

# Annual Report

2013



## Company Highlights

Delivering the best nuclear science and technology solutions in the world

Integrity, Innovation and Impact

### Key Highlights of 2012/13:

- Over 12 million hours worked since our last Lost Time Accident
- Record turnover (almost £87M) and record operating profit (almost £8M)
- Recognised in the Government's Nuclear Industry Strategy as being at the heart of UK nuclear science and research – with associated changes to our role and remit
- Continued progress on our major programme of facilities improvements on the Sellafield site in Cumbria
- Further improvement in both our technical reputation and our external CSR presence
- Inaugural NNL "IMPACT Awards" Dinner in April 2012 – celebrating excellence and outstanding effort across the company

## Contents

04	Chairman's Introduction	●
06	Managing Director's Report	●
08	Who We Are and What We Do	●
10	Our Facilities	●
12	Financial Director's Review	●
14	Environment, Health, Safety & Quality	●
16	Security	●
17	Technical Highlights	●
20	World Leading Expertise	●
22	Scientific & Technical Reputation	●
23	NNL in the Community	●
24	Corporate Responsibility	●



# Chairman's Introduction

Richard H Maudslay CBE, FREng



This has definitely been a pivotal year for NNL, culminating in a series of Government announcements during March 2013 which place NNL at the heart of their thinking on nuclear technology matters. These announcements included the Nuclear Industrial Strategy, which recognises the vital strategic role which NNL must play.

One resultant change for our Laboratory is the move back to direct governance by Government, which took effect at the end of September 2013 (after the end of the period covered by this annual report). We have now become a "GOGO" company (Government Owned, Government Operated) rather than the "GOCO" business (Government Owned, Contractor Operated) we were previously. This builds on NNL's transformational progress during the four and a half years since we were created in our present form.

We now operate on a rigorous commercial basis, carrying out work that is essential to our diverse range of customers. Credit is due to the SBM consortium (Serco, Battelle and The University of Manchester) for the role they played in helping us to achieve that progress. Over the same period the technical reputation of both the business and our people has risen substantially. The confidence shown by Government in establishing NNL at the centre of their strategy is a resounding vote of confidence in the work being done by everyone connected with NNL.

Despite the potential distractions provided by the Government's deliberations around the future of nuclear R&D - and of NNL itself - this has been another year of record performance from the organisation. Many of the highlights are described within this report, which I very much hope that you find of interest.



"The confidence shown by Government in establishing NNL at the centre of their strategy is a resounding vote of confidence in the work being done by everyone connected with NNL."



# Managing Director's Report

Paul Howarth

After a considerable period of discussion and debate, the end of this financial year saw a massive step forward for NNL with the publication in March 2013 of the Government's Industrial Strategy for Nuclear. The Chairman has commented on that, and its implications are described elsewhere, but it places NNL in a very strong position to go forward leading a programme of strategic work on behalf of UK Government.

However the bedrock of our business remains - and always will remain - the safe and secure delivery of work for commercial customers across the industry to time, cost and quality. I'm pleased once again to report that we have been able to combine our world-class facilities, our vast breadth of experience, our innovation and our relentless attention to detail to deliver record turnover and record operating profit of almost £8M. As we move forward into a new phase for the business, we will maintain our focus on delivery for customers and on our critical facility development projects.

Even more important than profit though is safety, and I'm pleased to report that once again our Days Away Case rate was zero and we continued our excellent record of either winning RoSPA's Annual R&D Sector Award or else being Highly Commended. I am more than happy to sound like a scratched record by repeating every year how important it is for us to send our people home safely and securely every day they come to work.



It's always difficult to pick out a handful of highlights from such a long menu of potential topics, but a few of the things which have pleased me the most this year have included:

- Our excellent safety credentials, as mentioned above, coupled with good performance in the associated areas of security, health, environment and quality
- Another successful year of delivery to our customers, big and small, across the business
- Continuing our major programme of facilities improvements, including progress on both the Windscale Laboratory and Phase 2 of Central Laboratory as well as the start of early commissioning work on Phase 3 of Central Laboratory, although in all areas there remains much work still to do
- Being selected by Government to lead for the UK on the international Jules Horowitz test reactor project based in France - a key sign of Government's desire to work closely with NNL to return the UK to the "top table" of nuclear nations
- Holding our inaugural IMPACT Awards Dinner in April 2012, celebrating excellence and outstanding effort across the company

We also rebranded the organisation in September 2012 and our new branding - fresh and bright, but retaining our core identity - symbolises to me a lot about the future NNL and its people have ahead of us.

"We have been able to combine our world-class facilities, our vast breadth of experience, our innovation and our relentless attention to detail to deliver record turnover and record operating profit."

