion), which makes the nuclear industry a really exciting place to work," she said.

"From there I joined the nuclear graduate scheme at BAE Systems, focusing on the nuclear engineering of the Astute Class submarines. During my time on the scheme I recognised the importance of ensuring safety when utilising nuclear power, and decided that my future in the industry would be in nuclear regulation."

Kayleigh added: "the scale and scope of the uk nuclear industry was relatively unknown to me until the final years of my degree so I think increasing the understanding of STEM industries in schools is vital to encourage more young people, especially girls, to consider a career in the sector."

Just like Sellafield Ltd, ONR or BAE Systems, many engineering and nuclear companies across the UK have a plethora of career opportunities available to men and women who have studied STEM at school or university.

Kenna Kintrea, Assurance Director at the Nuclear Decommissioning Authority said: "Engineering is a fantastic career choice that opens doors to all sorts of different, interesting and well paid jobs.

"Having an education in STEM equips you with a very useful skill set that can be applied in everyday life. My engineering training and experience means I naturally take a structured approach to problem solving, and always try to drive to the true root cause of issues, not the symptoms."

Clare Parker, a human factors engineer at Rolls-Royce, is pleased to see an increase in equal opportunities in her industry: "Gender diversity makes for a more successful company and I believe in modern times businesses should be doing everything in their power to promote a better gender balance in the workplace – one that is more reflective of the society in which we live."

Clare's sentiments are echoed across the STEM industries. In order to meet the UK's future skills gap, the Government, leading businesses and educational institutions need spread the word about STEM and break down any associated stigmas to make sure that tomorrow's skilled industries benefits from the influence and talent of young girls today. ■

"Gender diversity makes for a more successful company and I believe in modern times businesses should be doing everything in their power to promote a better gender balance in the workplace – one that is more reflective of the society in which we live."








Mark Steele
talks prioritisation

With another record funding agreement from the Nuclear Decommissioning Authority (NDA) there has never been more money spent at Sellafield. Despite this, the plan for Sellafield contains more work than funding. The task of prioritising what work is completed, and when, is being led by Mark Steele.

Mark Steele will be engaging with the supply chain on our ongoing prioritisation work at the next Sellafield Ltd supply chain event on 15 September at Energus.

PEOPLE THINK THAT THE BUDGET FOR SELLAFIELD HAS BEEN CUT

The truth is that we received our highest ever level of funding and investment in Sellafield for this financial year, with the Nuclear Decommissioning Authority securing more than £1.95 billion this year. Because this investment comes from the UK taxpayer we have even more responsibility to ensure that we get value for money from every penny spent. We need to take a balanced view of all the activities we undertake to enable an appropriate view of their relative priority. Our challenge has been to do this with the engagement of the business and develop a process which is demonstrably fair and transparent.

SOME OF OUR ACTIVITIES ARE A GIVEN

We have certain things that we have to do in order to reduce the risks and hazards on the Sellafield site. This work will continue. There are also things that we do that need to stay in our plans because they are the right thing to do – such as the recruitment of apprentices, graduates and specialist trainees. These people are the lifeblood of our organisation and key to our future success.

WE DON'T HAVE UNLIMITED FUNDS

The Sellafield programme will take more than a century to complete, there are hundreds of nuclear facilities, thousands of buildings, and many major projects, but we can't do all of this work all at once. Like any other organisation, we have to prioritise the work that we could do against the resources that we have available, and deliver within our budget.

EVERYONE AT SELLAFIELD HAS A ROLE IN DELIVERING VALUE TO THE TAXPAYER

Every pound that we spend on a t-shirt or a working lunch is a pound that we can't spend elsewhere. We ask everyone at Sellafield to spend the money we have as if it was their own, and I have been delighted with their response. It isn't yet universal, but you can hear conversations across the business where people are challenging unnecessary spend.

MILLIONS OF POUNDS HAVE BEEN SAVED, BUT MORE NEEDS TO BE DONE

More than £110 million of work that we planned to do during 2015/16 has now been either deleted, deferred or delivered differently. While this takes us a long way towards closing the gap between planned work and funding, we are continuing to review how and when we will deliver work.

NO DECISION IS TAKEN LIGHTLY

There are so many factors to take into account when reviewing planned work at Sellafield. How much of the project is already completed – will it cost more to stop the project than it would to complete it? What impact will stopping or deferring work have on our supply chain? No decision is made without carefully thinking all of these things through. Obviously we want to stop and defer as little work as possible – after all, the work was put into the plan for a reason. As we have demonstrated an ability to control costs and deliver scope within the amount of money we receive from the NDA – known as the Annual Site Funding Limit - we have been pushed to consider how we can demonstrate that the impact of our over arching site activities is as low as responsibly practicable. Prioritisation is part of this to ensure that we focus as much funding as reasonably practicable into operational and hazard reduction activities. ■

What makes a strong partnership?

As part of the new model for Sellafield, Sellafield Ltd is looking for strategic support from the private sector.

Trust, shared values, and cultural fit are traits and characteristics that you would expect to find high on the list of anyone looking for a long term relationship.

"They are just as important to us as the technical capability", said Graeme Ranking, the man charged finding a strategic partner for Sellafield Ltd as part of the organisation's transition to become a wholly owned subsidiary of the Nuclear Decommissioning Authority.

What else is Sellafield Ltd looking for? "The willingness to create a good, productive and collaborative relationship, strong capability and extensive experience in our industry or even another complex industry," he said.

"We want an organisation – or organisations – with the expertise to be able to give strategic support and advice to Sellafield Ltd, as well as the experience to be able to help make things happen on the ground."

The contract for this 'procurement first' for Sellafield Ltd won't be awarded until early 2017, but early engagement with the market is already under way.

"The difficult part of this process isn't defining the kind of organisation we want to work with – we want to work with organisations that are driven by the same values and behaviours as us – but in setting clear expectations about what we want them to do and how Sellafield Ltd will evolve into a market-enhanced site licence company," he added.

"Determining exactly what we want from the market will be the result of various packages of work. Some of the information comes from self-assessment – what are the core strengths and capabilities of our workforce, and where there is more value in 'buying' expertise with a view to enhancing our capability for the future? We have been testing that with both internal and external stakeholders. What we have also now started to do is seek the views of the supply chain and wider market."

> We want to work with organisations that are driven by the same values and behaviours as us.

That early engagement has seen Graeme and his team sit down with more than 20 organisations that have experience in key aspects of strategic partnering and who have developed such partnerships at key points in their organisational life.

He said: "The organisations come from our own supply chain and beyond, and represent a wide range of size, capabilities, and specialisms. What we got was a broad range of experiences from organisations that have been in a similar situation to Sellafield Ltd in looking for partners, and those who have experience of being a delivery partner themselves."

Those organisations included Crossrail, the Olympic Delivery Authority, JCB, Rolls-Royce, the MOD and McLaren.

Graeme explained: "Crossrail and the Olympic Delivery Authority shared their experience of starting partnerships from scratch and against hard and fast deadlines – the Olympic project had to be completed in time for the 'Queen' to parachute into the Olympic stadium.

"We also spoke with ITM who produce eco-friendly fuels. Here JCB had taken a stake in the company taking a similar role to a strategic partner with a view to enhancing its value. Rolls-Royce's power and propulsion unit joined forces with Areva and Hinkley Point and were very generous in sharing how they started a partnership and built up trust.

"The use of delivery partners is not a nuclear specific issue – McLaren partner with many different organisations every day to make sure that they both have an optimum balance of internal capability and external expertise."

"We are incredibly grateful for the openness of the organisations that we have spoken with so far and for sharing their experiences. We have learned a lot about what works and just as importantly, what doesn't and, as a result, have a better idea of our strategic need."

Sellafield Ltd's expectations are becoming clearer, but what about the needs and wants of the supply chain? "We know that the supply chain will have its own suggestions and requirements as to how the model might work", he continued: "We are completely open to that discussion and it will be a key part of our wider market engagement in the autumn." ■

10 SELLAFIELD CONSTRUCTION FACTS

1

THERE ARE SEVEN MAJOR PROGRAMMES OF WORK CURRENTLY UNDER-WAY AT SELLAFIELD THAT RELY ON THE AVAILABILITY OF NEW BUILDINGS:

First Generation Reprocessing Plant (FGRP)

Pile Fuel Storage Pond (PFSP)

First Generation Magnox Storage Pond (FGMSP)

Magnox Swarf Storage Silos (MSSS)

Pile Fuel Cladding Silo (PFCS)

Highly Active Liquor (HAL)

Intermediate Level Waste (ILW)

2

£350m

Sellafield Ltd spends more than £350 million every year on major projects, constructing the buildings that we need in order to empty and demolish old facilities

3

THERE ARE MORE THAN A DOZEN MAJOR PROJECTS CURRENTLY IN EITHER DESIGN OR CONSTRUCTION PHASES AT SELLAFIELD

4

The most recently completed major project was the Sludge Packaging Plant 1 which received it's first intake of sludge from the First Generation Magnox Storage Pond in April 2015

5

THE NEXT MAJOR PROJECT TO BE COMPLETED WILL BE SEPARATION AREA VENTILATION PROJECT

6

Evaporator D is one of the largest nuclear construction sites in the UK

7

11% UNDER BUDGET

Our new Whitehaven town centre office accommodation, Albion Square, was 'Highly Commended' in the Construction News Project of the Year Awards. The highly energy efficient building was delivered 9 weeks ahead of schedule and 11% under budget

8

Industrial Safety 'lost time' accidents were 0.17% for 2014/15

9

LARGEST SINGLE POUR

Largest single UK pour of self-compacting concrete took place at Sellafield at the Magnox Swarf Storage Silos to provide foundations for seismic strengthening to the facility

10

THE SELLAFIELD SITE IS NOW ONE OF THE LARGEST CONSTRUCTION SITES IN UK

From pioneering past to the heart of the nuclear future

Don't be deceived by the quiet beauty of Cumbria's rolling fells, beautiful coastline, and Georgian towns. The area is leading something of an industrial revolution, amassing an unrivalled expertise in all things nuclear and establishing itself as the UK's Centre of Nuclear Excellence...

The birthplace of civil nuclear power, Cumbria's nuclear heritage is as old as the industry itself. Today it is home to the greatest concentration of nuclear scientists, engineers and technologists in the world.

It is where decommissioning solutions, new electricity generating capacity and innovative science and engineering are pioneered for the next generation. It is where our high energy, low carbon future is made possible.

The UK already has a key strategic asset in its nuclear industry focused on Cumbria, dating back to the very start of the civil nuclear power industry in the 1950s.

All aspects of the nuclear industry are present or planned for the west of Cumbria from reactor operations, fuels manufacture and highly complex radioactive materials management to decommissioning and the stewardship of nuclear waste.

With an increasingly large university sector particularly in nuclear research, a strong supply chain presence and a trained and skilled workforce, there is considerable capacity to grow this asset and its contribution to the UK economy and to deliver the growth ambitions set out in the Government's Nuclear Industrial Strategy (2013).

The Centre of Nuclear Excellence will make a major contribution to meeting the UK's energy needs as well as helping to deliver the Government's low carbon agenda through substantial nuclear new build investments, alongside other low carbon generation capacity. Through its involvement in all parts of the region's nuclear sector, the Centre of Nuclear Excellence has an important role to play in the Northern Powerhouse.

THE UK CENTRE OF NUCLEAR EXCELLENCE AND ASSOCIATED COMPANIES HAVE THE POTENTIAL TO:

- Capture a significant proportion of the estimated £90 billion of new UK nuclear investment opportunities for the private sector supply chain;
- Generate more than 3,000 new jobs;
- Provide more than 3.6 GW of electricity over the long term to assist with the UK's energy security;
- Increase GVA through the creation of new companies and investment in West Cumbria, as well as increased exports for its companies;
- Increase UK influence and collaboration in European and wider global nuclear markets;
- Provide the platform off which to develop a new standard for nuclear expertise in the UK, and increase the UK's standing in the international nuclear sector;
- Enhance world leading R&D for the nuclear and radioactive waste management sectors;
- Provide wider and faster development and exploitation of new technologies based on customised skills and expertise;
- Improve skills at all levels of education and increase practical application to the nuclear and energy sectors;
- Improve physical and social infrastructure for the region in support of the projects, including schools and colleges to deliver the personnel to construct new facilities.

