

APRIL 2011 **DOUNREAY NEWS**

# Met Tower comes down

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## ON THE RECORD

by **Simon Middlemas**  
DSRL Managing Director

Late last year, I told you about some exciting changes happening to me personally and within the Babcock parent company.

There was a new role for me to look forward to as the company's account director for all its NDA business and a new managing director on the horizon for DSRL.

My personal circumstances have changed unexpectedly and I will not now be taking up the opportunity offered by Babcock.

I'll carry on as managing director of DSRL.

There will be a new management team coming in 12 months from now when a new parent body formally takes over ownership of DSRL.

So my intention is to lead the company through to the handover to the new owners.

The change in my own circumstances in no way changes my pride in what we have achieved together - or my confidence in what we can do together in the future.

We've got ourselves into good shape for the new owners. With your continued support and dedication, we can improve the company even more by the time the handover happens.

We've agreed with the NDA a busy programme over the next 12 months and there's some demanding targets to meet.

There's a new rewards scheme in place for meeting those targets, too, which gives us all a personal stake in the success of this company.

Another 12 months at the helm of DSRL is unexpected. But it's a challenge I'm relishing and will give my very best shot. All I ask is that you do the same. ○

Send your stories to the editor at:



sue.thompson@dounreay.com

# Met tower dismantled

The meteorological, or 'met' tower that once towered over the fire station, was dismantled over a weekend in March.

The tower was 55 metres tall, the same height as the FCA main stack, and was the site's main communication tower for a number of years for various systems. It was there to replicate the environmental conditions found on top of the main stack. It also acted as one of the site's lightning conductor.

These days, small digital

localised masts are located around the site so the tower's became redundant as a communications hub.

It also became redundant once the new FCA ventilation system started up, and the main stack was no longer used.

Contractors JGC and crane operators Simpsons carried out the operation, under the watchful

eye of DSRL senior project manager **Robbie Manson**.

The tower was dismantled into three 20m lengths, then lowered to the ground by the 300te mobile crane. They were then moved to a lay down area and dismantled before being taken offsite as recycled steel.

A total of 12 tonnes of steel was recycled from the project. ○



The team who carried out a successful demolition



# FCA main stack cap sealed

Dounreay's tallest chimney has been sealed in a weekend race against the weather.

The massive five tonne cap was fabricated by local company JGC Engineering & Technical Services, as part of the project that delivered a new bespoke ventilation system to the FCA.

Putting the lid on the stack was a very visual end to the £10m project.

Steeplejacks from Churchill Specialist Contracting came up from Nottingham to complete the job that they started before the weather took a turn for the worse before Christmas.

From their position on the scaffolding at the top of the stack, they worked with the crane driver and teams on the ground to fit the steel cap over the mouth of the chimney and bolt it into place.

Buildings in the FCA that surrounded the stack were evacuated as a precautionary measure during the work.

DSRL project supervisor and appointed person **Jim Mackenzie** watched the lift.

Senior project manager **Iain Lyall** said that he was delighted with the team work demonstrated by all the different companies involved.

"They all did a fantastic job of making sure the lift went ahead safely. The steeplejacks and the crane operator were second to none. All credit to those who were involved." ○



Jim Mackenzie



## News in brief

### Road re-surfacing takes place

JCL Estates completed the resurfacing of Street 9 on site at the end of February, as part of the facilities management contract. Street 9 is one of the principal routes serving the decommissioning of PFR and DFR.

The road surface had been in a bad state for the last few years, caused by the lack of proper drainage. This resulted in rainwater collected on the roadway, leading to potholes and a break up of the surface of the road, and was exacerbated by recent severe winters.

Johnson Controls installed a new drainage system was installed late last year, which allowed the resurfacing work to be carried out.

Five hundred tonnes of asphalt was laid by local sub-contractor John Gunn & Sons to specifications supplied by Johnson Controls. The work was carried out over a period of two weeks.

Completion of the surfacing should now mean that Street 9 will last until the site is gone.

### DFR pond nearer to closure

Emptying the DFR east pond is almost complete. This six metre deep concrete chamber has been drained of its 500m<sup>3</sup> of water in preparation for removing the concrete and bitumen liner as the former reactor is pulled apart. The remaining sludge has been captured in a basket.