PAUL HOWARTH





# Who We Are and What We Do

NNL's principal activity is the provision of technology services across the nuclear fuel cycle. As of 1st October 2013, the Company is a Government Owned, Government Operated business (GOGO).

NNL serves a wide range of customers across the nuclear industry, in the UK and beyond, and provides technical support and services to customers in three key areas of the nuclear fuel cycle:

## 1. Waste Management and Decommissioning

Products and services are focused on supporting customers via the development and application of technologies and techniques that assist with the ongoing and eventual decommissioning of nuclear facilities.

The business comprises the skills and facilities required to cover the full dimension of waste management and decommissioning projects.

Key areas include environmental and effluent management, measurement and analysis and waste immobilisation technology. Programme integration and project management also form a key part of the service portfolio.

## 2. Fuel Cycle Solutions

The business is focused on providing fundamental technical solutions to customers in the nuclear industry. It covers fuel cycle performance and technology development, spent fuel disposition and plant integrity.

Other areas covered include nuclear security, safety management and engineering services. An advanced modelling and simulation capability is also a key part of the directorate.

## 3. Reactor Operations Support

As the profile of nuclear generated energy continues its resurgence in the UK and internationally, NNL provides key services to reactor operations. These include Post Irradiation Examination (PIE) and performance of fuel, components and graphite. The business also offers services covering power station chemistry, endoscopy and metallography.



NNL serves a wide range of customers across the nuclear industry, in the UK and beyond.

## Our Customers

Our largest customers are the Nuclear Decommissioning Authority (NDA), Sellafield Limited, Magnox Electric Limited, Springfields Fuels Limited, EDF Energy and the Ministry of Defence. The Company also serves other customers in the UK, USA, Japan, Europe and Middle East.

## Investing in the Future

A key part of our work is maintaining and developing critical skills and attracting talented new people to the industry. One way in which we do this is through an extensive - £1 million a year - investment in a self-funded Research and Development programme.

# Our Facilities

NNL has access to a unique series of nuclear technology research facilities. At Sellafield, we operate our advanced flagship facility, the Central Laboratory alongside the handling and inspection capability in the Windscale Laboratory.

Complemented by non radioactive engineering facilities at Workington, NNL also operates the Preston Laboratory carrying out uranium active research. Additional capability is located at our office locations at Risley, Stonehouse and Harwell.

## Full Facility Suite

A fully functional Central Laboratory will establish NNL as a provider of the full suite of technology services. Active and non-active laboratories and rig halls are in operation while alpha laboratories will begin active commissioning in 2014. We hope to have high active cells available by 2016. Central Laboratory external infrastructure upgrades are underway to be completed in 2014.

The Windscale Laboratory is a nationally strategic facility comprising shielded cells with remote operations. This enables handling of highly irradiated materials. The facility continues to operate to meet customer needs while undergoing refurbishment.

Test rig activity at the Workington Laboratory supports Sellafield operations. The facility uses conventional industrial premises. A recent refurbishment has seen installation of improved, energy efficient lighting.

