

ON THE LEVEL

Edition 20 June 2019

NEWS AND VIEWS FROM THE LLW REPOSITORY

Safe and Secure

Our legacy Plutonium Contaminated Materials Programme is coming to a close, boasting an outstanding safety performance



Above: flashback to September 2015, when the Decommissioning Programme was in full swing, and below, Carl Smith, who latterly headed the Programme.

LLWR's flagship Plutonium Contaminated Materials (PCM) programme is about to come to an end after six years without suffering a single serious accident.

Nothing is more important to the organisation than the safety of its workforce, and LLWR is proud that its focus has paid off.

"All that high-hazard work has been completed safely, over 400,000 man-hours at the work-face without a Lost Time Accident," said Carl Smith, Programme Delivery Manager.

"We have daily focus meetings looking at hazards and risks and a disciplined approach is instilled in the guys doing the work, who in any case are trained and experienced. Even though we have a schedule to meet, safety is paramount."

Senior managers carry out regular checks on all aspects of the programme and regular inspections are carried out by members of the LLWR Lead Team. The £100 million programme to decommission the remaining five magazines on Site was launched in 2013 and scheduled to take 10 years to complete, but when an

accelerated schedule was later adopted, the challenge for the team was to complete it much sooner, to enable demolition of the historic magazines to allow potential new developments on the Site. The programme is heading for completion little over six years after inception, with a saving to the UK taxpayer of around £20m.

"I'm ecstatic at what's been achieved," Carl added. "We've become a little family, but it's the nature of projects that they come to an end. I would like to thank all those involved in the project, without their efforts this would not have been possible."

A key ingredient of the programme's success has been the collaborative working between the NSG, Nuvia, PC Richardson and LLWR teams, plus a host of other sub-contractors.



Programme has a role for all



Working on the Decommissioning Programme does not suit everyone. It can be hot, uncomfortable work, with operators wearing protective suits and respirators, often in cramped spaces.

But Hannah Hughes, *left*, loves the job. She is a Health Physics Monitor, one of only two women to have worked on PCM.

She has spent 10 months as a member of the PCM team and is currently working on the final phase of the programme, involving removal of Magazine 9's ventilation system, checking radiation levels to keep her colleagues safe.

She also plays her part in moving clean metal to designated laydown areas.

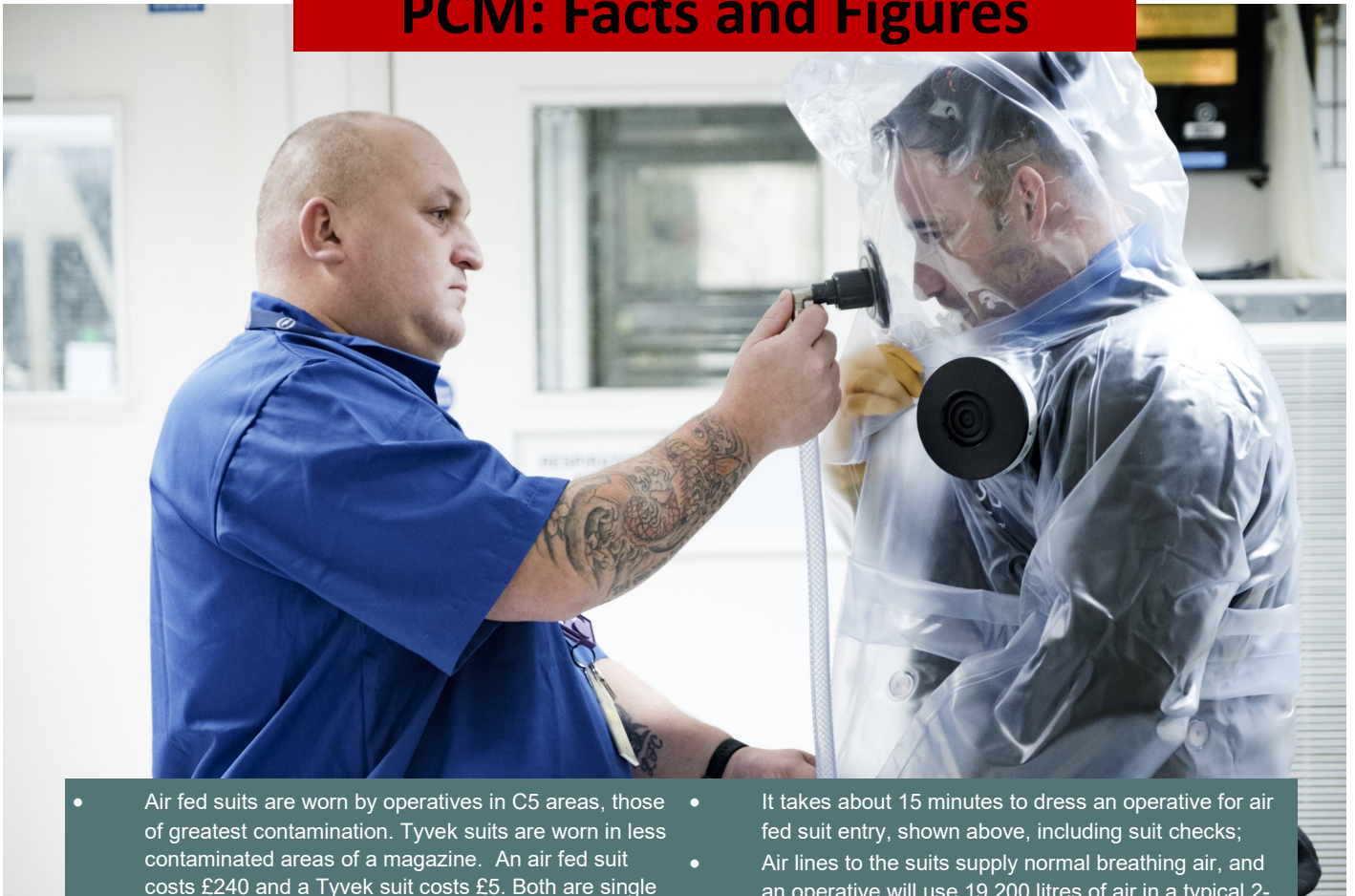
"We are a tight team who look out for each other," she said. "The lads are very gentlemanly and won't let me carry the heavy items, but I like to get stuck in. It's all about teamwork and they are a great crew. I like the banter."