Previously the sludge had been removed by agitating and filtering the suspended solids. The project team then designed and implemented a process to capture the remaining mass in a basket and minimise the quantity of filters for grouting and storing in 200L waste drums. The processes for grouting the captured sludge are in the final review phase.

Completing the water and sludge removal in the west pond has proved more challenging due to the higher radiation from the pond walls, floor and sludge. Shielding installed on the pond walls has successfully reduced that dose, but the radiation levels have continued to increase as the water level has been lowered.

The team believe the majority of the radiation is from the remaining sludge and so have been preparing to collect and transfer it to shielded baskets whilst leaving the water in place.

Project Manager **George Groat** said: "Everyone has worked very hard to develop fresh approaches as the character and quantity of the sludge is being revealed. We're looking forward to the day when the water level is low enough that the remaining sludge is visible as it is obviously much easier to deal with a problem that can be seen." ○

## News in brief

### IT business expands its operation in Caithness

Dounreay's IT services provider, CSC, is planning to expand its workforce in Caithness.

The company, which was initially attracted to the county by winning the contract at Dounreay, is diversifying into new markets from its base at Forss business park, with help from HIE who are providing funding of £37k.

CSC's local manager **Alan Sinclair** said that the company was looking at new opportunities in a range of sectors across the globe.

"Our highly skilled staff in the North of Scotland have proved themselves to be very adaptable in delivering a wide range of services in new sectors," he said.

CSC currently employs 32 staff in Caithness, and aims to create a further 15 jobs within the next two years.

### New quality services contract set to benefit projects

DSRL have signed up to an NDA estate-wide contract for the services of an independent quality services agency, RBG Ltd.

It should bring relief to hard-pressed projects at Dounreay, saving them both time and money in traveling to suppliers, and providing assurance that critical items are fit for purpose.

**Paul Murphy**, DSRL management systems manager, says, "Supply chain problems are becoming more frequent - do we really know what we're buying?"

The sensible use of qualified, professional inspectors to do quality-checks at suppliers premises can give assurance to stakeholders and peace of mind to projects staff for a very modest outlay".

More information on the quality services contract can be found on the site news page of the intranet.

### NDA's Annual Report & Accounts show increased earnings

NDA's Annual Report was laid before Parliament in November. It showed that £1bn of revenue was generated, exceeding target by £0.1 billion.

Alongside the efforts to drive up revenues, the accounts showed that costs reduced by £0.2bn, enabling £2.7 billion of work to be delivered from the NDA's £2.5 billion budget.

Energy Minister, **Charles Hendry** said: "The NDA should be congratulated for seeking ways to improve the affordability of its programme whilst maintaining a focus on safety and tackling the highest hazards. It is also showing strong leadership by reducing its own costs, and in doing so setting a good example to its sites." ○

# £2million fund to boost workforce skills

Workers and businesses who depend on Dounreay are set to benefit from a £2.2 million programme to help them adjust to the closure of the site.

An estimated 2,000 jobs will disappear over the next 15 years or so as the clean-up and demolition of the site nears completion.

The Caithness Chamber of Commerce is leading an initiative to harness the skills and expertise at the site.

"Make the Right Connections" aims to help employees of affected businesses find new opportunities on the other side of the site fence.



The chamber will carry out an audit of current skills and business capabilities and match these with opportunities in new industry through retraining, business growth and marketing.

The NDA and DSRL worked together to provide funding for the project. The NDA contributed £800,000 with DSRL providing £300,000. Other sources include Skills Development Scotland and the European Structural Fund.

"Socio-economic planning and co-operation is an essential part of our site closure programme," said **Michael Dunnitt**, head of HR at DSRL.

"This new initiative promises to make a significant contribution to the economic wellbeing of the north Highlands when Dounreay has gone.



"It builds on the work we've already started with our own workforce to help them transition. It reaches out to the supply chain as well as our own staff and will help them to identify routes out of decommissioning and into new business and job opportunities in emerging sectors such as marine energy and offshore decommissioning.

"For our own staff, the

regeneration and that we can play a part in supporting them to achieve our common goal of a sustainable economy when Dounreay is gone."

The chamber expects they will recruit two people to deliver the programme over the next three years, with a target to help 400 people each year. ○



programme will look to give them national recognition of their skills and competencies, which will assist individuals to move into these future opportunities.