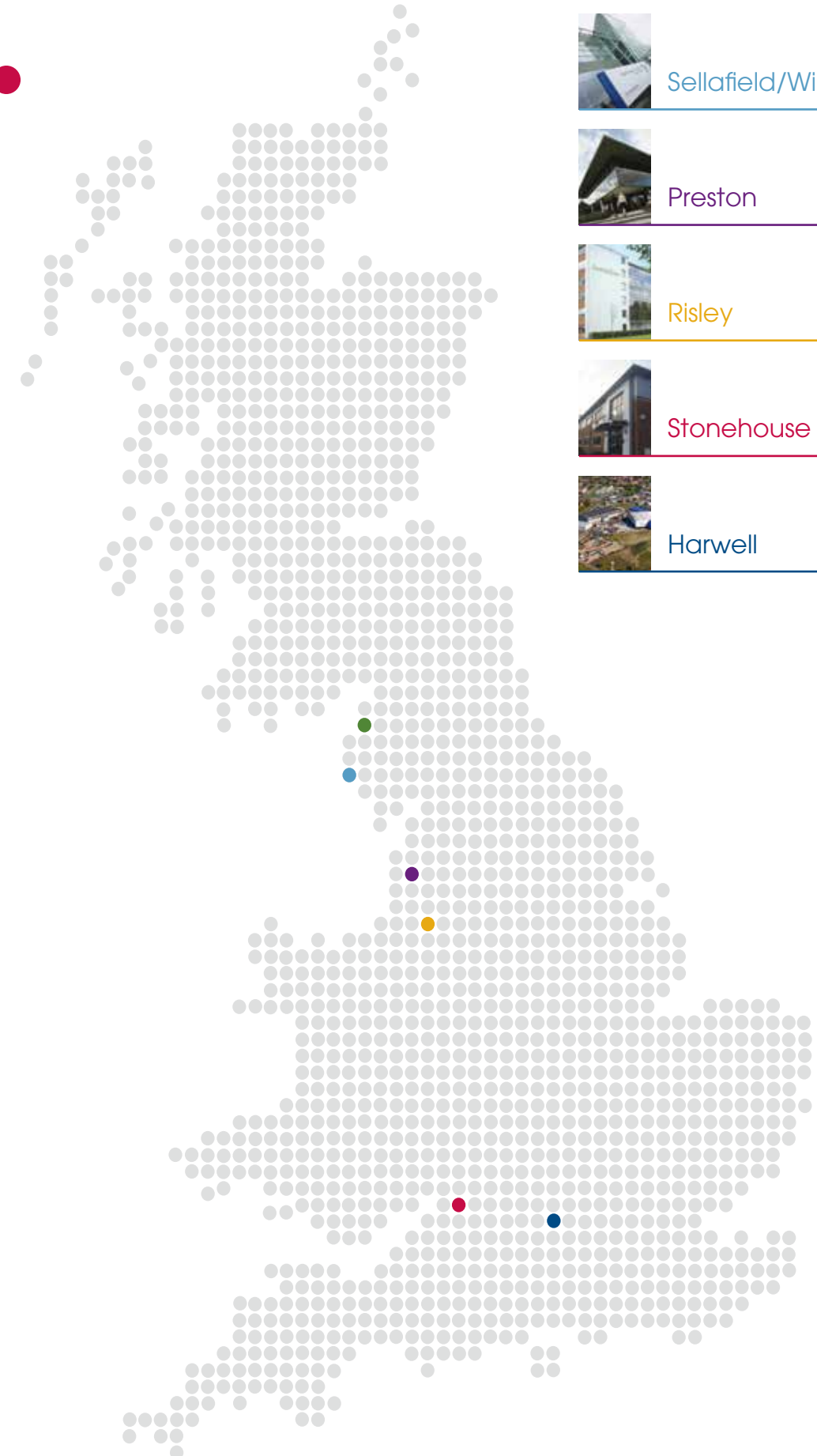
The Preston Laboratory undertakes uranium active research. The facility also operates an active pilot plant. NNL has additional capability at Harwell, Stonehouse and Risley. Activities include chemical and process modelling, environmental and materials management, radiation chemistry and post irradiation examination.







### Delivering Better Service

- £50M five-year facility investment
- Central Laboratory external structure refurbishment
- Central Laboratory alpha and high active facilities
- Windscale improvements and critical upgrades
- Workington and Risley expanded to meet growth

### Facility Highlights

- Central Laboratory Safety Case
  - Long term periodic review completed
  - Implementation November 2014
- Workington Laboratory Cumbrian 'Innovus' Project
  - Supporting small and medium enterprises
  - Access to facilities and technical expertise
  - Starting 2013