The combined experience and expertise of the organisations involved in regeneration and economic development, education and research, the public sector and business and industry create the UK's Centre of Nuclear Excellence. They include:

- Cumbria Local Enterprise Partnership
- Britain's Energy Coast
- Copeland Borough Council
- Allerdale Borough Council
- Department of Energy and Climate Change
- Department of Business Innovation and Skills
- Nuclear Decommissioning Authority
- Energy Coast UTC
- Cogent
- The National Sills Academy Nuclear
- Gen2
- UCLAN
- The University of Manchester Dalton Nuclear Institute
- Centre for Leadership Performance
- NuGen
- BAE Systems
- Sellafield Ltd
- Nuclear Industry Association
- Direct Rail Services
- National Nuclear Laboratory

We seek to include all organisations that have an interest in the best growth outcomes deriving from the significant investment and additional investment in nuclear excellence focused on Cumbria. ■

14,500

More than 14,500 people are directly employed in the nuclear industry in the area, decommissioning the past, building for the present and innovating for the future.

27%

More than a quarter (27%) of the whole UK civil nuclear industry sits within the Centre of Nuclear Excellence.

CENTRE OF NUCLEAR EXCELLENCE

www.centreofnuclearexcellence.co.uk

Sellafield expert in international role

Ian Gordon, external affairs manager from Sellafield Ltd was chosen from one hundred applicants to become section head for waste technology at the International Atomic Energy Agency (IAEA) in Vienna, proving that Sellafield really does have the best people safely leading the UK clean-up. Fiona Gregg caught up with the man who got his dream job…

Eight months into his new role, I talked to him about his new job with IAEA, and how his new life in Vienna compares to West Cumbria.

My first clue that life in Vienna is different to that in West Cumbria was the climate, as I am greeted with 'good morning from sunny Vienna – how are you?' when Ian answers the phone.

The second clue gives me an insight into the global scale of Ian's work. He only has a short amount of time to talk to me before he has to speak with some representatives from Australia.

I am keen to understand what else is different, but let's start with the basics…

You worked at Sellafield for over 12 years, what drew you to apply for this new role?

I recognised this as a really good opportunity, both for my professional development, and for Sellafield Ltd, which is why I applied for the role. I hope to return to Sellafield in a few years with a deeper knowledge of technological applications for managing waste along with a network of global contacts which can help further accelerate our mission to clean up the nuclear legacy on the site. I'm grateful to Sellafield and to the Nuclear Decommissioning Authority for their support to me in fulfilling this assignment with IAEA. It's a measure of their commitment to constructive international engagement and to the development of their staff.

Tell me about the waste technology section.

What do you do?

We support all technological aspects of radioactive waste management. The requirement to safely and securely manage radioactive waste affects all member states – both those with nuclear power programmes and those with scientific, medical, agricultural and industrial applications of nuclear technology. The team is 28 strong and brings together nuclear experts from around the world.

So, eight months in – how's it going?

It's great – the team I'm leading are passionate, open, knowledgeable, hardworking and they co-operate very effectively with other colleagues. They come from a wide range of nationalities – Brazil, Slovenia, Germany, USA, Japan, Czech Republic, Cuba, Ireland, Slovakia and Hungary – so it's certainly one of the most culturally diverse teams I have ever worked with. Some of the work is surprisingly 'hands on', for example when a team goes to a country to condition sealed radioactive sources, safely and securely once they have been used in medicine, industry or agriculture.

What are the similarities between your two jobs?

The IAEA does a lot of things that are relevant to Sellafield – developing methods to effectively and safely manage radioactive waste in a sustainable way. This all helps to maintain public confidence in all aspects of using nuclear technology for peaceful purposes. I am working with experts from all over the world, sharing experience and learning which I will be able to bring back to Sellafield.

My experience at Sellafield with Japanese organisations has been very helpful in my work

at IAEA. I gained a great deal of understanding, both whilst I worked in Sellafield MOX Plant and later, when I worked on an information sharing agreement between Sellafield and TEPCO (Tokyo Electric Power Company – operators of Fukushima Daiichi). I'm really grateful to have had these experiences and being part of the latest IAEA mission to Fukushima Daiichi reminded me just how much effort Japan has put into their clean-up activities.

"It's an alignment of the planets – I pinch myself every day"

It's clear that any expansion in the use of nuclear technology depends upon public acceptance. The public look to how the nuclear community deals with radioactive waste (both current and legacy). Building trust and respect with the communities in which we operate needs continuous commitment. I see that even more clearly from within the IAEA – many conversations about radioactive waste management shift quite rapidly from technical details to conversations about trust and respect.

Is office life much different in Vienna compared to West Cumbria?

It was a bit strange at first, we all work in our own separate offices and I'm used to a big, open plan office – it's great for concentrating on a piece of work, but open plan works well for interacting with colleagues. Entering the canteen at the IAEA you hear what you think is the usual buzz but then you realize that people are speaking dozens of different languages from all around the world. I still miss fish and chips, with friends in the Sellafield canteen on Fridays.

My colleagues are from all over the globe and not all of them have had the chance to visit the Sellafield site so I am pleased I brought an aerial photo of Sellafield. I've pinned it up outside my office and happily share my knowledge of the site with anyone who shows the slightest bit of interest. There can be some very interesting debates about which was the first commercial scale nuclear power station – one view being that Obninsk (in Russia) beat Calder Hall to that claim. As Calder Hall had an output of around 240 MWe and Obninsk around 6 MWe, a lot hangs on the words 'commercial scale'.

Have you settled in to your new home?

Surprisingly yes, we moved from a 300 year old house in the country, surrounded by fields and cows, to an apartment block with no garden. We do have a decent sized terrace and my wife, Phillipa is a keen gardener, so she has been busy turning that in to a garden. The apartment is six floors up, on the roof of a typical old Viennese apartment building, which has about 40 flats in it.

Have you had time to enjoy Vienna socially?

When we step out of the front door we are about 250 metres from a U-Bahn station and surrounded by metropolitan cafes, restaurants and boutiques. There is an Olympic-size swimming pool about a five minute bike ride away and a large open air ice skating rink a 20 minute tram ride away. We brought our bikes with us and they've had plenty of use. We take them on the train into the country, so we can cycle along the Danube, enjoying the refreshments that the many wine bars have to offer along the way.

Do you still keep in touch with your Sellafield colleagues?

Absolutely – I'm in regular contact with my colleagues back home keeping them up to date with what the Gordon family are up to and hearing the latest from Sellafield. There have even been a few opportunities to catch up with several of them here in Vienna, as Sellafield Ltd is regularly invited to contribute to publications and to present at IAEA conferences, showcasing the expertise and learning from of our nuclear professionals. ■

Technical Meeting on Learning from International Experiences of Stakeholder Involvement in Radioactive Waste Management, IAEA Department of Nuclear Energy, Vienna International Centre, Vienna Austria, 4-8 May 2015

Waste Technology Section is within the IAEA's Department of Nuclear Energy and operates through five Team Leaders, providing effective and timely support to Members States on the following topics…

- Pre-disposal (pre-treatment, treatment, conditioning, transport and storage)
- Disposal (both surface and geological)
- Decommissioning and Environmental Remediation
- Disused Sealed Radioactive Sources – helping to make safe all the 'sources' used in industry, medicine and agriculture

Major activities include: Professional Networks, workshops, conferences, training, Publications, international databases on RWM (eg NEWMDB), aon-site support; peer reviews (ARTEMIS) and post-Fukushima inputs to IAEA Action Plan/Missions to Fukushima Daiichi.

"To have a globally recognised agency inviting one of our colleagues to support efforts in managing radioactive waste is a huge compliment not just to us at Sellafield Ltd, but to Ian's knowledge, experience, enthusiasm and personality. It is testament to him and shows that the skills and experiences of the Sellafield workforce are a valuable international asset – one that we are honoured to share amongst the international nuclear family."

Tony Price, Chairman of the Board, Sellafield Ltd


Risley

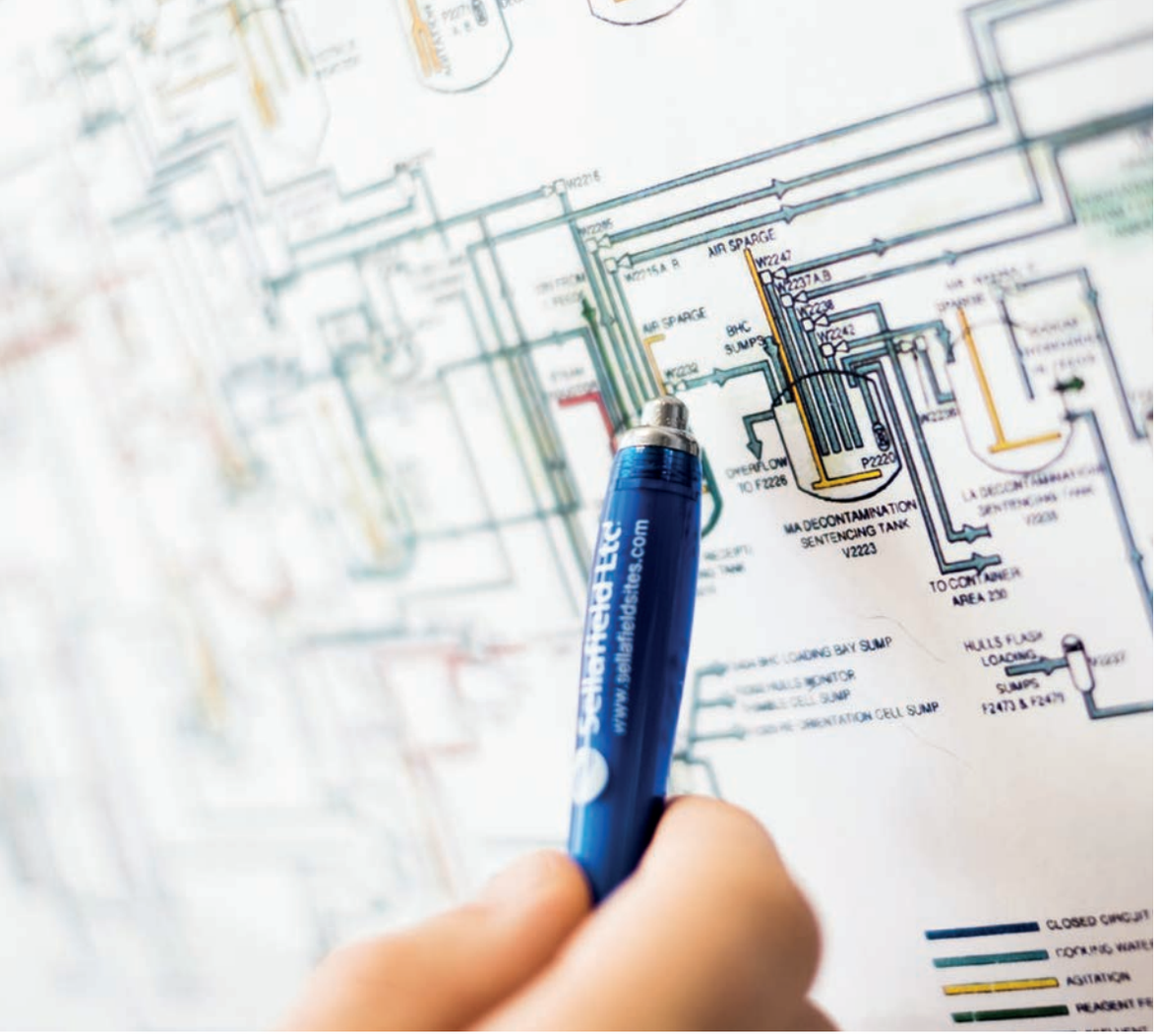
HINTON HOUSE: SELLAFIELD LTD'S ENGINEERING CAPABILITY IN THE HEART OF RISLEY

Although the name Sellafield will always be inextricably linked with West Cumbria, the nuclear expertise within Sellafield Ltd spreads much wider.

Halfway down the M6, and a three hour drive away from the site, is Warrington – home to more than 1,500 staff who are as committed to delivering the Sellafield mission as their colleagues up north.

The main hub for this work is Hinton House, a huge office complex in the heart of Risley. Projects are housed in other buildings around the area, but it is Hinton House which is the heart and focus for Sellafield Ltd's work there.

The building, which has recently celebrated its 30th birthday, is designed in a striking Japanese pagoda style and from the air looks like a giant "W". It was named after Lord Christopher Hinton of Bankside, a nuclear pioneer who died in 1983. Lord Hinton played a major role in establishing the UK nuclear energy programme, and set up the United Kingdom Atomic Energy Authority's



"It is a fundamental part of Sellafield Ltd's strategy that our Warrington base continues to deliver high quality resource and support to Sellafield site."

Andrew Carr, Hinton House Director, Sellafield Ltd

industrial group at Risley.