"I'm delighted the business sector in the local community is taking the lead in the area's

Some 50 companies are involved directly in the clean-up, which accounts for more than 10 per cent of the current GDP of the North Highlands, and many more benefit indirectly from consumer spending.

DSRL has the largest single workforce, of some 900 staff. The company has reduced the size of its workforce by approximately 300 in the last five years and expects to shrink every year through to around 2025 as more of the site is cleaned up and demolished.

**"I'm delighted the business sector in the local community is taking the lead in the area's regeneration..."**

# Waste team keep it clean

A small team are a vital part of ensuring that Dounreay doesn't produce any more low level waste than is necessary.

Recent developments in the segregation of waste and improvements in monitoring techniques have meant big reductions in the volume of waste that is designated as low level.

It allows the waste to be recycled or, where this is not feasible, consigned to industrial landfill instead of a radioactive waste depository.

It all goes on at DN060, at the far east end of the site.

Led by **Graham Beaven**, the team is **Johnny MacIntosh**, **Stephen Reid**, **Jocky Sutherland**, **Davey Manson** and **Tom Deas**.

They size-reduce large metal

items, using Petrogen hot cutting equipment. The technology is a favourite with the Fire Brigade for cutting accident victims out of their cars because the sparks don't produce much heat.

Recent projects include a water tank from the D1334 laundry, redundant pipework from DFR, and a Karrimor trailer.

Elsewhere in the building, a dedicated area for checking smaller bags has been set aside, with a third counter due to join the existing two shortly.

Bags of clean/exempt waste from radiological areas are collected up and put through the machines. Once they have been

characterised, they are disposed of through that specific waste route.

"The clean/exempt waste route originated in about 2004, when we got equipment that was sensitive enough to check for very low levels of activity," said Johnny.

"Using the clean/exempt waste route saves the site money and reduces the amount of waste we put through the LLW route.

"This is the sort of waste that would have ended up in a C-bin, taking up expensive space in the LLW store for no good reason." ○

From left: Graham, Tom, Johnny, Steven & Davey



Johnny Mac and the DN060 team got a special thank you from the Particles & Land Remediation team for their help over Christmas, when they needed a large area to repackage some exempt waste.

Waste that falls into the exempt category will emit less radiation than naturally-occurring radioactivity found in everyday things like coffee beans, bananas or rocks.

## Site News in brief

- The DFR NaK disposal plant was re-started following a maintenance shut-down. During start-up, a blockage was identified in NaK pipe work in the reactor vault, which has now been cleared.

- Ground works for the new BOC nitrogen plant near DFR were temporarily delayed following discovery of unmarked redundant electrical cables and an asbestos pipe.

- The PFR decommissioning team removed metal samples from the Harwell carbon meter, roof insulation plates and diagrid to allow better characterisation of the reactor vessel.

- The DFR pond clean-up team completed sludge removal from the east pond during February, and have now recommenced filtration of the water in the west pond.

- Sludge removal from the underground tanks of the PFR old effluent treatment plant has begun.

- The D1204 decommissioning team began the decommissioning of the sample bulge.

- In D1200 Lab 77, the final dismantling of cell 11 is taking place.

- The refurbishment of the DMTR crane continued with offsite fabrication and preparation for the installation of the roof hatch.

- The redundant ventilation system in D1217 is being removed.

- The breeder dismantling machine is being decommissioned in D2001.

- The design for capping Landfill 42 is being reviewed.

- In DCP, a total of 452 drums have been cemented during the financial year.

- The failure of an 11Kv cable caused a power dip which affected a number of plants, all of which resumed normal operation within 24 hours. The site's electrical distribution team are reviewing the need for replacement work.

- The DSRL socio economic development plan has been drafted and was submitted to the NDA at the end of March.

- Work progressed on the new facility to house the Dounreay Emergency Control Centre and the Emergency Radiological Incident Centre, which are to be co-located. ○

# NDA

Nuclear  
Decommissioning  
Authority

## A review of the year from the NDA's Site Facing Team

April brings the end of another busy business year and the NDA's Site Facing Team (SFT) would like to highlight some of the good things that have happened over the last 12 months and thank the SLC staff and their contractors for their hard work.