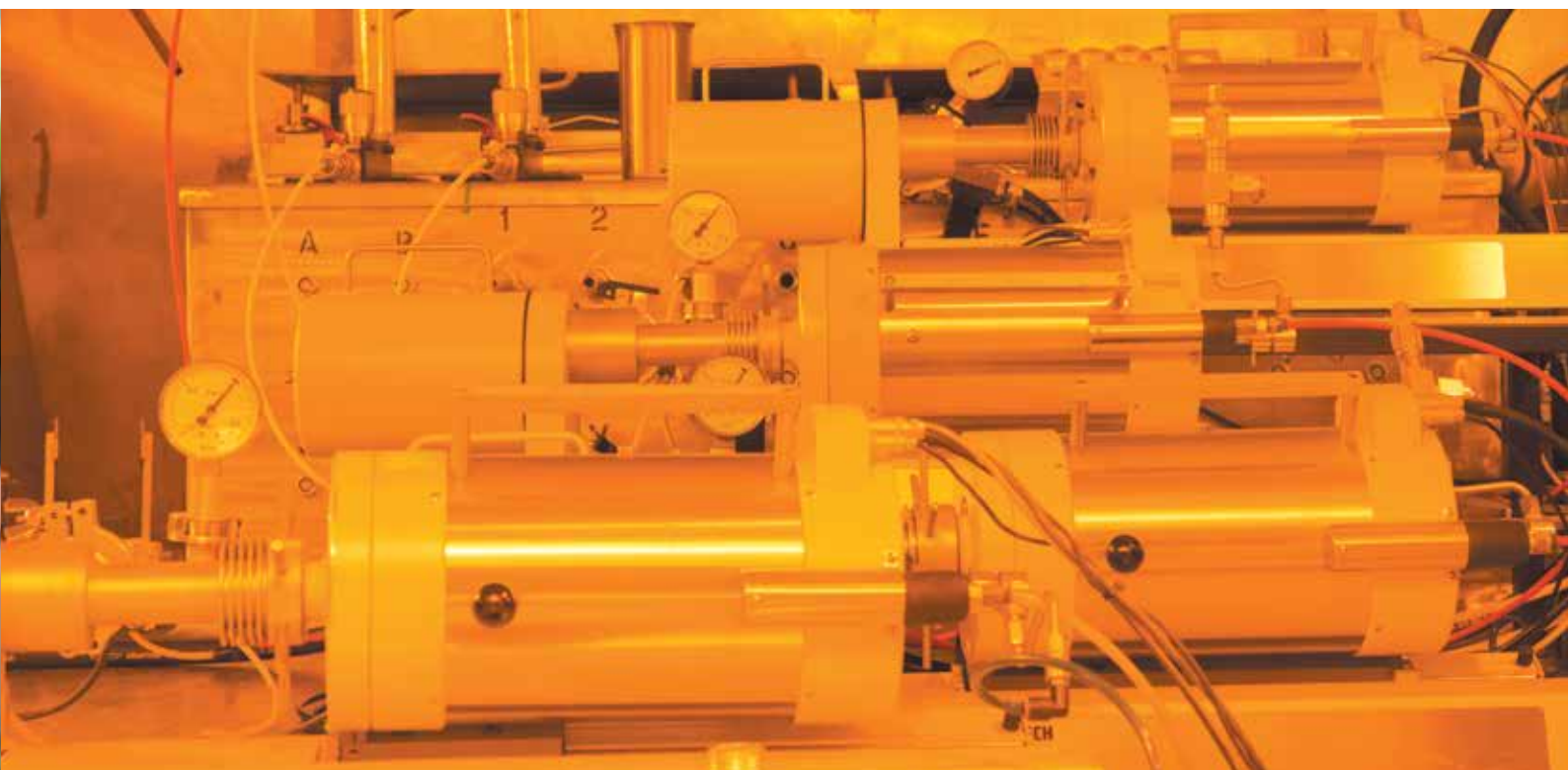
-  Workington
-  Sellafield/Windscale
-  Preston
-  Risley
-  Stonehouse
-  Harwell



# Financial Director's Review

David Healey

During the year the business focused on delivering service to its customers while maintaining quality and delivery standards. The company achieved revenue growth above inflation in challenging market conditions; costs were also closely managed in order to maintain healthy operating margins.



	2013 £,000	2012 £,000
<b>Revenue</b>	86,879	83,996
Cost of sales	(64,601)	(61,408)
<b>Gross Profit</b>	<b>22,278</b>	<b>22,588</b>
Administrative expenses	(14,304)	(14,718)
<b>Profit from operations</b>	<b>7,974</b>	<b>7,870</b>
Financial income	589	222
Financial expense	(572)	(390)
<b>Profit before tax</b>	<b>7,991</b>	<b>7,702</b>
Tax expense	-	-
<b>Profit for the year</b>	<b>7,991</b>	<b>7,702</b>

The company has demonstrated a consistent ability to win new work in increasingly competitive markets, successfully managing and delivering projects whilst maintaining a strategic UK skills base and delivering value to both its customers and owner.

Overall drivers for the company include the objective to support the UK's strategic nuclear research and development requirements and operate supporting facilities. The company leads and integrates technology programmes and provides advice to Government in support of nuclear policy. As a major priority, the company will identify, safeguard and enhance key nuclear scientific skills and facilities and develop a technology skills pipeline into industry.

Commissioning of Central Laboratory Phase 2 is underway and will introduce a significant new capability into the business. Significant refurbishment of the Windscale Laboratory is also underway.

"The Company achieved revenue growth above inflation in challenging market conditions."

DAVID HEALEY

# Environment, Health, Safety and Quality

NNL has won the prestigious RoSPA Research and Development (R&D) Sector Award in seven of the last ten years and we were Highly Commended in 2013. This recognises us as one of the leading organisations for health and safety in the R&D industry in the UK. This external recognition continues to confirm NNL's excellent health and safety performance and our ongoing commitment to EHS&Q. Continual improvement and constant vigilance are cornerstones of our approach.

The Days Away Case (DAC) rate (rolling 12 months) is zero. We have achieved well over four million hours worked since the last DAC occurrence, and 12 million hours worked since our last RIDDOR reportable Lost Time Accident (LTA). There were no INES, significant environmental or RIDDOR Dangerous Occurrence events during the year.

## Assurance

NNL continues to retain its certification to the ISO 9001:2008 (Quality Management), ISO 14001:2004 (Environmental Management) and ISO 27001:2005 (Information Security) standards with our internal systems and processes continuing to maintain the confidence, and ultimately the approval, of the certification body, LRQA.

Additional audits and assessments performed by industry regulatory bodies and primary customers also generated positive results providing confidence in our systems and internal standards as well as opportunities for development.