Built as the head office for British Nuclear Fuels Ltd, Hinton House became the property of current owners the Nuclear Decommissioning Authority in 2005, and Sellafield Ltd now occupies the majority of the building under a tenancy agreement.

The work done at Hinton House is vitally important for the delivery of the Sellafield Ltd mission. Based inside are the bulk of the company's engineering designers, supporting the major development projects on-site.

But it is not just a home for designers. On its five floors are a number of diverse departments without which the company could not function effectively, including Legal, Human Resources, Communications and Finance.

The skills housed within its walls are second-to-none, and this means that Hinton House, and in effect Warrington, continues to be a crucial part of the delivery of Sellafield Ltd's strategy.

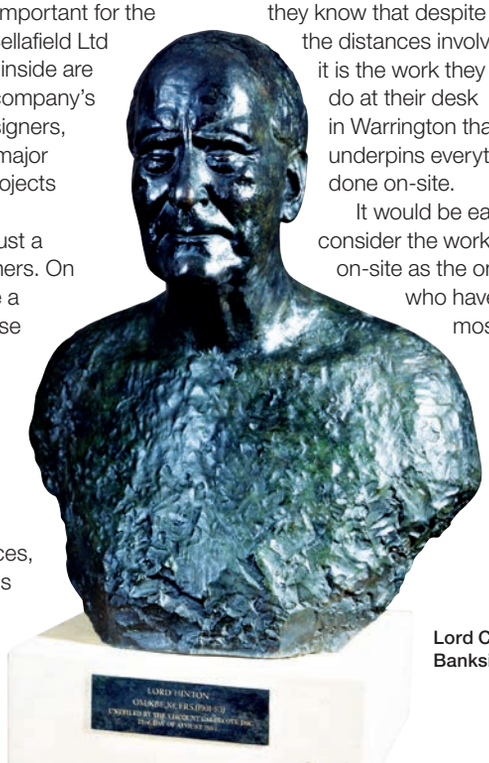
The teams there keep the same level of commitment to safety and security that their Cumbrian colleagues do. And they know that despite the distances involved, it is the work they do at their desk in Warrington that underpins everything done on-site.

It would be easy to consider the workers on-site as the ones who have the most influence on the success or failure of any of the many vital projects currently under way there. But it is usually the case that the buildings they are constructing, or the complex technology they are using, has been designed in Warrington. Not only that, but it's also a fair bet that in Hinton House the legal issues have been sorted, the manpower has been sourced, the money has been allocated, and the right people have been kept informed about the work that is being done.

Andrew Carr is Hinton House Director. He said: "I feel very strongly about the value that the people based in Hinton House and its satellite offices bring to the business. The people working in Hinton House are proud of the work we deliver, and we understand the key role we have.

"It is a fundamental part of Sellafield Ltd's strategy that our Warrington base continues to deliver high quality resource and support to Sellafield site. The skills and resources of the company's employees and support teams here will continue to be a key part of the successful delivery of Sellafield Ltd's aims."

It is a distinct community of its own, with its own skills and strengths, and further away than a lot of people travel for a weekend break, but it's true to say that there really is a corner of Cheshire that is forever Sellafield. ■



Lord Christopher Hinton of Bankside, a nuclear pioneer

Balfour Beatty

Rachel Beech, Head of Supply Chain, Balfour Beatty

HOW WOULD YOU DESCRIBE YOUR ORGANISATION'S SOCIO-ECONOMIC PROGRAMME?

Wherever we operate we aspire to be integrated within the area, supporting the local community, its businesses and workforce. Our social mission is delivered through our 'Involved' Programme which was established in 2015.

'Involved' is our approach to social sustainability, and our community investment programme which describes how we can maximise social benefits through our activities,

'Involved' helps us to deliver our Blueprint – our strategy to be a more sustainable business through:

- Local employment and skills
- Community engagement through charitable fundraising
- Mentoring and business support
- Volunteering
- Supporting local businesses;
  - Local spend
  - Spend with SMEs
  - Spend with female owned businesses
  - Spend with Social Enterprises (SEs)

At the beginning of 2014, our Construction Services business in the UK committed to spending £1billion with UK SMEs, we went on to achieve £1.6bn spend against this target, including £4.8m with Social Enterprises (verified by Dun and Bradstreet) and endorsed by the Prime Minister.

We are also the main sponsor for the London Youth Games, work in partnership with the Duke of Edinburgh Awards and support a number of other charities through our Charitable Trust, Building Better Futures including Coram, Barnardo's and The Prince's Trust. Our partnership with The Prince's Trust alone has generated £4.29m of positive social outcome for young people.

DO YOU HAVE A SPECIFIC SOCIO-ECONOMIC INITIATIVE/PROGRAMME IN WEST CUMBRIA OR WARRINGTON THAT YOU ARE PARTICULARLY PROUD OF?

We have a commitment to spend with local SMEs and in 2014 we spent £28m with suppliers in Warrington including £1.3m with SMEs and £333K with micro businesses. In 2014 we also spent £19.9m with suppliers in Cumbria, £16m of that was with SMEs and £1.9m with micro businesses in Cumbria.

Our spend in Cumbria includes £17K with Brathay Trust, a charity with the mission to improve the life chances of children and young people by inspiring them to engage positively in their communities. They work with some of the most vulnerable and 'hard-to-reach', helping them to develop the confidence, motivation and skills that they need to unlock their potential and make positive changes in their lives.

We are also particularly proud of our commitment to training including apprenticeships and traineeships on our Sellafield projects. Thomas Hyland, from Whitehaven began his career with Balfour Beatty as an electrical apprentice on our Sellafield SPP1 project. During his apprenticeship he worked in Australia as part of an apprentice exchange programme, gained NVQ levels 2 and 3 in Electrotechnical Technology Installation and completed an ONC and a HNC in Electrical Engineering. Thomas was awarded Balfour Beatty Apprenticeship of the year and is now part of our core bidding team for the UK's Nuclear New Builds.

Balfour Beatty is a member of The 5% Club, which is focused on creating momentum behind recruitment of apprentices and graduates into the workforce. Membership means that we commit to 5% of our workforce to be apprentices, graduates or sponsored students. Across our Sellafield projects alone we are in excess of 13%. We also encourage our supply chain to join The 5% Club and make the same commitment.

WHAT BENEFITS DO YOU BELIEVE A COLLABORATIVE SOCIO-ECONOMIC APPROACH WILL BRING TO OUR COMMUNITIES?

A collaborative approach is the only way to deliver an effective socio-economic programme and means we can better align social value to meet local needs. The combined impact of stakeholders working together in a coordinated way can and will bring significant and tangible benefits to local communities including;

- Improving opportunities for employment and training of local people
- Provide contracts and increased trade for local businesses
- Support for local charities and community groups
- Improving services to local communities.

We are the largest construction business in the UK with a turnover of £2.7 billion. That means we have the potential to make a real difference. From major projects that improve the UK's national infrastructure, to local and regional projects that help build lasting communities. Social responsibility is no longer a "nice to have" for Balfour Beatty but has become central to the way we do business. We don't just build assets and infrastructure but sustainable communities as well, investing in skills and resources for the needs of tomorrow. ■

£17k

Our spend in Cumbria includes £17K with Brathay Trust

Balfour Beatty

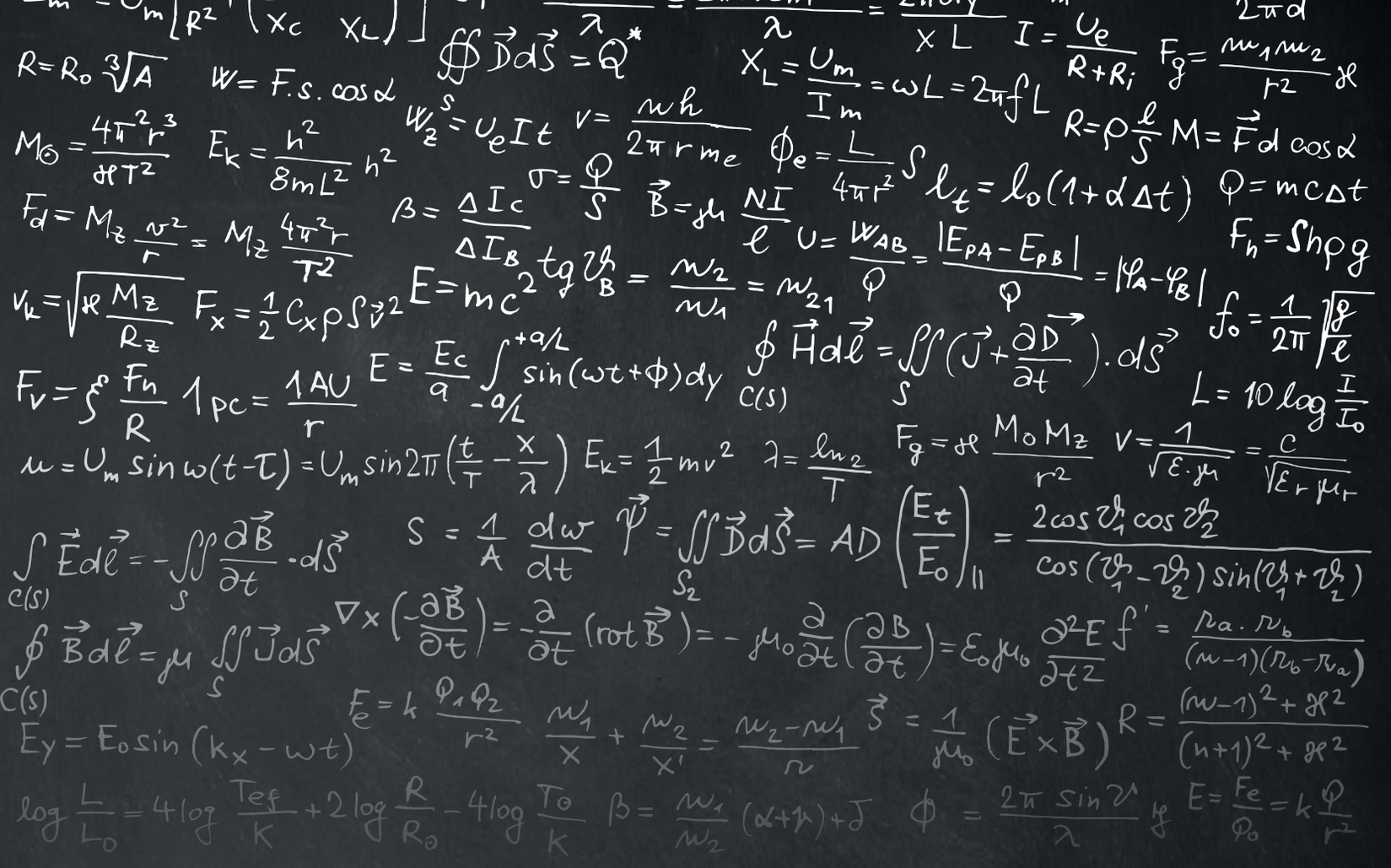
Location in Cumbria:
Sellafield Ltd Site, Seascale; Westlakes Science & Technology Park; Warrington

Number of Balfour Beatty employees *(on Sellafield projects)*:
161

Number of Balfour Beatty graduates *(on Sellafield projects)*:
5

Number of Balfour Beatty apprentices/trainees *(on Sellafield projects)*:
16

www.balfourbeatty.com



$$E = mc^2$$

It’s all relative to Sellafield

This year Albert Einstein’s Theory of Relativity turns 100 years old and, like many things, Sellafield’s evolution can be traced back to the equation that came from the theory.

The theory is about space, time, energy and gravity and it’s called ‘relativity’ because Einstein discovered that measurements of space and time can look different, depending on where you are observing it.

Within the theory comes perhaps the most famous equation of all time – $E=mc^2$ – which is energy equals mass, times the speed of light, squared. It sets out that under the right circumstances you can transform mass into energy. It is how nuclear power stations work and it is how nuclear bombs work.

In August 1939, Einstein wrote to U.S. President Franklin Roosevelt to warn him that the Nazis were working on a new and powerful weapon: an atomic bomb.

Roosevelt approved the development of a nuclear weapon under the Manhattan Agreement, which saw American and British scientists work together. The resulting bomb brought the Second World War to an end, saw Britain start its own race for nuclear arms and the creation of the Windscale nuclear reactors at Sellafield.

"While 2014/15 was a great year, the confidence that our stakeholders have in our ability to deliver will only ever be judged on what we do today and tomorrow. We must stay focused on safe and consistent delivery to ensure the best future for our organisation."