2010 brought the NDA's organisational review and with it a new relationship between the client and the contractor. At Dounreay, the NDA's SFT feels that the new way of working has been accepted well by DSRL and we recognise and value the amount of work that has been done by staff to adopt new practices. Particularly worth noting was the willingness of DSRL staff to take on additional activities following the organisational review with emphasis on higher levels of self assurance leading to better quality documentation being supplied to the NDA.

At the most recent programme review meeting we heard from **Alan Scullion** that the regulators have been expressing their satisfaction about the high standard of nuclear safety performance delivered by DSRL and that SEPA have credited the SLC with a satisfactory score for environmental performance throughout 2010.

Along with the good safety and environmental performance the site has delivered on the majority of the operating plan targets and achieved a tremendous amount of hazard reduction during the past year, and we look forward to DSRL delivering the challenges set for next year which we believe will be achieved.

The NDA SFT and DSRL have been supporting the competition process. As you know, the owner of DSRL – the Parent Body – is being competed and two consortia made up of major players in the nuclear world are bidding to take over ownership from April 1, 2012. Each bidding consortium is keen to understand what is going on at Dounreay so the support team on site under **Mark Raffle** have been setting up meetings between bidder representatives and DSRL staff and providing the bid teams with over 5,000 documents to assist them in their "information discovery". This phase is coming to an end now and the next major news for the site will be when the preferred bidder is announced in November.

From a project controls point of view, last year saw an improvement in risk management reporting across the site. Project data packs were produced on time, to an overall good standard. These are important to NDA as we can get an understanding of the scope and estimate across all projects together with an appreciation for the risks and inter-project interfaces. We have had positive feedback from DSRL that they are also finding this structure of data helpful to manage projects. The positive and timely response to corrective actions from reviews was commendable.

When the new contract is put in place next year, for the first time delivery of socio economic support will be included. A new "partnering" approach to socio economic delivery and stakeholder relations will be adopted. The DSRL socio economics team have embraced the new partnering concept and taken on the challenge to work with the NDA and the PBO to put measures in place well ahead of time. In addition, they have made efforts to consult with external stakeholders about the socio economic plan, and made sure that it ties closely in with the work of other organisations involved in the Caithness & North Sutherland Regeneration Partnership.

And finally, just a thank you to everyone who contributed to a successful year at Dounreay. ○

# Glynis tackles stationery mountain

In the December issue, **Suzanne Mackenzie** reported on the actions being taken to reduce the site's stationery bill.

Now **Glynis Thornton** has taken it upon herself to deal with the problem of discarded stationery.

When D1226 was vacated, vast amounts of unused stationery items were left behind. Then came D9809 and the story was the same. By the time D1200 was emptied of staff the mountain of surplus items was too big for Glynis's meager attempts to dispose of it using the Bulletin Boards as she had in previous years.

After discussion and with the help of the Community Relations team in Dounreay.Com some 400 folders were distributed to local schools and organisations but there is still a lot more surplus for on site use.

So, if you need stationery and before you reach for the catalogue, you must ask Glynis (x6772) whether she has what you need.

If she doesn't have it, check if the items you need are stocked in Stores, who keep a large range of



Some of the stationery which was removed from the D1200 offices when they were vacated recently.

stationery items at reduced prices. Stores staff or Glynis can help you with the codes.

Your very last last port of call should be to buy stationery through our external supplier.

DSRL management are very serious about tackling this waste, so if you order items of stationery externally without checking what is available, further action may be

taken which could result in the removal of financial delegations. ○

A van load of unwanted files was given to local schools.



## Electronic bulletin boards get update

Dounreay's Bulletin Boards are an excellent way of getting information to people, or selling your unwanted household items or cars.

But like every forum, they have their rules, and recently there have been concerns about the use of the bulletin boards to advertise the interests of others not connected with DSRL or its employees.

The reason for some of the old rules hark back to the time when DSRL was part of UKAEA, and people moved between sites more freely than they do now.

So when the Communications team were given responsibility for the BB, it was the perfect time for them to take a look at what the BB was intended for and ensure that it is fit for purpose.

The BB policy has been re-written, approved by DSRL HR manager Michael Dunnett, and sets out very

clearly what can be posted, and what is not appropriate.