LLWR is an industry leader in the employment of women, and after 8 years as a monitor she has seen signs that more are becoming involved in the role across the industry.

As the PCM Programme concludes, Hannah, from Wales, will move on.

"It's the contractor's lifestyle. The job ends and you move on to the next project," she said.

PCM: Facts and Figures



- Air fed suits are worn by operatives in C5 areas, those of greatest contamination. Tyvek suits are worn in less contaminated areas of a magazine. An air fed suit costs £240 and a Tyvek suit costs £5. Both are single use. More than 50,000 Tyvek/air fed suits have been used for entries over the 6-year programme;
- Operatives in C5 areas wear 3 pairs of rubber gloves, in addition to their air fed suit;
- 110,000 pairs of rubber gloves used in C5 entries;
- Around 100 pairs of cover shoes used daily;
- It takes about 15 minutes to dress an operative for air fed suit entry, shown above, including suit checks;
- Air lines to the suits supply normal breathing air, and an operative will use 19,200 litres of air in a typical 2-hour entry;
- Man-hours of physical work – over 400,000;
- Respirators used – more than 60,000;
- More than 130,000 sets of 'basics' clothing used;
- Over 500,000m of green tape used in C5 entries;
- Lost Time Accidents – ZERO.

One team, one mission

Teamwork has been integral to the PCM Decommissioning Programme's success.

NSG, one of the UK's largest decommissioning contractors, first came on board in 2011, two years later becoming full partners with LLWR.

The full-time relationship got off to a rocky start and initial progress was slow.

In response a team building session was held and a leadership group formed, comprising senior managers from LLWR and NSG.

Gareth Wilson, NSG Project Manager, *right*, said: "Rob Yetts and Carl Smith from LLWR worked hard to bring new people into the project team and all support functions became part of the delivery team, so everyone was committed to project delivery."

A project team was built comprising the different organisations involved – LLWR, NSG, Nuvia, PC Richardson, Atkins, Hertel and Studsvik.

Around 12 months in, the new approach



began to pay off and working on an accelerated schedule has seen almost four years and around £20m shaved from the original plan.

NSG also brought to bear its experience from working on other decommissioning projects.

For instance, when a huge stretch of concrete in one magazine had to be removed to allow access for

decontamination operations, 144 slabs each weighing around 300kg had to be cut away.

A Learning From Experience (LFE) exercise was carried out and a more efficient method developed, so when the same process was required in another magazine only 27 slabs had to be removed.

By drilling strategically-placed holes access was provided, saving time and money, and, crucially, reducing the hazard to operators.

Gareth said: "This has been NSG's biggest project in terms of man hours and total values, and it's certainly the best we've had in terms of contractor/client relationships.

"They have been nothing but positive. This has been a really good project with a large but close-knit team.

"It's a shame to see such an effective and high-performing team split up, but it's the nature of decommissioning work.

"The better you are at decommissioning, the faster you work yourself out of a job."

PCM is no sweat for our guys

Lathered in perspiration, lying on your back in just two feet of workspace whilst enveloped in a full body protective suit tethered to a 30m hose supplying clean air to keep you breathing as you operate machinery to decontaminate a radioactive chamber is not everyone's idea of a great day at work.

But this scenario is standard for members of our PCM Decommissioning team. Operatives speak of their potentially hazardous roles with a complete lack of drama.

Neil Irving has worked on the programme for six years. A former Health Physics Monitor, he was promoted to Control Room Task Supervisor two years ago. His role within the magazine is to check that everything runs smoothly – and safely.

"You must have 'eyes on' all the time," he explained. "Three pieces of work may be going on at the same time so you've got to keep on top of a lot of things. Contamination levels could be very hazardous. But I've thoroughly enjoyed the job and wish I had another six years on it. It's an interesting job and they are a good bunch of lads."