Paul Foster, Managing Director, Sellafield Ltd

Financial Highlights

£1,883m

Record levels of investment in Sellafield by the Nuclear Decommissioning Authority: £1,883 million – an increase of £168 million compared to 2013/14

100%

Our increasing scrutiny on financial performance and planning resulted in us utilising **100% of the funds available** (2014: 99%)

£33m

Through the safe delivery of our clean-up, operations and efficiency targets, we achieved a fees of £39 million (2014: £37 million) and a **profit after tax of £33 million** (2014: £28 million)

£86m

We increased our level of **investment in research and development** to £86 million (2014: £82 million)

The fee earned during the year is a reflection of our delivery and performance in all of our activities from risk and hazard reduction to operations and functional support.

Operational Highlights

The start of sludge retrieval from one of our most hazardous clean-up projects, the First Generation Magnox Storage Pond.

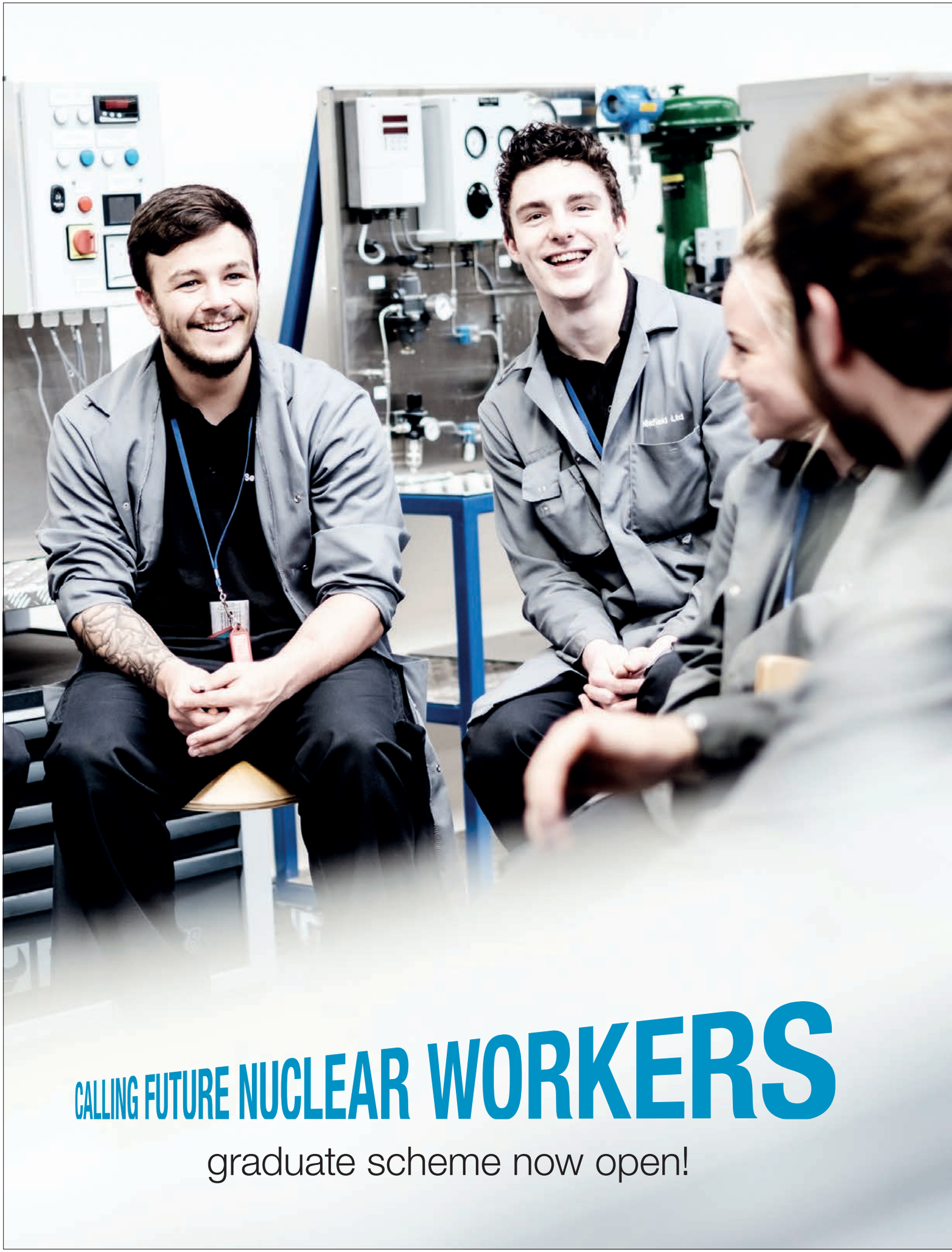
The retrieval of isotopes used in the development of radiological medical treatments from the Pile Fuel Storage Pond.

The start of the demolition of the Windscale Pile Chimney which was damaged in the 1957 Windscale fire.

The operation of ageing reprocessing facilities to achieve some of the highest production rates in recent years.

The continued construction of nuclear waste treatment and storage facilities, turning Sellafield into one of the biggest construction sites in Europe.

The continued investment in the next generation of nuclear workers through record levels of apprentice and graduate recruitment.



CALLING FUTURE NUCLEAR WORKERS

graduate scheme now open!

Sellafield Ltd

This is the most important work you'll ever do. It's a big claim, but we stand by it.

Join Sellafield Ltd as a graduate and your achievements will echo long into the future. You'll transform the UK's first nuclear site, leaving it a safe, environmentally sound space for all the generations that follow.

This isn't just a project. This is a mission lasting 100 years. And because the work you'll do here is of unparalleled importance, we offer a lot in return.

Accredited development

Our two-year programmes will see you stretched and supported in equal measure. The training is excellent, and on-the-job learning opportunities are almost limitless. As you'd expect, our individual technical and business programmes are accredited by key institutions.

Join the smart community

You'll be at the heart of a smart community, part of a network of ambitious, team-spirited graduates who will help shape the future – not just for the Sellafield site, but for the world's nuclear sector.

As importantly, you'll work shoulder-to-shoulder with industry-leading (sometimes world-leading) experts. Recognised names in complex fields who will advise, challenge and mentor you, allowing you to develop rapidly.

Epic experience

You're graduating at the right time. The Sellafield decommissioning era is now in full flow, offering you engineering, technical, business and environmental challenges of fascinating complexity and sophistication. You'll join a growing team experts and professionals doing high-profile work. The world is watching and your achievements will get noticed.

Future-proof your career

The nuclear renaissance has begun. The skills and knowledge you gain here will be in huge demand in many sectors, for many years to come.

Excellent benefits

The rewards and benefits of working for Sellafield Ltd extend far beyond great work and stunning places to live. Your package here will include a good pension, generous holiday allowance and other perks, including relocation package.

But, in the final analysis, what we're offering graduates like you, is everything you need – in a unique environment – to reach your true potential.

KEY DATES

2015 Intake

29 June 2015: Industrial Placement and Summer Placement Start Date

21 September 2015: Graduate Start Date

2016 Intake

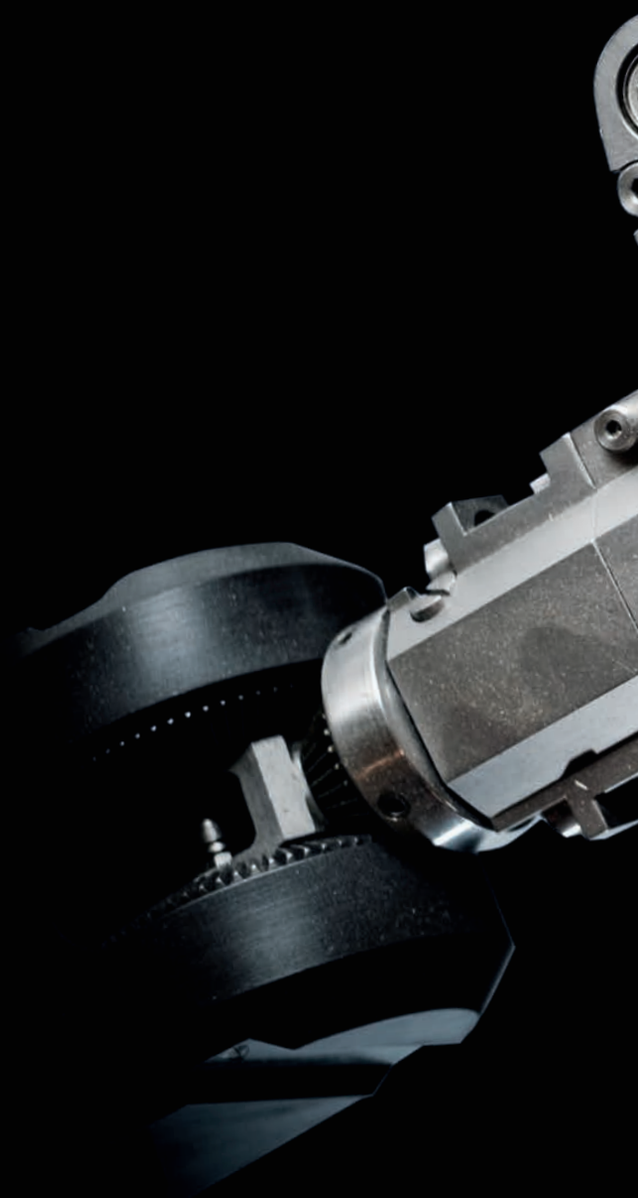
w/c 29 June 2015: Sellafield Ltd Graduate Scheme 2016 advert launched on Sellafield Ltd website

w/c 28 September 2015: Sellafield Ltd Industrial Placement and Summer Placement 2016 launched on Sellafield Ltd website

October/November 2015: Assessment Centres take place for 2016 intake

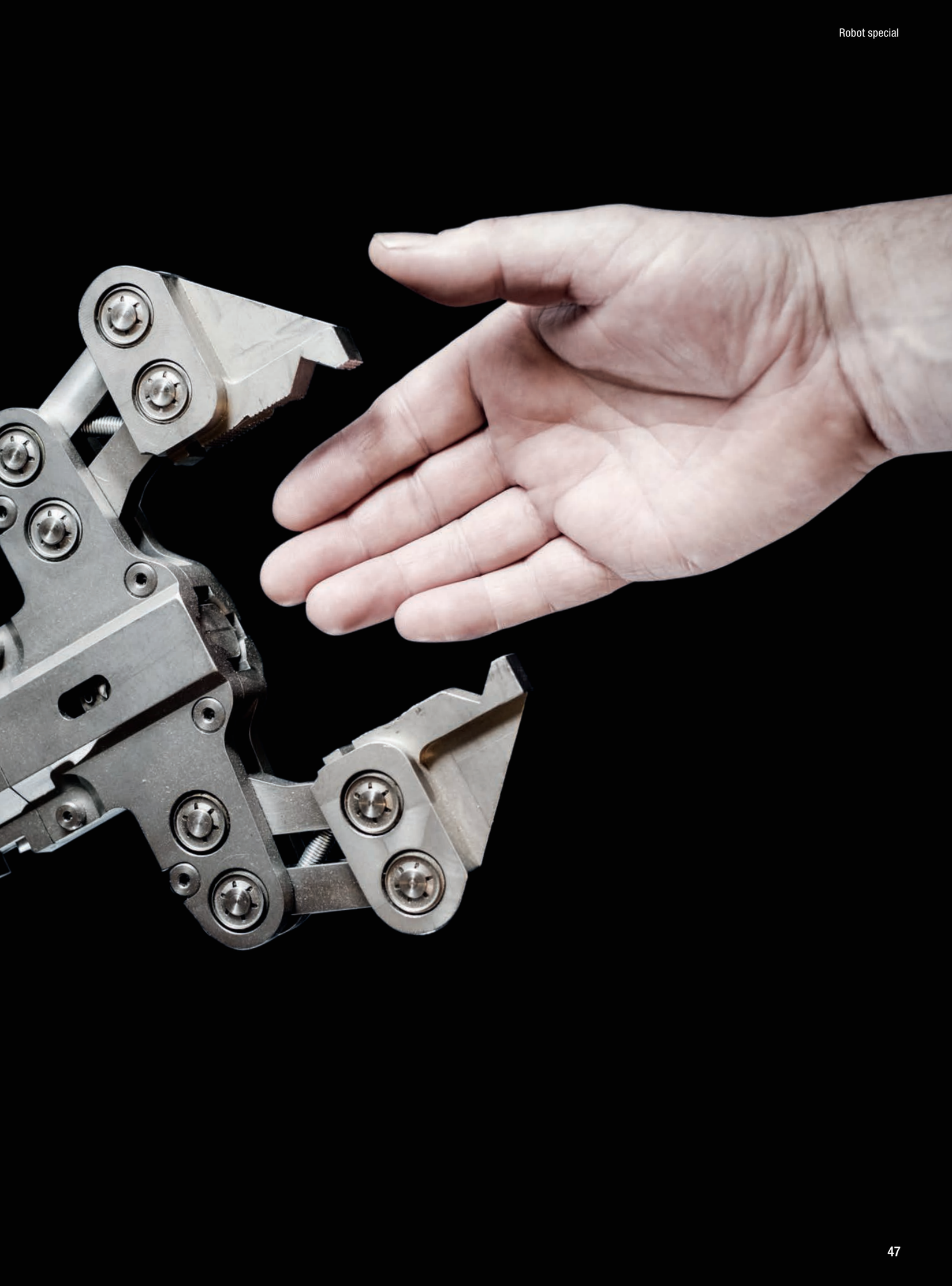
Apply online now: careers.sellafieldsite.co.uk/graduates/