The main difference is that you can no longer advertise commercial businesses belonging to your partner, spouse, family, or friends. There are other ways of advertising that are more appropriate for them, such as community websites and the local papers.

If you are a DSRL employee, then you may advertise any business that you personally carry on outside work, such as making sweets or designing websites. But that is a perk only available to DSRL staff.

You may advertise for sale items that you own – your house, car, household items, pets, etc. You may also advertise things that belong to family and friends, so long as those items do not form part

of a commercial business.

So, for example, you can advertise your friend's jewellery, unless it is something that she makes as part of a business.

You can advertise your son's car, unless he makes money trading them commercially.

You may advertise a bring and buy sale on behalf of a local charity, but you cannot advertise a lottery-style draw run by a local club.

And, while you are not able to advertise the local keep-fit classes, you can put a notice on the bulletin board notifying people that it is cancelled.

Please read the rules before you post anything, and if you need advice, the Communications team are happy to help. ○

# Dounreay's latest graduates

Well done to all of Dounreay's staff who have been sponsored by the site and successfully qualified during the past year. *Dounreay News* talks to DSRL's latest batch of graduates.....

## Allan Farquhar – BSc Electrical & Electronic Engineering

I'm a Wick born and bred project engineer working at PFR.

I'm responsible for reviewing existing electrical control and instrumentation systems and, where necessary, upgrade works to ensure they are safe and fit for purpose. Our team identify redundant electrical equipment and isolate and disconnect through to stripping out scrap for removal from site and subsequent recycling.

I've worked with DSRL for three years. Prior to that I was a project engineer with Nuvia for ten years on both national and international projects, and I was with Rolls-Royce for ten years before that.

Since leaving school I have completed an electrical craft apprenticeship with an HNC in electrical engineering and have continued various part-time studies as opportunities arose. This helped me gain IEng MIET status during my time at Rolls-Royce and after two years part-time study on day release I've now attained my BSc qualification which incorporated radiological modules tailored for the nuclear industry.

I have an eighteen year old son who is studying art & design in Edinburgh and a five year old daughter who has just started primary school. As it's a long time since I did my HNC, the BSc course has certainly helped when faced with my son's maths and physics homework!

I feel very lucky to have the support from DSRL, UHI North Highland College and my colleagues in PFR to be able to continue my professional development which will certainly help in the world outwith Dounreay.

## Jared Fraser – BSc Electrical & Electronic Engineering

I manage DSRL's design office and am under no illusion that I will see out my working life here so I thought I'd better prepare myself for life after Dounreay. Having a degree will hopefully open a few more doors.

I started my study in September 2008 and found it very time consuming and difficult in parts, but strangely I did enjoy it. I already have an HND in electrical & electronic engineering and an HNC in CADD (Computer Aided Draughting & Design).

I proved to myself that I could do it and it also allows me to apply for IEng status with the Institution of Engineering and Technology (IET). Also one of the requirements for my post is a degree. I'm now waiting to see what feedback I get from the IET to see what further education I would need to progress to CEng level.

In the future I'd like to possibly get into the renewable sector and help develop what the county can offer. If not I'll probably end up in the oil industry like everybody else.

It's great that the county can offer students the choice of studying up to degree level without having to move away. DSRL fully supported me when studying and I'm very grateful for this.



David Eyers (Rolls Royce), Lee Rainford (DSRL), Allan Farquhar (DSRL), Neil Brims (JCL), Ewen Geddes (DSRL), Jared Fraser (DSRL), Kevin Macleod (DSRL), Ryan Macintosh (DSRL). Missing from the picture is John Moar (DSRL).

## Kevin Macleod - BSc Electrical & Electronic Engineering

I'm a design draughtsman working with the DFR breeder removal commissioning team.

I completed my HND in electronic engineering through my apprenticeship in 2007 and was given the opportunity to do my degree. As DSRL were good enough to pay I decided to continue with my education and attended college half a day a week plus a night class.

I enjoyed it up to a point, although since the qualification was a BSc it was heavily theory driven and if I'm honest, because of this I found a lot of the subjects covered hard to relate to my own individual work experience.

I started at Dounreay in 2003 and have aspirations to become an instrument design engineer. I hope that my degree will help my career development and help me on my way to buying my Australian villa and spending a few months of the year sailing and diving the Great Barrier Reef!