## Quality

The business achieved its aim of having no more than 12 significant rework events during the year with a total of 6 occurring, representing a satisfying level of performance. As a result this target will be further reduced to continue to challenge performance and drive improvement.

To further support improvement the internal review meeting structures have been developed to enable more timely follow up to key events through the Quality Improvement Leaders (QILs) and early identification of potential trends and themes.

Quality based communication was a focal point during the year and was extended to increase the level, frequency and type of information (through creation of a Quality Matters newsletter and developed intranet pages) to help the business better understand good practices and potential risks to overall delivery.

“NNL is one of the leading organisations for health and safety in the R&D industry in the UK.”





## Security

As an operator of facilities on nuclear licensed sites, security is a key priority for NNL. We carefully manage all aspects of security for our business across internal activity and in our relationships with customers.

We work closely with the regulator to make sure that our security practices meet and exceed their stringent requirements. Key security management elements include materials, assets, information and personnel. NNL was the first civil nuclear organisation to achieve ISO27001 in 2009.

We continue to excel in our security performance. In the past 12 months, NNL has completed the Government security culture survey, including a specific Executive Team Review.

NNL has worked with the regulator the Office for Nuclear Regulation (ONR) over the past year to implement an appropriate response to the introduction of revised security regulations. This has involved the development of security cases for each NNL facility handling nuclear material. We have also pioneered the use of a Nuclear Security Committee reflecting a similar approach to that taken with safety cases.

NNL has completed a pan-European review of security vetting practices. Our initiative to install Government Secure Intranet services is now offered to other NDA Estate members. We are supporting EU programmes to enhance the secure management, storage and transfer of information for developing nations.

We provide support to national and international security and resilience challenges. Our expertise in decommissioning, waste management and hazard reduction has been vital in delivering EU capacity building projects. This has seen the UK host a dedicated training course for a delegation from Iraq and complete follow-up actions.

Innovation is delivered through new technology development and transfer. NNL has led the application of quantified methods for determining security system effectiveness. This offers unrivalled capability to perform cost-benefit analysis and optimum security performance in accordance with outcome based regulation.

NNL has trialled the use of digital camera based radiation detection technology. Mobile telephone and digital CCTV camera versions offer security and resilience enhancement at negligible cost. Decontamination factor testing has been introduced in accordance with ISO8690. This enables NNL to assess the ease to which a surface can be decontaminated.

## Technical Highlights



### Safety Support at Springfields

Springfields Fuels Ltd (SFL) manufactures uranium hexafluoride, low enrichment uranium oxide fuels and intermediate products. The site also processes fuel cycle residues resulting from both Magnox and uranium oxide fuel production processes.

NNL provides a Safety Management service from its Preston Laboratory. We provide expert radiological, criticality and chemotoxic safety support to various plant modifications that SFL wish to make (both operational and engineered).

Over the past year, this support has ranged from ad-hoc technical advice and peer reviewing plant modification proposal forms to running and providing technical input into HAZard and OPerability (HAZOP) fault studies.

Once the appropriate fault identification processes have been carried out, NNL produce the required safety assessments, working closely with SFL to ensure that the safety solutions are As Low As Reasonably Practicable (ALARP) and fit-for-purpose.

We then follow up and support the implementation of the safety documentation by providing input into various plant processes as required (e.g. operating instructions, engineering justifications, clearance certificates and inspections).

SFL's strong safety culture relies on well-trained and knowledgeable people with a questioning attitude. To support this, NNL places a strong emphasis on providing focused, job-specific training as appropriate in support of any new modifications.



## Technical Highlights

### Magnox Sludge Storage Silos Beta Gamma Waste Project

On the Sellafield site, the Windscale Advanced Gas-cooled Reactor (WAGR) is nearing the end of its decommissioning phase. As this plant has a grouting facility and a waste store, Sellafield Ltd have identified the WAGR facility as a suitable option for the receipt, encapsulation and storage of some of the historic Miscellaneous Beta Gamma Waste (MBGW) from the Magnox Sludge Storage Silos plant. This is known as the Beta Gamma Waste Project.

As part of this process, MBGW sealed containers would have to be removed from skips and disrupted (i.e. opened) before being encapsulated in waste baskets. This disruption is necessary to enable the egress of can liquids and gases as well as providing access for the grout.

Sellafield Ltd approached NNL to undertake a series of independent 'proof of concept' trials aimed at increasing the understanding of the handling, disruption and grouting of the MBGW waste. The objective of the trials was to demonstrate an appropriate level of technology readiness.

The project involved the optioneering, design, procurement, manufacture, build and operation of remote equipment on a full scale test facility at NNL's Workington Laboratory.