INTRODUCING OUR NEW RECRUITS

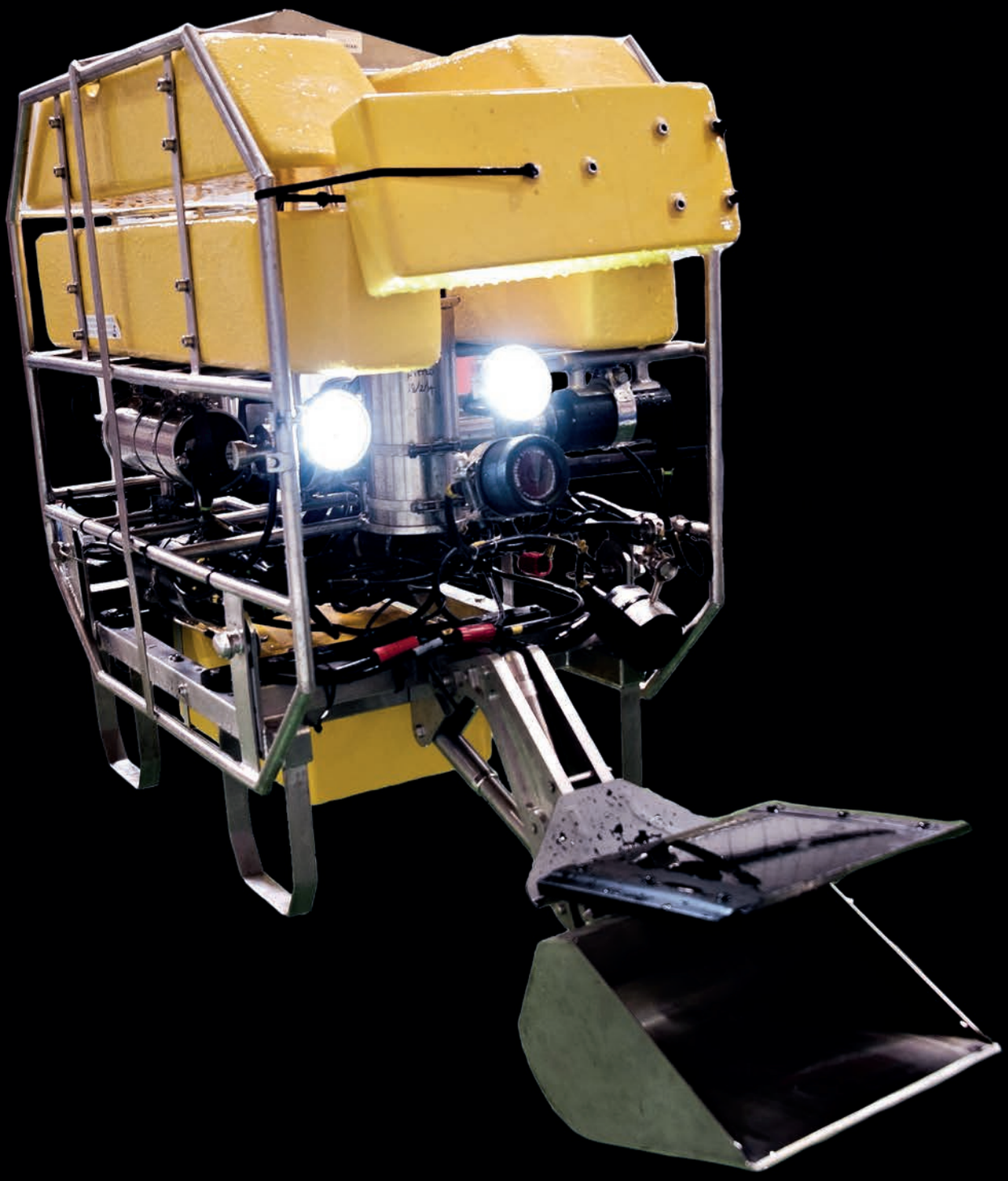


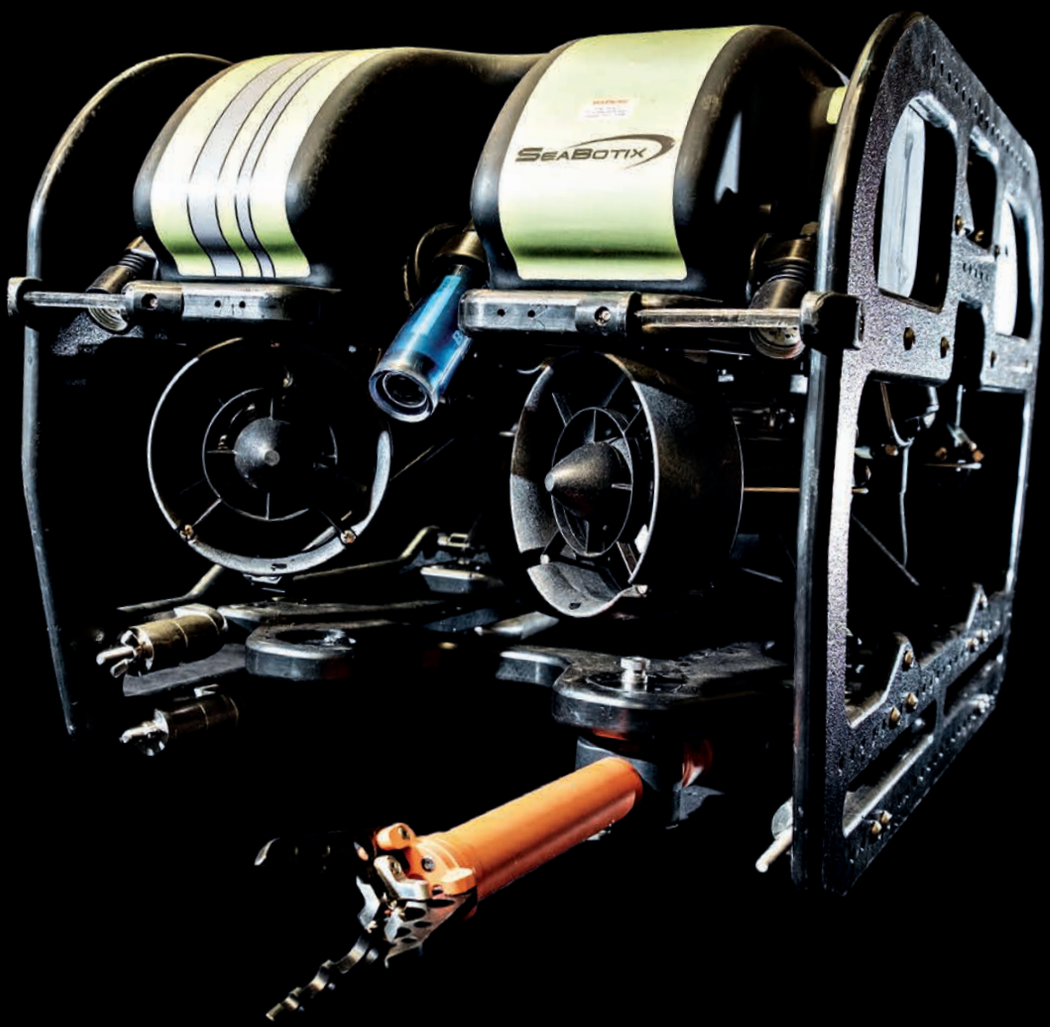
For decades man and machine have worked together at Sellafield.

Today, their ability to support our clean-up mission by entering buildings that are too radioactive for human entry makes our newest robots an essential part of the team.

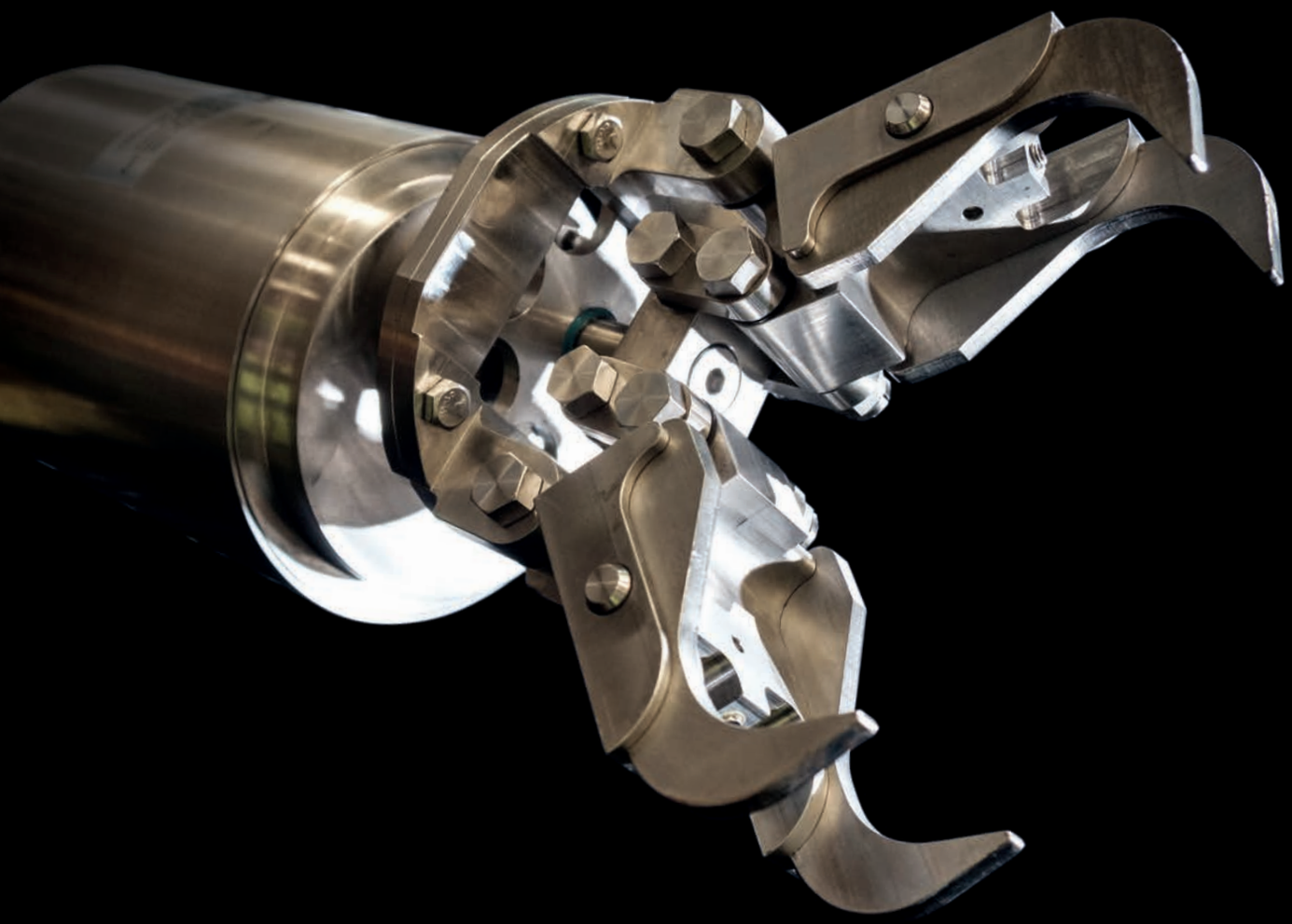


Mini submarines have been fitted with scoops (this page), cameras (opposite page) and other tools. Their role has evolved from being used to look inside nuclear buildings to being at the front line in the retrieval of fuel and sludge from legacy storage ponds.





Our engineers, operators and supply chain have adapted off-the-shelf robots, like these mini submarines, adding tools and cameras and tailoring them for specific jobs.