## Ewan Geddes - BSc Electrical & Electronic Engineering

I am a trainee plant electrical engineer/maintenance support technician, based in D1300.

I have worked at Dounreay for six years, five of which have been on site with one year at college as an electrical craft apprentice.

I have always been a fairly ambitious person and have never been out of education. During my apprenticeship I obtained my NC, HNC and HND in electrical and electronic engineering.

After my apprentice indenture certification in 2008 I became an electrical

craftsman and opted to continue my studies and do my degree. As a result of my studies, in November 2009 I was given the opportunity to shadow a plant electrical engineer and am still doing this today.

I am hoping my degree will lead to a more permanent position and allow me to further my career and progress up the ladder as I gain experience.

My next goal is the BEng (Hons) electrical and electronic engineering which I am due to start shortly and in ten years time I see myself serving as an engineer in a more senior role on site, but time will tell.

I am keen to express my gratitude to my line managers and DSRL for making my achievements possible and for allowing me to continue developing my knowledge and skills whilst doing a job I enjoy.

## John Moar - BSc Electrical & Electronic Engineering

I am an electrical plant engineer working for site decommissioning 'works delivery area'. The work is interesting and diverse and ranges from maintenance/ decommissioning support to leading small projects.

I am based in D1300 admin at present and have been on site for sixteen years. I originally started as an apprentice electrician in 1994 and moved to my present role in 2007.

My degree has given me some additional knowledge to help me in my current role and hopefully will also help my career progression on site. Studying again has given me a broader knowledge base, but primarily it has helped me to learn how to learn again!

I started my degree in 2007 and finished

it last summer. I started with an HNC qualification which I obtained during my apprenticeship and due to my level of work experience I was allowed to progress straight to my degree.

It meant fitting in a lot of extra work into my personal time which was sometimes difficult, but also rewarding and certainly paid off in the end.

I am very grateful for the opportunity to study for my degree with Dounreay's backing and not have to fork out for it myself. I now hope to progress to be an incorporated engineer through the IET- I just need the motivation to fill in the application forms!

## Lee Rainford – BSc Electrical & Electronic Engineering

I'm a trainee draughtsman working in Dounreay's design office.

I embarked on furthering my education in 2007 and although I found the workload very hard going at times there were many aspects of the course I enjoyed and got a lot out of.

I started work at Dounreay over seven years ago and am delighted to have finally achieved my degree and am looking forward to concentrating on other projects now that I have more free time.

I am hoping to use my qualification when applying to register with IEng, the Incorporated Engineer professional body.

I think my days of studying and going to college are done, but I'm sure this qualification will stand me in good stead and hopefully open up more opportunities for employment beyond Dounreay when the site shuts down. ○

# SHE Awards recognise outstanding work

Dounreay is holding the annual SHE Innovation Awards for the fifth year, and you are invited to submit your entry to the DSRL Assurance department.

They are open to all DSRL personnel, contractors or sub-contractors – anyone who is involved with the work on site.

The awards demonstrate Dounreay's commitment to safety, health and the environment by promoting

achievement, innovation and best practice on the site.

The winners receive a trophy, and a cheque for £1,000, with a further £1,000 going to their nominated charity.

The SHE Awards were first presented in April 2007, under the title of the Dounreay Director's SHE Awards.

## 2007

Winner of the Bill Fisher Trophy - **George Armour** (DSRL): George was nominated for his total commitment to safety and the many safety innovations he developed during his time at DFR.



Winner of the team award – the **Pulsed Column Lab decommissioning team** (DSRL and Doosan Babcock): The whole team contributed to the improvements made to the PCL, which improved safety, and saved time and money.



## 2008

Winner of the Bill Fisher Trophy – **Willie Swanson** (DSRL): Willie's initiative in developing a safety culture matrix to measure the site's changing behavioural culture won him the Bill Fisher Trophy.



Winner of the team award – **the shaft isolation project** (DSRL and BAM Ritchies): The shaft isolation project team identified the environmentally-friendly potential for reusing borehole cores as foundation hardcore on site. This, together with their excellent safety record over the duration of the project, won them the award.