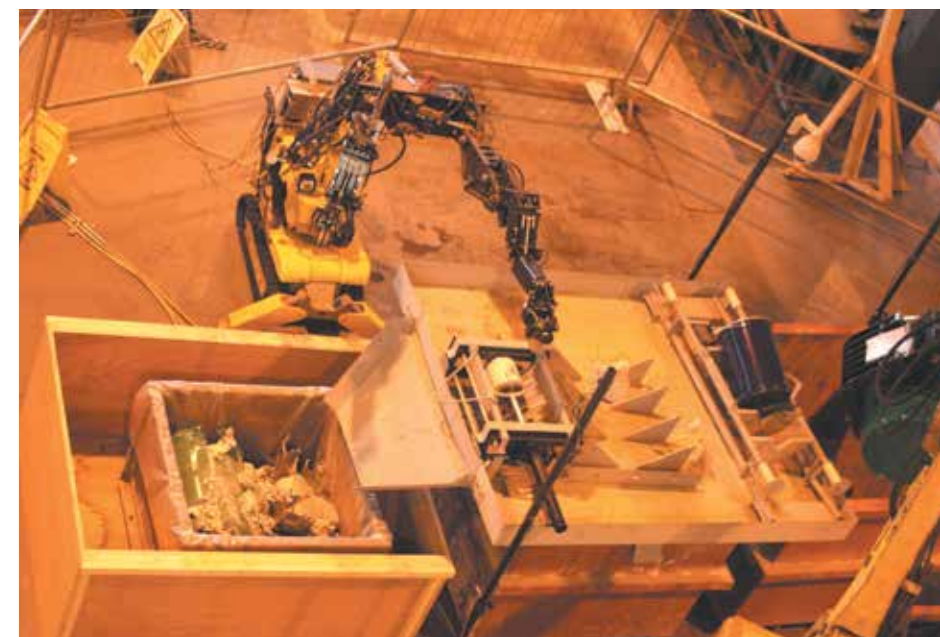
The project started with optioneering exercises to identify potential technologies and methodologies for conducting the can disruption and handling tasks. Following a methodology

study and assessment of these various techniques, a design and procurement phase was undertaken for the more viable options. The selected equipment was then assembled into a full scale mock-up to enable remotely performed trials to prove the viability of the techniques.

The developed solution utilised a linear layout of processing equipment with a heavy duty Remotely Operated Vehicle (ROV) to handle the heavy and bulky waste items (up to 400 kg) and a light duty ROV, mounted with two hydraulic manipulators, for handling the smaller waste items, disruption tools, waste sorting, segregation and general housekeeping duties.

Although the main disruption tool, a hydraulic shear, was very successful in easily and rapidly disrupting all the waste cans tested regardless of their size, shape or contents, a number of other cutting tools were also successfully demonstrated. In addition, two compactors were trialled as a means of compacting and piercing the cans to successfully release liquor and gas.

All the handling and disruption trials were performed remotely, with the assistance of a CCTV system, while the operators were located at a remote work station. The degree of disruption was assessed and confirmed as successful by finally grouting the waste items in moulds and subsequently sectioning and examining them.



“NNL provided extensive, quick and efficient support to ensure our customer was able to meet key performance targets.”



# World Leading Expertise

With the UK set to experience a nuclear resurgence, the need to maintain and grow key capability, skills and expertise across the nuclear fuel cycle is a top priority.

**NNL combines the critical research and development skills and world-class facilities essential in supporting the nuclear industry in the UK.**

We can call upon over 10,000 man-years of experience and expertise across the whole nuclear fuel cycle and NNL is the only UK organisation with the skills, expertise and facilities to provide a complete technical support service. We build careers for outstanding people with the finest development opportunities. NNL has quality people in great jobs creating innovative and exciting technical solutions.



**Jonathan Hyde**  
Chief Technologist

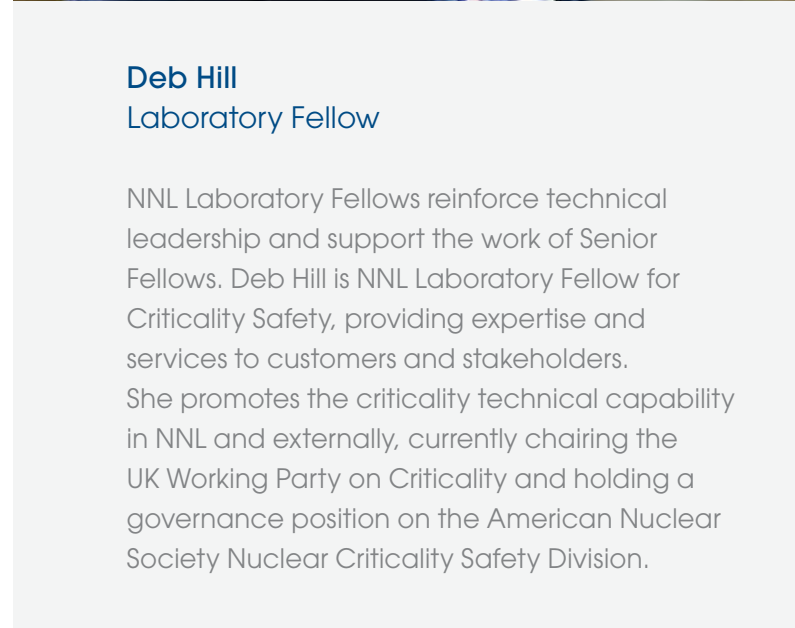
Jonathan Hyde represents NNL in reactor-related areas such as fuel, graphite and power station chemistry. The work supports the continued operation of nuclear power stations in the UK. Chief Technologists are core members of the NNL science and technology community.