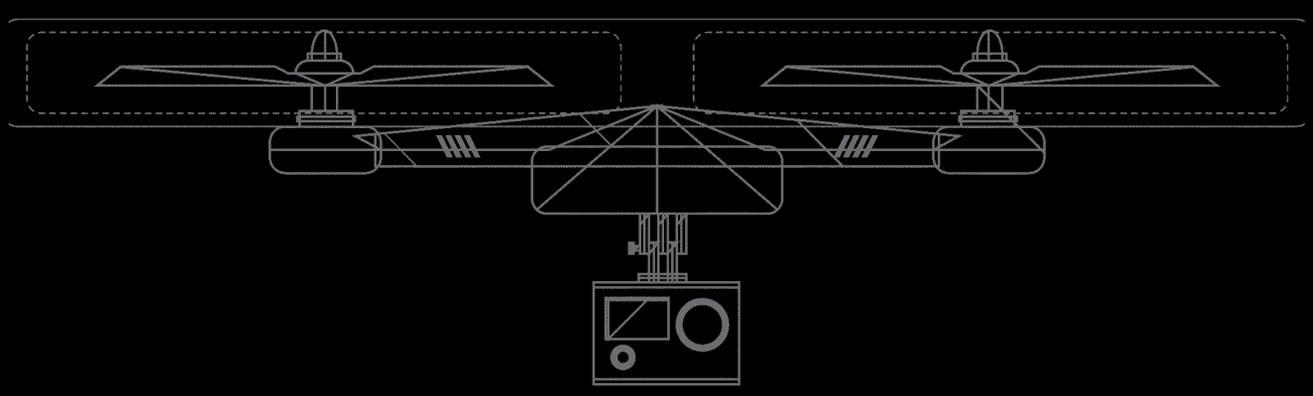


Traditionally organisations replace humans with machines in order to improve efficiency or reduce costs. At Sellafield they work hand-in-hand.

Machines are operated by our employees who deploy them to investigate radioactive areas, to retrieve nuclear waste and sludge, and to move nuclear materials. Robotic arms at Sellafield are similar in design to those used in the automotive construction industries.

Where innovation takes flight

Innovation is a human response to a problem or challenge – and challenges don't come much more difficult than those faced at the Sellafield nuclear site.



The urgency of high hazard reduction at Sellafield is creating a very valuable by-product – that being the increasing speed at which innovation and technology is being developed to tackle it.

The site is home to historical nuclear waste from the cold war era and removing these hazards quickly and safely is a national priority – which is why West Cumbria is becoming the test bed for some of the most revolutionary nuclear innovations on the planet.

Solutions are being pioneered and accelerated to tackle some of the most complicated decommissioning challenges in the world, much faster than they would if the hazards didn't exist.

Cutting-edge remote technology is just one of the solutions emerging.

Introducing Project RISER

On a 60-year-old nuclear site, the balance between an unwavering focus on safety and the urgency of the clean-up is ever present. So how do you get workers inside potentially dangerous plants which haven't been accessed in 50 years, to decommission them?

The answer in 2015 is – maybe you don't need to.

Unmanned aerial vehicles (UAVs) are beginning to carry out vital work in hazardous environments where safety conscious Sellafield workers can't get to, to help clean up the UK's nuclear legacy.

Project RISER (Remote Intelligence Survey Equipment for Radiation) is a collaborative initiative between a small Cumbrian company, Createc, and a Bedfordshire based aerial specialist, Blue Bear Systems Research.

The RISER is an electrically powered quad-copter that can perform a function unlike any other in the world. It has been specially developed to simultaneously laser scan an environment and characterise radiation within it.

It generates an accurate 3D virtual model of the environment (which others of its kind can do), but its unique selling point is that it can overlay that model with accurate radiometric data. No other unmanned aircraft system can perform this function.

Before it is switched on the RISER knows nothing at all about its location and environment.

The technical maturity of this kit has the potential to transform the way data relating to radiation and hazard is gathered at the Sellafield nuclear site, and across the globe.

Driven by an Xbox type controller, it can give us detailed information about areas where it would be extremely difficult, or even impossible, for humans to access safely.

Createc is based just 20 miles up the road from the nuclear site and they developed the N-Visage™ radiation mapping software that produces an accurate 3D, high-definition picture of contamination distribution, quickly and safely.

The Blue Bear Quadcopter's flight management system, the SNAP® autopilot, make it completely autonomous using simultaneous location mapping.

The first ever test of the RISER in a radioactive environment has taken place inside the iconic high Windscale pile chimney on the site and early results show that the sky is the limit when it comes to remote technology. ■

Nestled in the heart of Whitehaven, Albion Square has been home to one thousand Sellafield Ltd workers for a year…

Off-site moves...

are good for Sellafield and the community

The move has been heralded by businesses, workers and local stakeholders as a positive one

ALBION SQUARE

Moving some of our people into the local town doesn't just make business sense for Sellafield Ltd, but also benefits our communities as well.

Sellafield Ltd is committed to reducing the number of employees that are located on the main Sellafield site. This is for a number of reasons, including safety, security and efficiency; but such changes will also help reduce congestion at the times when people travel to and from work.

There are many Sellafield Ltd employees who need to be based on the Sellafield site, either because their role is important to the ongoing operation of our plants, they are working hands-on in construction or decommissioning projects, or because their role involves regular access to our on-site facilities.

However, a lot of other employees, such as those in office-based roles, does not need to be based there. Given that the Sellafield site is set to become one of the largest construction sites in Europe, and space is of a premium, it makes sound business sense to relocate those who do not need to be based there.

In actual fact, we've been relocating people from the site for almost ten years – with employees based at the Westlakes Science and Technology Park, in Workington and Whitehaven, alongside our offices in Risley, near Warrington.

The most recent move, to Albion Square (and the Copeland Centre) in Whitehaven, is the first time we have moved into a town centre, and despite fears surrounding the ability of the transport infrastructure to cope, the move has been heralded by businesses, workers and local stakeholders as an positive one.

Businesses in Whitehaven town centre, fighting back after the economic downturn, have reported an increase in trade since the complex opened. B.Kinsella and Sons, greengrocers, is one such business. Proprietor Kenneth Kinsella says, "We've noticed an increase in the number of customers calling into the shop, particularly in their lunch hour. Mixed fruit pots are proving really popular and there is also a lot of interest in the larger mixed fruit and vegetable hampers we offer."

Other town centre businesses have given similar feedback. Gail Hammell, the owner of Rose Budz florists said "This year, Valentine's Day was one of the busiest we've had in many years. In fact, we were that busy we sold out a day early and had to double our order from our wholesalers. Albion Square has been a fantastic boost for Whitehaven town centre."

Even high street chains have noticed the increase in trade with one retailer telling us that their management had been curious as to what had led to the uplift.

Employees are also benefitting from the chance to use their lunch breaks more productively. Vanessa Haywood, who is now based at Albion Square said, "It's fantastic to be able to nip into the town to visit the bank and the Post Office. But even more than that, it's great to be able to visit our independent traders I never got the chance to when I was based on the Sellafield site."

As a member of Britain's Energy Coast, Copeland Borough Council was one of the partners who pushed hard for the development – recognising that it would deliver for the company and the town. The two buildings that make up the Albion Square complex are located on the site of a former scrapyard and nearby derelict sites, and the iconic building has transformed what was once seen as a blot on the landscape.

Pat Graham, Copeland Borough Council's Director of Economic Growth said, "We fought long and hard for Albion Square – we knew how important it was for Sellafield Ltd to free up

"We fought long and hard for Albion Square – we knew how important it was for Sellafield Ltd to free up space on site for some of their major projects and just what a boost it would be for the town."

Pat Graham, Copeland Borough Council

space on site for some of their major projects and just what a boost it would be for the town, both economically and in terms of physical regeneration.

"Copeland, along with partners, are actively working to create further off site development opportunities, and we know this is something the company is considering. We now have a visible and proven track record of working together and should build on this success."

As Pat identifies, we do want to move more of our teams from site, if they do not need to be there, and are exploring, with our partners the best way to do this. Relocating employees and teams to a more suitable location not only helps the company to deliver safe, secure site stewardship but also ensures that we can speed up the clean-up of the Sellafield site – which is our number one priority.

It's great to be able to visit our independent traders, I never got the chance to when based on the Sellafield site.

Another notable off-site move has seen us launch the Sellafield Story exhibition in Whitehaven's popular Beacon museum – a move which secured the future of the facility following local government funding cuts. Visitors can now find an interactive Sellafield exhibition on the second floor of the museum. This tells the story of Sellafield from its early days as a munitions factory to power generation and fuel reprocessing, right through to the current focus on decommissioning, and complements the other floors of the museum which tell the wider story of Copeland.

As the Beacon exhibition shows, throughout its history, the Sellafield site has changed – and this will continue long into the future, as a century of work to decommission the site moves forward apace. This work is both challenging and ground breaking. In fact, we don't yet know what lots of it will look like.

However, what we do know is that we will need as much space as possible on the 6km^2 site; and that the best way to achieve this is to move those who don't need to be there, to another location.

As we've heard, this can only mean good things for the company, our workforce and the community. ■

"HOW CAN WE ATTRACT YOUNG PEOPLE TO THE NUCLEAR INDUSTRY?"

HERE IS WHAT YOU HAD TO SAY:

A seemingly simple question, with a potentially very complex answer. "Young people" is of course a very broad categorisation – in reality it covers a huge range of interests, motivations, circumstances, aspirations, knowledge and dreams. At Lakes College we have direct experience with thousands of young people every year, and each year brings a new mix of individuals with their own sense of direction and potential. Some have yet to develop an idea about what they want to do in life, whereas others have a clear route already mapped out; some are blissfully unaware of career opportunities while others know exactly what they need to do in order to progress to their goal; some are keen to live locally whilst others want to explore the wider world; some seek apprenticeships and a technical education, whereas others aim towards academic studies.

Having said that, one key issue that does become apparent, no matter where individuals are in their development and progression, is that there is a general lack of understanding about the nuclear industry, and careers within the industry specifically. Similarly, the international nature of the nuclear world is little understood by and large, and the opportunities for developing a career in a dynamic global market rarely known.

In light of all this, my suggestions for attracting more young people into the nuclear industry include: dispel common myths and make the nuclear industry interesting and accessible to young people; provide clear job profiles and descriptions across the whole range of roles that exist and make them readily available; show the massive range of job types that can be included in "nuclear" and what the roles entail; describe clear career pathways and routes into roles, and how people can develop themselves if they wish within career families and ladders; re-enforce the pioneering science aspects and the creativity and ingenuity that is prevalent in so much of the industry; and emphasise the global nature and the opportunities that exist.

Money and security are important factors to many – remind people that this is a sector which can offer well remunerated posts, progression to the top, and high levels of job security, and is relevant to them.

Presentation and communication needs to be fresh, modern, and engaging, and something that young people want to engage in, and are not in the least patronising! Supporting events then need to be fun, interactive, practical, on the road and dispel those myths that can unintentionally make nuclear inaccessible to many.

Chris Natress
Principal at
Lakes College

Sarah Purdham
Managing Director, Prima Uno

I think we need to look at lessons learnt from other industries and countries about how others make other sectors look attractive. A majority of other areas of the UK, together with the European Commission, have launched various initiatives to attract young people to study STEM subjects. One objective is to increase young people's interest in technical studies beginning at both primary and secondary school levels.

We offer work experience placements to school leavers which touches on multiple sectors to give students a taste of working life and career opportunities.

At Prima Uno we want our younger staff to be kept interested and enjoy coming into work. We highlight core competencies and expectations of their roles but also enlist them with a mentor so they can discuss the pathway our top consultants chose.

Derek Waugh
Project Director,
Jacobs Engineering

The UK is entering a new stage in its nuclear history with significant investment in the sector over the next decade. At Jacobs, we are very focused on developing the important future skills base particularly through our graduates, technicians, and apprentices.

The nuclear industry has a great opportunity to help these young people, and their parents, think early enough at school about the many subject routes young people can take that are relevant to a huge variety of careers in the nuclear industry.

At Jacobs, we run an engaging programme of activities for children at all key stages to encourage them to get hands on with topics and find out what really interests them. Whether it's work experience, engineering fun days, or 'after schools', we have lots of activities to bring their learning in physics, design, maths, technology and more alive.

I believe the initial attraction to the industry is the diversity and availability of jobs and apprenticeships, many aimed at recruiting prospective youngsters. The industry itself is consistently accessible for young people throughout the county yet is also a prominent, recurring topic we have been brought up to be completely aware of.

I believe the nuclear industry is an attractive prospect to young people due to the vision it provides; the chance to aid reputable companies, alongside the opportunity to further our own career ambitions.

It provides not only a door into a world of opportunity but, a fulfilling vision that inspires young people to want to be a part of it.