# SHE Awards recognise outstanding work

## 2009

Joint winners of the Bill Fisher Trophy – **Davie Mowat** (DSRL) and **Alan Farquhar** (Morsons): Davie and Alan used their initiative to qualify as accredited training providers for vehicle and plant training, and now deliver training that is in line with national standards.



Winner of the team award – **D8550 final decommissioning project team** (DSRL and Doosan Babcock): The team completed an eight-year long clean up of the heavily contaminated building using methods proven in other industries, while maintaining an excellent safety record.



## 2010

There were two winners of the team award this year:

**PFR dirty dump tank decommissioning team** (DSRL, BNS and JGC): the teamwork demonstrated by everyone involved as well as their positive attitude to safety were instrumental in the success of the project.



**PCL glass column clean-up team** (DSRL, NDSL, Doosan Babcock and Nuvia): the team trialled an efficient and cost-effective method of decontamination in this challenging project, and developed a safe method of size-reducing the glass columns.



## 2011

This is your chance to get recognition for your teams contribution to the decommissioning of the site

### How to enter

The entry form can be found on the Dounreay Bulletin Board, or on the Intranet (form D355). Alternatively, ask your line manager or ATO holder.

To enter, simply complete the form, get it signed by your line manager and send it to Jacqueline Budge or Evelyn Clark in D2003/Zone 5. The closing date is April 30.

# Dounreay Workers Recognised at Award Ceremony

The National Skills Academy for Nuclear and Cogent Scottish Skills Council awards took place in March, and two Dounreay workers received awards.

**Gary Weir** won the Scottish HND Student of the Year award. He received his apprentice indenture last August, and is now working as an electrical craftsman. He is also a STEM ambassador and has attended various STEM projects throughout the area.

**Pat Kieran** won the Cogent award for Outstanding Leadership in Skills for his commitment to the Science Technology Engineering and Maths (STEM) Ambassador programme. He has supported the organisation of a number of local events to train STEM ambassadors, run by STEMNET Highlands and Islands. This has resulted in around 100 STEM

Ambassadors in the Caithness area alone. ○



Pat Kieran (in the car) with DSRL instrument apprentice Adam Matheson and Nuvia design engineer Farr MacDonald.

Gary Weir receiving his indenture certificate from MSP Jamie Stone

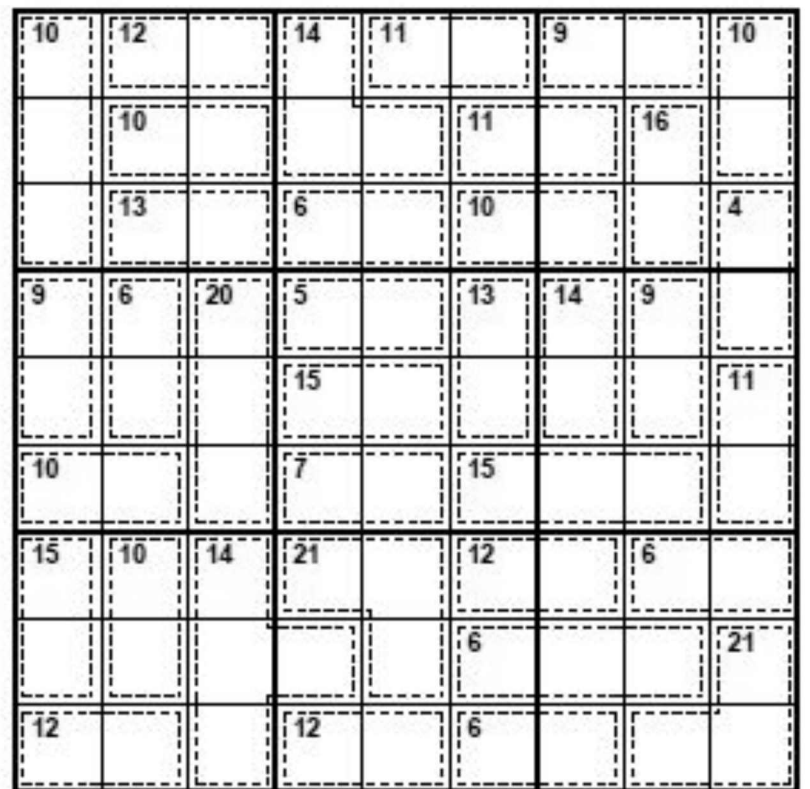


## Training at Naver

To arrange your training please check the training event calendar and SAP for dates, or call us at Naver on 01847 804735. ○