In his role, Jonathan is part of the elite group of experts taking an overview of technical strategy across NNL in support of the full nuclear fuel cycle. Jonathan and his fellow Chief Technologists ensure NNL maintains and develops appropriate technical skills and capabilities through various activities including internal R&D and collaborations with Universities.



**Robin Taylor**  
Senior Fellow

Senior Fellows provide expert technical leadership and are ambassadors for NNL externally. Robin Taylor specialises in plutonium and minor actinide separations chemistry for advanced reprocessing. He also supports operations on the Sellafield site including safe storage of plutonium. Robin combines his work with a major contribution to the academic sector having recently become Visiting Professor at The University of Manchester's Dalton Nuclear Institute.



**Deb Hill**  
Laboratory Fellow

NNL Laboratory Fellows reinforce technical leadership and support the work of Senior Fellows. Deb Hill is NNL Laboratory Fellow for Criticality Safety, providing expertise and services to customers and stakeholders. She promotes the criticality technical capability in NNL and externally, currently chairing the UK Working Party on Criticality and holding a governance position on the American Nuclear Society Nuclear Criticality Safety Division.



**Scott Owens**  
Business Manager

Business Managers are key people leading technical teams, delivering products and services and taking responsibility for quality, revenue and people leadership. Scott Owens leads on Chemical and Process Modelling using computer simulation to model a range of chemical and materials processes – from fuel to waste reactivity. Being a technical specialist, Scott also contributes via visiting positions at Universities and through published papers.









# NNL Scientific and Technical Reputation

We don't just care about operating safely, delivering to customers and achieving a strong financial performance, although all of those things are important to us. We are a business rooted in science and technology, so we – and our customers, Government and other stakeholders – want to be sure that we are performing at the highest levels of scientific excellence. And that we're recognised as doing so.

To that end we benchmark our performance against a series of metrics. In calendar year 2011 we reported a record year, and we've surpassed that performance in 2012.

The table below shows our performance and highlights that in four out of the five categories we achieved our best ever performance.

>NNL's Scientific and Technical Performance in 2012		
External technical peer reviews of NNL work, to ensure high quality science & engineering	169	
Peer reviewed NNL publications in journals or conferences	99	
Established NNL visiting roles at universities	52	
NNL involvement in national or international fora, committees, etc	58	
Technical peer reviews by NNL for external customers	38	

# NNL in the Community



## Cake Baking, Raising Hell and Racing for Life

**NNL is committed to supporting the communities around its operating sites and fully recognises the value provided by local people employed in the business.**

There are many specific examples of NNL working in and for the community. These range from baking cakes to some much more strenuous activities.

The good news about NNL cake bakes is spreading and they have become events in their own right. The bakes have gone from strength to strength and have featured a welcome surge in numbers contributing, particularly male bakers.

In 2013, the bakes have directed cash at local charities in West Cumbria. Many of these good causes have been nominated by NNL Sellafield based people. The bakes have also arrived at other events to add even further support to fund-raising.

A brave group from NNL participated in 'Hell on the Harbour Side'. This event provides a unique test

of strength and stamina as teams run, walk and crawl their way around Whitehaven harbour and the surrounding area. The cake bakers turned up in force at the 'Hell' for their monthly session in support of the Great North Air Ambulance appeal, which NNL match funded.

Fundraisers also took their places in the Cancer Research UK 'Race for Life' event in Carlisle in 2013. Race for Life is uniting women across the country in the fight against cancer and the events cover 5,000 and 10,000 metres. A NNL family team took part in the race and a number of cake bakes were also held to raise funds for Cancer Research UK.

Cancer Research UK has a real resonance with NNL as a Sellafield based colleague was undergoing breast cancer treatment at the time.

Sales of cakes and related produce also provided welcome funds for the Royal National Lifeboat Institute (RNLI) at St Bees village adjacent to the Sellafield site. The sale was match-funded by NNL.