Flo Hanlon
Dream placement
student at Sellafield

Behind the scenes: Inside Sellafield

We spent over two weeks on the site and everyday I saw something that made me go 'wow'

For the community in West Cumbria, hosting the most complex nuclear site in Europe – perhaps even the world – is something they've grown used to.

Be it through public engagement meetings, local media stories or – most likely – either working there or having a friend or relative who does, local people have gained an understanding of the site's rich history, at the centre of the global nuclear industry since that industry was born in the 1940s.

But for the rest of the UK, Sellafield remains a mystery. An often maligned name that is neither understood nor completely trusted.

Or at least it did – until Sellafield Ltd invited the BBC to go behind the razor-wire fence and tell the world the really story, Inside Sellafield.

Broadcast in August to hundreds of thousands of people across the UK, and with a potential future audience of millions in other territories around the world, Inside Sellafield tells the story of the UK's nuclear industry through the prism of Sellafield, the nuclear pioneer.

It was presented by Professor Jim Al-Khalili, an acclaimed author and trusted broadcaster who is also a theoretical physicist at the University of Surrey. Jim and a team of producers, cameramen and directors spent weeks at the site, learning about it in intricate detail.

The documentary dispelled myths, explored science and confronted history in glorious high definition, but what looked slick on screen was the result of months of planning, production and patience.

The project was over two years in the making – requiring government and regulatory approval before it could even be begin. So highly guarded is the security of the site that each member of the filming crew, including Prof Al-Khalili, had to submit to intensive background screening before they could be granted access.

The result was an unprecedented level of access, which made for a great documentary.

Prof Al-Khalili said: "I have always been fascinated by Sellafield – it was a place I always wanted to visit and to better understand.

"We spent over two weeks on the site and every day I saw something that made me go 'wow'. It was an amazing experience, and I am very proud of the documentary we made."

The programme came about after a chance conversation between a member of Sellafield Ltd's communications team and an independent television producer.

Senior communications manager Karl Connor, explained: "When we would engage with people, particularly London based journalists, and tell them about the site and about the history of the place, you often find yourself quoting facts and figures which they simply refused to believe.

"I'd quote things like a Sellafield worker gets a lower radiation dose in a year than a pilot gets, or mention that if you took our radiation monitors – the ones which rarely pick up anything above background here at all – to Grand Central Station in New York they'd go off the scale because of the granite there.

"Locally people get it, but we found that nationally the message is still difficult to land. If you mentioned Sellafield in national media space people instantly ask about leaks – even though the last one here with any off site consequence was over 30 years ago."

Karl and his team had been trying to think of a way to get some of that information out there, to dispel some of the myths and mystery, when he took a call from a Mark Tattersall, a producer from an independent film company called Artlab Films.

The pair met and each was impressed with the other's commitment to finding a way to work together.

Karl said: "Making a programme like this was always going to be difficult. The project represented a risk, not least from a security perspective in terms of granting access to the site to a film crew, over a prolonged period of time.

"Mark had just returned to the UK from making a documentary for ITV inside Camp Bastion in Afghanistan – so I knew he'd understand those sensitivities. We were very honest with each other about what was achievable and I was clear from the start that,

>

"I have always been fascinated by Sellafield – it was a place I always wanted to visit and to better understand."

Prof Al-Khalili

How many crew members you had and what their roles were:

BBC Crew

1 EXECUTIVE PRODUCER
1 PRODUCER/DIRECTOR
1 PRESENTER
1 LIGHTING CAMERAMAN
1 ASSISTANT PRODUCER
1 CAMERA ASSISTANT

IN TOTAL (BBC and Sellafield Ltd), more than 40 people made the programme

Kit

10 CAMERAS
4 MICROPHONES
HUNDREDS OF YARDS OF CABLING
8 TB OF HARD DRIVES
20 MEMORY CARDS

Hours of footage:
Approximately 65 hours

Length of time to produce (concept to broadcast):
Almost two years

"We wanted to offer the general public some context, so that the next time they read about Sellafield they know a bit more"

even though I thought a TV show was a great idea, there might well be some senior people, either within Sellafield Ltd, the NDA, or even DECC or one of our regulators who might, for very good reason, not approve."

Months of meetings and workshops followed. Hurdles were presented, a very short pilot was even made, but it looked like nothing would come of the idea.

Mark said: "At one stage we thought we had reached the end of the line. Our original idea had been to tell the story of the site through the people who work there – to spend the best part of a year working from a base at Sellafield, following different workers as they went about their day to day routines. The BBC, and others, were very interested in commissioning a show like that, on the back of some successful ones that had been made in hotels and other industries."

But the project, at that stage, could not get approval. Karl explained: "Our collective view was that a 'fly-on-the-wall' type show wasn't the right way to go. There were two main issues – the security aspect of having this crew on site for so long was an obvious one, but we also had to consider the time and resource we would have had to dedicate to making a programme like that, and wether it was the best use of taxpayers' money.

"The overarching principle of communications at Sellafield is that we are open and transparent, and that still stood. That's a stance which is supported by the NDA and by DECC – we all wanted to find a way to make something work."

In collaboration with the NDA and following a workshop with DECC, Sellafield Ltd went back to Artlab with a proposal for a science based programme, tackling the history of the nuclear industry at Sellafield and shot over a much shorter time period. Mark pitched the idea to the BBC – who loved it.

Mark said: "What the show became was a much more reasoned and adult discussion about the history of the industry in the UK, told from the site which has been at the heart of it. With hindsight that had always been the right thing to do. The story is almost too complex to tell on BBC 2 or in half hour segments on satellite TV. When we talked to the BBC again we agreed that a BBC Four documentary would be the perfect place to tell this fascinating story."

That wasn't the end of the process – vetting had to be carried out and filming dates agreed and managed – not to mention a complex contractual agreement covering everything from when and where meals would be provided to rights to use archive footage. But after so much preparation and planning the filming passed off without any major issues.

Karl said: "When I saw the genuine look of wonder on Jim's face each time we took him into somewhere he hadn't been before, we knew we were on to a winner with someone who really understood what we wanted to get across in the show.

"Of course, the BBC retained editorial control, and they covered the history of the site 'warts and all', but without that the programme would have lacked authenticity, and we know that there is far more for the site to be proud about over the past 60 years then there is for us to regret.

"We wanted to offer the general public some context, so that the next time they read about Sellafield they know a bit more. We hope the programme dispelled a few myths, not least the one that the site is secretive or inaccessible.

"Of course, the average member of the public can't come on a day trip – but we do lots to make information about the site accessible, releasing reports and keeping people up to date. MPs and key stakeholders also come to visit frequently.

"Looking at the initial viewing figures, we believe that the show achieved our aims." ■

More than 680,000 viewers tuned in to watch the first broadcast of Inside Sellafield on BBC4 on Monday 10th August

Have your say

There are many ways to get involved and have your say about the work being done at Sellafield

NDA Draft Strategy

On 8 September, the NDA will be publishing its draft Strategy for consultation. This will be the third iteration of NDA Strategy with previous strategies having been published in 2006 and 2011. The draft Strategy covers topics ranging from Integrated Waste Management and Nuclear Materials to Supply Chain and Socio-economics. The NDA is keen to receive your views and would welcome your comments when the document is published.

You can follow us on LinkedIn and Twitter and don't forget to sign up to our e-bulletin

www.nda.gov.uk

NDA
Nuclear
Decommissioning
Authority

West Cumbria Sites Stakeholder Group

Get involved

The West Cumbria Sites Stakeholder Group is an independent body that scrutinises the work done at nuclear sites in the West Cumbria area

Upcoming meetings and events

27 **August 2015 – 1300 - 1600**
Enablers Working Group
Yottenfews Farmhouse

14 **September 2015 – 1400-1615**
Emergency Planning Working Group
Cleator Moor Civic and Masonic Centre

16 **September 2015 – 1300-1500**
Risk and Hazard Reduction and Waste Management Working Group
Cleator Moor Civic and Masonic Centre

20 **October 2015 – 1300-1500**
Spent Fuel Management and Nuclear Materials Working Group
Cleator Moor Civic and Masonic Centre

21 **October 2015 – 1400-1600**
Low Level Waste Working Group
Drigg and Carleton Village Hall

For more information visit

www.wcssg.co.uk

"I was told that what I wanted to do was a man's job, and I should be training to be a hairdresser instead. Look at me now."

Emma Hanley
Electrical and Instrumentation (E&I) craftsperson

After leaving school at 18, Emma thought she had her career path mapped out. She had planned to study food and nutrition at university but after reconsidering her options, she chose an E&I apprenticeship with Sellafield Ltd (through local training provider Gen2).

Four years later and now a fully qualified E&I craftsperson at Sellafield, Emma, aged 22, has gone from strength to strength in her career. Having recently been named by the Engineering Construction Industry Training Board (ECITB) the North West Apprentice of the Year and then the overall National Apprentice of the Year, Emma has proven a change of heart can lead to great things.

We sat down with Emma to talk about her success, why she's an inspiration to other apprentices and her hopes for the future…

Why did you choose an apprenticeship over university in the end?

Originally I wanted to go to university to study food and nutrition but then when I reached sixth form I found that I started to want something more for my future career. I didn't want to go to university, come away with debt and no job security. I had friends who were training at Gen2, getting qualifications and on-the-job training with guaranteed jobs afterwards, so when I left school in 2010 I knew an apprenticeship was the route to choose.

I went to college for a year to gain an electrical NVQ and then I successfully gained a place on the Sellafield Ltd E&I apprenticeship. When I first started my training I hated it. I thought; what am I doing here? There were only two females out of 70 students on my course so I felt out of my depth, but as it went on I got used to working within a male dominated environment.

Why did you feel out of your depth?

It was a bit daunting being one of the only girls on the course. I felt the boys were more hands-on and physically stronger so they would be better at the practical work, but I soon realised that I could do it, I just didn't know my own ability. I gradually gained more confidence as the course went on and when I doubted myself I would take a step back and say to myself: no, I'm going to do this and prove to everyone, I am a woman and I can do it!

The other girl on my college course almost quit too but after my wobble, I persuaded her not to. She realised what a huge opportunity she would be throwing away, and she's now gone on to be a medical engineer at the local hospital.

Did you experience negative stereotypes?

Yes there were definitely negative stereotypes about women working in industry when I first began my apprenticeship. I have one clear memory of going to the care home where my mum worked and being asked by one of the elderly residents what I did for a job. When I told them I was training to be an electrician they were shocked. I was told that it was a 'man's job' and I should be training to be a hairdresser instead. Thankfully I didn't take that advice and I think this kind of negative image of women working in 'men's jobs' is becoming obsolete due to greater awareness and opportunities for females in the industry.

Why did you choose a career as an E&I craftsperson in the nuclear industry?

I love the challenges I get working at Sellafield. E&I in the nuclear industry is completely different and presents a unique set of technical and engineering challenges you wouldn't experience in other sectors. It can be difficult to overcome those challenges but when you do, you feel accomplished and proud of yourself.

We currently have two external electricians working in my team and they have commented how different our type of work is compared to other industries they have worked in so I'm helping them get to grips with the new challenges. To think, I'm only 22 and I'm training up people who are twice my age!

Would you say it is important that you help other people with their training?

Yes I try to inspire and motivate other people. My E&I apprentice cohort were the first year to do the ECITB qualification so we struggled not having any older apprentices who could act as mentors. Now I have that experience and knowledge I try to help the younger E&I apprentices through their training and careers as much as I can.

We currently have a female apprentice working in my team; when she found out I had won the apprentice of the year award she was over the moon for me. It has motivated her to excel and achieve similar things in her career. It's nice to think I'm an inspiration to her and I hope I can help shape her to become the next apprentice of the year!

Do you have any advice for other young women who are interested in a career in industry?

Through my role as a science, technology, engineering and mathematics (STEM) ambassador, I talk to lots of young school girls who are apprehensive about working in what they perceive to be a male dominated industry. They have this idea, the same one I have the start of my training, they won't succeed because they're a girl. I tell them, if you're interested and want a career that is equally challenging and rewarding, you have to give it a go. Look at me, I didn't enjoy it at first and now I love my job! Hopefully I can make them realise they can be equal to their male counterparts and consider studying or working in a STEM industry.

Well done on winning the National Apprentice of the Year award – how does it feel to be recognised as the best in the country?

I'm delighted to have won the award. To have been recognised in a category of such high standard is an accomplishment in itself. I feel all the hard work and dedication I put in during my apprenticeship with Sellafield Ltd has really paid off and helped me stand out to the judges.