His view on team spirit is echoed by



Top: David Ramage, left Ray Williams and right, Neil Irving

colleagues David Ramage and Ray Williams.

Monitor Ray, an Acting Supervisor, said: "We work in some very awkward conditions, but we all look out for each other. We must be aware and regimented in everything we do. It's not just a case of getting dressed in your air fed suit and off you go. We have meetings every morning to discuss matters and have hazard sheets to complete."

David is a Decommissioning Operative. The

tools of his trade are a hand scabbler, likened to a grinder with a rotating disc, and a breaker, that chips away at a contaminated surface.

"I was told before I started on the job that it was hard graft, but I've enjoyed it," said David, for who air fed suits don't pose a problem.

"They can get quite warm," he added, with understatement.

Throughout the programme's duration, the team has made more air fed suit entries than the rest of the NDA Group combined.

But due to greatly reduced levels of contamination – four of the five magazines are now decommissioned – air fed suits are no longer required and operators work in respirators and Tyvek suits.

Within weeks, the programme will be complete and soon the magazines, used to store munitions during World War 2 and later to store PCM from nuclear sites across the UK, will enter a final phase.

"The demolition squad is in after us, and they won't have respirators, so we will have to make sure everything is clean for them," David said.

Paul's Points



As you will see, we have dedicated this edition of our newsletter to one topic.

But if any subject deserves to be examined in depth it is our PCM Decommissioning Programme, which is heading for a successful conclusion after six years.

The saving of around £20m to the UK taxpayer by completing it almost four years ahead of initially planned has often been highlighted, understandably so, but another proud achievement has been the programme's safety performance.

Completing the programme on its accelerated six-year schedule has been a key focus of the organisation, but our No.1 priority has always been safety and compliance.

Not a single Lost Time Accident has occurred over the programme's duration, which is another great achievement, but to be honest, I can't say that comes as a surprise as I am aware of the stringent safety procedures that are in place and the calibre of the workforce, at all levels.

The programme has been a towering example of what can be achieved when a determined and focused group who really want to get the job done, adopt a collaborative approach. LLWR formed a team with our Decommissioning and Demolition framework partner NSG and team members have collectively been known as the PCM Decommissioning team. There is no 'them and us' mentality.

I can't name them all here, but led by Rob Yetts and latterly Carl Smith, from LLWR, and NSG's Andy Deall, followed by Gareth Wilson, they have been a credit to the nuclear industry.

The experience and professionalism NSG has brought to the programme has been key, and their legacy will remain long after their departure through their 'Perfect Day' concept which we have adapted and made our own. Performance is measured against key metrics, including safety.

The programme's 12 hours a day, seven days a week schedule concluded on 31st May, and just ahead of this landmark we hosted a stakeholder event to celebrate the end of our Site's six-decade association with the decommissioning of PCM facilities.

We are proud of our achievement and pleased that we are fulfilling a long-standing commitment made to the local community to remove all PCM from Site and decommission the facilities.

Demolition of the facilities will commence this year and the magazine bunkers will be demolished over the coming years and the material reused in the capping of Vault 8.

More generally, our safety performance across the organisation remains strong and our Total Recordable Incident Rate stands at zero. This performance has been recognised by our Parent Body Organisation (PBO) through the award of 'Safety Excellence Medals' to several individuals who have demonstrated safety leadership.

In other news, we are to hold a 60th Anniversary celebration to mark six decades of safe working at the Repository.

The event will have the community at its centre, and we hope to welcome as many local people as possible to it.

It will be held on Saturday, 21st September, 2019, and more details will follow in the coming weeks.

Paul Pointon
Managing Director

Keeping stakeholders in the picture

At LLWR we take pride in our strong community bonds, so when Magazine 10 was decommissioned we wasted no time in giving key stakeholders a tour of the facility.

Representatives from the Nuclear Decommissioning Authority (NDA), Drigg & Carleton Parish Council, local authorities and trustees of Drigg Charity were on hand to check our progress.



Above: guests outside Magazine 10 and below, speaking to Head of Site Rob Yetts

"They were the first civilians to enter Magazine 10, in their everyday clothes, in decades," said Rob Yetts, Head of Site. "The only protective equipment required were cover shoes!"

"It was a significant milestone and effectively marked the end of the programme. The next step will be to demolish the facilities.

"We have been addressing legacy issues spanning more than 50 years, and in a few years, the magazines will be a distant memory. In today's environment, that waste would never come to the Repository in the first place."

The magazine was one of several where PCM generated from



operations at Sellafield was stored in the 1950s and 1960s. During the 1990s, modern facilities, known as Magazine Retrieval Facilities (MRFs), were constructed to facilitate the removal, repackaging and transport of the PCM for safe storage at Sellafield.

"Our guests could see at first hand what our operatives had been working on," Rob said. "We took them through the process, from dressing the operatives, to our monitoring regime and through to where work was conducted."

Among the visitors was Joyce Dalton, whose late husband Adrian was a leading campaigner in the bid to have PCM returned to Sellafield.

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