# Corporate Responsibility

At the National Nuclear Laboratory, we take our Corporate Responsibility very seriously and participate in a range of activities to ensure we support the wider nuclear industry and the communities in which we operate.

## Key Highlights:

- NNL led the STEM event at the Whitehaven Science Festival attracting 7,000 visitors
- Provided a tailored science and engineering experience for 25 work experience students
- Delivered one day lectures and workshops to schools across the UK
- Supported the Engineering Education scheme
- Grew the NNL STEM ambassador group including all new graduates
- Played key role in installing school weather station in eco garden at Maryport Cumbria

## Supporting Skills

NNL is tasked by Government to protect nuclear skills and the national nuclear technology capability, so our primary CR focus continues to be on education. This involves activities centred on investment in science learning, training and general support for young people.

Over the past six years, NNL's strategy has also led to key development opportunities for our own people in supporting various initiatives and schemes. Employee contributions to our CR programme are recognised and rewarded.

## Smallpeice Trust

This year, we continued our vital work in partnership with the Smallpeice Trust. The Trust is an independent charity working with industry to provide programmes that promote engineering and related careers to young people.

In partnership with the Trust, NNL directly supports and sponsors a five day residential nuclear engineering course that is open to students aged between 14 and 16 years. Each course accommodates up to 60 students.



The catchment area for the courses is the whole of the United Kingdom, with a high proportion of participants coming from the communities around NNL sites.

Led by NNL, students take part in engineering and scientific challenges applicable to the nuclear and radiological environment. The courses also include learning related to associated safety issues.

The courses have run for six years and have proved extremely popular. They are delivered in academic locations (Reeds School in Surrey), as well as university campuses (Liverpool, Manchester, Durham and Bangor). This year also saw the use of Rugby School as a new venue for a new course. Arrangements are in place for the coming year with the University of Liverpool being added to the list of university venues and a new partner (Bicester Royal Academy of Engineering) will be working with NNL and Smallpeice Trust to deliver new course material.



Building on the success of the NNL Nuclear Engineering Course the partners are continuing to develop new and exciting initiatives on behalf of young people in the future. During the year these included:

NNL employees delivered a range of one-day lectures in various schools across England. The lecture topics ranged from 'Nuclear Fission' (with a workshop to demonstrate the principles) to 'Renewable Energy' (with demonstrations highlighting wind and solar power).

NNL employees installed a weather station at Maryport School to support the promotion of their Eco Garden. Employees attended the school at regular intervals to assist with the garden and to demonstrate the use of real weather data for a core unit of the schools program. The aim is to expand this weather station project to schools across the whole of the United Kingdom.

NNL embarked on a formal summer work experience program with 25 students visiting Sellafield and Workington offices on either a science or engineering experience program. The program was tailored as much as possible to the requirements of the individual student. The majority of students were from the Cumbrian area but four came from Scotland, the North East and South East of the United Kingdom.

NNL employees helped deliver the Whitehaven STEM event during the Whitehaven Festival. This involved collaboration from local professional institutions and local nuclear based companies. The event lasted three days, with day 1 hosting 920 students and teachers from local schools enjoying hands-on experiments and days 2+3 being open to the public. Over 7,000 visitors came to visit the event.

NNL employees delivered an 'Engineering your Futures' day to A-level students in Manchester, Preston and Whitehaven. These career day events are a collaboration between various large technical companies and professional institutions.

NNL have a growing number of STEM ambassadors (including all new graduates) who routinely visit schools and assist with various projects from building water rockets to programming dancing robots and modelling nuclear depositories. The majority of these events occur around the NNL sites, but as more ambassadors become available, the events are expanded into other areas of the United Kingdom.

An independent registered charity established in 1984, the Engineering Development Trust runs schemes to inspire and motivate young people to choose a career in science, technology, engineering and mathematics (STEM).

NNL supports the Engineering Education Scheme (England and Scotland), providing young people with an insight into the world of engineering.

The scheme links teams of year 12 students and their teachers with local companies to work on real scientific, engineering and technical problems. During the six-month project phase, students are encouraged to show industrial enterprise, creativity and innovation while gaining extensive experience of problem-solving, team-working and project management. The scheme also helps employees working towards accreditation to the professional institutions.

Previous challenges have included the thermal analysis of a storage facility for critical case life assessment and acoustic monitoring of nuclear processes.







**Winner**  
**RESEARCH & DEVELOPMENT**  
**Sector Award**

Winner 2004-2008, 2010-2011  
Highly Commended  
2009, 2012 and 2013



5th Floor  
Chadwick House  
Warrington Road  
Birchwood Park  
Warrington  
WA3 6AE

**T.** +44 (0) 1925 289800  
**E.** [customers@nnl.co.uk](mailto:customers@nnl.co.uk)

**W.** [www.nnl.co.uk](http://www.nnl.co.uk)