I now want to keep progressing in my career and I'm about to embark on the company's plant engineering scheme which will allow me to gain further qualifications. ■

G6

Determination + Collaboration = Innovation

KEY PLAYERS IN THE CLEAN-UP MISSION AT SELLAFIELD ARE PIONEERING A NEW WAY OF WORKING AND DELIVERING SIGNIFICANT RESULTS

A collaborative approach to tackling the challenges on the site is giving a group of key decision makers a fresh perspective on managing the nuclear legacy.

The group – made up of the Department of Energy and Climate Change (DECC), the Shareholder Executive (ShEx), the Office for Nuclear Regulation (ONR), the Environment Agency (EA), the Nuclear Decommissioning Authority (NDA) and Sellafield Ltd – has a common interest in driving progress on the site but each organisation has historically focused on its own individual priorities.

This has changed with the acknowledgement that closer collaboration between decision makers could deliver mutually beneficial results. Although robust regulatory discipline remains central to the work at Sellafield, each organisation has been working to better align its strategic and tactical approach to priority programmes so it can support them more effectively.

Given the age and condition of many of the facilities at Sellafield, reducing the risk and hazard is an urgent national priority. The nature of the work is such that a strong safety and security culture will always be essential but this can often lead to fixed ideas about the way things have to be done. The role of the multi-discipline group is to challenge this mind-set and examine new ways of doing things that remove barriers and encourage progress.

Early wins for the group include the contribution it made to the achievement of a major milestone for Sellafield in removing the first radioactive sludge from one of the most hazardous nuclear plants in Europe, the First Generation Magnox Storage Pond in March 2015.

> "We have frank and open discussions, working collectively to remove blockers and make progress. It's about identifying how we can do things differently, challenging the way things are and then doing things better."
>
> Michael Finnerty,
> Superintending Inspector, ONR

The Pond – which dates back to the 1950s and was constructed to store, cool and prepare used Magnox fuel for recycling into new fuel – urgently needs to be emptied of 1,500 cubic metres of radioactive sludge; the equivalent of more than half an Olympic sized swimming pool. Sellafield has been preparing to remove this sludge for a number of years but needed to construct a sludge packaging plant close to the pond before any removals were possible. This in itself was incredibly difficult as the site is heavily congested with a number of still-operational plants located nearby.

Effective collaboration between Sellafield Ltd, ONR and EA ensured that the sludge transfer plans were scrutinised appropriately in advance and that any potential blockers to the start of active operations were anticipated and removed wherever possible. As a direct result of this closer and smarter working the group was able to reduce delays and bring the start date for sludge transfers forward.

The symbolic and practical significance of these retrievals is enormous as it demonstrates a key step forward in the clean-up mission at Sellafield and will allow the remaining radioactive inventory to be progressively removed; thereby reducing the hazard posed by the facility.

This is just one example of how a coordinated approach is achieving dramatic results but there are many more. As the group turns its attention to other projects, processes and procedures the potential rewards are huge… ■

NEXT ISSUE

Sellafield

Issue 02
November 2015

MEET:
Sue Hayman, MP

DISCOVER:
The Pile Fuel Storage Pond

CELEBRATE:
Business Excellence

DEFENCE IN DEPTH: Keeping Sellafield secure

Sellafield Ltd

Available November 2015

West Cumbria Works Launch

BREAKING DOWN BARRIERS TO EMPLOYMENT

A new employment service to help break down the barriers preventing some West Cumbrians from working at Sellafield was launched in July.

West Cumbria Works, initiated by Sellafield Ltd, will help the unemployed and 'underemployed' in Copeland and Allerdale acquire the skills, behaviours and experience required to work for Sellafield Ltd and companies in its supply chain.

It works as a jobs brokerage service, matching job seekers to suitable current vacancies. And if there are any barriers which would prevent those people from successfully applying for their matched job, help can be given to overcome those barriers.

Barriers can include lack of qualifications, shortage of experience, transport issues or poor employability skills like interview technique or filling out application forms.

The service is initially being delivered by Capita and Mace on behalf of Sellafield Ltd and is supported by Jobcentre Plus. Job hunters can sign up for the service online or in person at a Jobcentre Plus.

Businesses that will use West Cumbria Works to recruit include: Doosan Babcock, Amec, Balfour Beatty, Cavendish Nuclear, Hertel, Ansaldo NES, Mitie, Areva, Jacobs, Shepley, Energy Solutions and Costain.

West Cumbria WORKS

Launching the brokerage, George Beveridge, deputy managing director of Sellafield Ltd, said: "We want as many west Cumbrians as possible to benefit from the unique opportunities Sellafield provides.

"But we know there are barriers to some people being able to successfully apply for jobs that match their talents.

"To have people unable to secure jobs in which they would thrive is not good for them or for the community and West Cumbria Works is a great way for us to help solve the issue.

"It will help us deliver our mission at Sellafield by allowing ourselves and companies in our supply chain access to a wider pool of talent.

"And the community benefits by an improvement in the local skills base, making west Cumbria more attractive to employers."

Steve Johnson, Cumbria and Lancashire District Manager for Jobcentre Plus, said: "Jobcentre Plus is delighted to be supporting West Cumbria Works.

"This unique scheme is directly targeted at those who need our help most.

"West Cumbria is unique in terms of the tremendous range of high quality opportunities available at Sellafield and West Cumbria Works will help ensure as many local people are able to benefit."

For more information, or to view opportunities, visit: www.westcumbriaworks.co.uk

How it works

West Cumbria Works will act as an 'arms-length' delivery vehicle on behalf of Sellafield Ltd and our supply chain, with both physical and online presence. We hope that this will allow maximum opportunity for local people to register their interest, either through the website or by dropping into the office in Whitehaven.

The core functions of the job brokerage will be to:

- Create personal case profiles for local people with suitable skills/experience to ensure they are work ready;
- Provide employability training, skills development and job search skills such as CV writing and job applications;
- Work with local people to provide intensive support to address or overcome barriers to employment;
- Support community partners by providing pathways to sustainable employment;
- Design and commission additional pre-employment support;
- Engage with Sellafield Ltd and our supply chain partners to provide work experience placements; and
- Match the right people to the right jobs and help people to access the training and skills needed. ■

Date:
30 July 2015

Location:
**Job Centre Plus,
Copeland Centre,
Whitehaven**

A warm welcome for West Cumbria Works

Traineeship launched

West Cumbria Works will be building on the success of previous ready to work programmes, with the launch of the first West Cumbria Works 12 week traineeship programme in September 2015 targeted at 16 to 24 year olds. The programme will be provided by Capita and will include six weeks of work experience in the Sellafield programme – either with Sellafield Ltd or our supply chain. While there is no guarantee of employment at the end of the programme, candidates will receive a job interview and feedback.

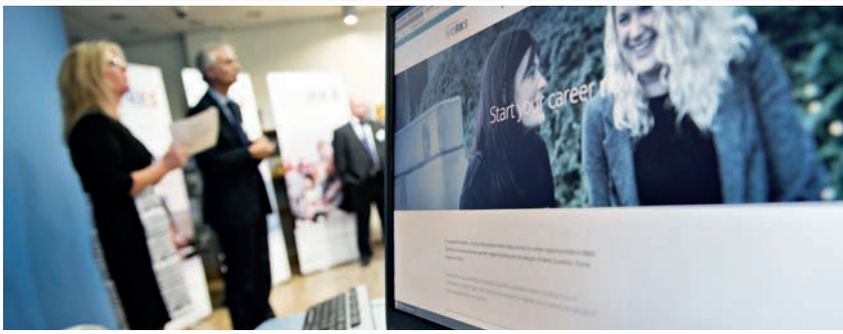
MIKE STARKIE,
MAYOR OF COPELAND

"I'm a great advocate of this programme and it was actually mentioned in my manifesto. I'm delighted to be here today for the launch and will follow the programmes progress very closely."

WCW Launch

RACHEL BEECH, BALFOUR BEATTY

"A really exciting opportunity for the Supply Chain to get involved with the workforce of tomorrow, not only in steering the next generation but giving the youth of today the experience of working that they so desperately need."



PAUL TOMLINSON, SELLAFIELD LTD

"I was actually involved in the first 'Ready for Work' scheme that Sellafield Ltd offered and very glad of the opportunities I received. I'm now 12 months into a full time job on the Sellafield site."

PHOTOGRAPHER
in residence

I approach photography at Sellafield as I would any other job, taking the best shot possible in whatever scenario I am in. It's all about finding the right angle to keep the viewer interested, either by creating a small story or using perspective. Sometimes odd angles or crops make a photo special and I love that there are endless possibilities for this at Sellafield.

Sellafield is an amazing site with so many different and brilliant people. I love getting to know them, their stories and capturing their skills and passion.

It's just a photo of a face – or is it? There is something more going on in the safety glasses. You see more people and buildings, adding depth and perspective to the image. It makes you think about where he is and what he is doing.

Thomas Skovsende

FIVE MINUTES WITH

Steve Jennings

One of the biggest changes that Sellafield Ltd has made in the past five years is our move to longer term strategic contracts with the supply chain in key delivery areas. Steve Jennings, Head of the Infrastructure Strategic Alliance, explained how the new approach is helping to support Sellafield's complex infrastructure needs.

What is a Collaborative procurement?

Collaborative procurement is about achieving value for money through partnership working. Industry has shown that success is more achievable when teams from the supply chain work together with the client, and that is what we are doing in the delivery of infrastructure services at Sellafield. We are bringing industry best practice to the challenge of improving the site's ageing infrastructure through the existing Sellafield Ltd capability, and Morgan Sindall and Arup expertise.

What are the benefits?

A truly collaborative procurement draws on the expertise from all delivery partners for a mutually beneficial objective. The key factor for me is alignment of objectives. Success for the supplier must be aligned to success for the client and vice versa. A key role for the client is to make sure this happens. Once achieved all parties' efforts are combined toward the end goal rather than pulling against each other, leading to faster delivery and better value.

What are you trying to achieve?

Our objectives are defined in five key business case objectives points:

1. To deliver the full scope of planned infrastructure projects and selected planned asset care tasks as defined by an agreed master plan and based on defined system requirements and outputs;
2. To provide a flexible and rapid response to additional unplanned project work as the contract programme progresses;
3. To achieve a significant improvement in schedule delivery for projects and related work against a 40% improvement target;
4. To achieve an incremental progressive improvement in cost savings year on year in the first five-year period towards a target of 25% net cost savings against the current project portfolio (2011 Performance Plan) and equivalent savings in the remainder of the full contract period (up to 15 years).
5. To achieve a rapid reduction in the business risk presented by infrastructure assets through capital program prioritisation and optimisation.

What benefits do private sector partners bring?

We are here to provide a site wide consistent approach to the delivery of infrastructure projects by engaging with capabilities in the supply chain and using our combined knowledge to ensure latest techniques and technology are applied.

Morgan Sindall and Arup complement the existing Sellafield Ltd infrastructure capability, by bringing a wealth of knowledge and best practice approaches from other complex industries outside of nuclear. Combined with the strong supply chain relationships they have developed, they are supporting a growing programme of infrastructure projects, and developing a master plan for all of our assets which is improving efficiencies in the way we deliver work and therefore value for money.

What are your highlights so far?

We have already made demonstrable progress against our business case objectives over the past 2 years; we have a number of projects which have significantly reduced risk (with the rate of return on risk reduction projects increasing fourfold) and we will continue to work towards our targets of operating 40% faster and 25% cheaper.

Reducing risk is our top priority, and we have completed a number of significant projects in particular: Off Site Pipeline, Temporary Vent Fan, Replacement Car Parks, Stack Strengthening, First Generation Magnox Storage Pond Accommodation, River Calder Foul Drain, Magnox Rail Barriers and Asset Care across all systems.

What is next?

Our main priorities are now focused on our 25% cost and 40% schedule targets by simplifying unnecessary nuclear processes, while still ensuring safety, to accelerate the programme and drive efficiencies. ■

Supply chain

Driving ambition in nuclear's Silicon Valley

CENTRE OF
NUCLEAR
EXCELLENCE

Whether you are a child interested in STEM, a nuclear pioneer looking for a unique and challenging career, an academic who wants to explore unchartered nuclear territories, or a Chief Executive looking for the perfect business location, the Centre of Nuclear Excellence has everything you are looking for... and more.

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The Sellafield Story

Hands-on activities and virtual reality tell the story of the most iconic nuclear site in the world. From its pioneering use of the atom to support national defence and building the world's first civil nuclear power station, to the clean-up challenges of today.

Explore the Sellafield Story at the Beacon Museum:
Tuesday to Sunday 10am-4:30pm.
Monday opening is restricted to Bank Holidays and school holidays.

**The Beacon, West Strand,
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