April	Course Title	Venue
1	Basic criticality	Dounreay
4	MEWP scissor	Ormlie
5	Site induction	Dounreay
5	Operational monitoring theory training	Naver
5	MEWP boom	Ormlie
6	Confined space operator	Dounreay
6	Basic radiological induction	Dounreay
6	Overhead crane refresher	Ormlie
7-8	Alkali metals handling training	Dounreay
8	Manual handling	Naver
11	Confined space management	Naver
11	MEWP scissor	Ormlie
12	Site induction	Dounreay
12	MEWP boom	Ormlie
13	Mobile towers (PASMA)	Ormlie
14	RPS refresher	Dounreay
14	Mobile towers (PASMA)	Ormlie
15	Emergency first aid	Dounreay
18	Banksman	Ormlie
19	Site induction	Dounreay
19	Rider pallet truck (Bagnal)	Ormlie
20	Basic radiological induction	Dounreay
26-27	Windmills	Naver
26	Site induction	Dounreay

## Sudoku



Place the numbers 1 - 9 exactly once in each row, column and 3x3 box. In addition, you must ensure that the various shapes that make up the puzzle contain values that sum to the number specified at the top left of that shape. For instance, if you see a '12' in the top left cell of a group of 4 cells, the numbers in those cells when added together must total 12, and you must not repeat a number within a shape. ○

Answers in next months issue

# + OHD BULLETIN +

## Cholesterol and Statins

The World Health Organisation (WHO) estimates that 80% of cardiovascular disease may be preventable. The good news is that simple lifestyle changes can really improve your heart health. OHD's **JulieAnn Bain** explains how.

An easy and effective step towards a healthy heart is to include cholesterol-lowering food in your diet.

Cholesterol is a waxy substance which is mainly made in the body. The liver makes it mostly from the saturated fats in foods (very little cholesterol is found in foods, except for eggs, liver and kidneys and sea foods such as prawns).

It is very important to the body cells, but too much cholesterol can increase your risk of getting heart and circulatory disease.

Cholesterol builds up on the walls of your blood vessels, like lime-scale furring up a water pipe. This adds to the risk of heart disease and stroke.

Cholesterols and proteins travel around the body in the blood circulation. These are called lipoproteins, and there are two main types - LDL (low density lipoproteins) and HDL (high density lipoproteins).

LDL carry cholesterol from the liver, through the bloodstream, to the cells. HDL return the cholesterol that isn't used, from the bloodstream to the liver. HDL is the 'good' type of cholesterol because it removes the 'bad' cholesterol from the bloodstream rather than depositing it in the arteries.

Triglycerides are another type of fatty substance in the blood, found in foods such as dairy products, meat and cooking oils. People who are very overweight, eat a lot of fatty and sugary foods, or drink too much

alcohol are more likely to have a high triglycerides level.

Coronary heart disease is caused when the coronary arteries (the arteries that supply the heart muscle with oxygen-containing blood) become narrowed by a gradual build-up of fatty material within their walls, which occurs when the level of the 'bad' LDL is too high.

Eating a healthy diet can help to improve your cholesterol levels. The most important thing to do is to reduce the total amount of fat in your diet, especially saturated fat (animal fat).

A good diet is one of the best ways to prevent ill health. However, if your cholesterol level is high, dietary changes on their own are not usually very effective at significantly lowering cholesterol and therefore medication may be prescribed by your GP.

Statins are medicines that reduce the amount of LDL produced by cells all over our body. Your doctor will choose the best type of statin and dose for you, depending on your medical history and your target cholesterol level.

The most common side effect of not taking a statin is a heart attack. For every person who reports a bad experience on a statin, there are hundreds of people whom a heart attack has been prevented.

For more information about cholesterol or statins, please contact OHD on 2187 and we will endeavour to help. ○

### For heart health:

#### Cut down on saturated fats

- Use unsaturated fats such as olive, rapeseed or sunflower oils and spreads.

#### Eat oily fish

- Omega-3 from oily fish can help to lower blood triglyceride levels. Helps prevent the blood from clotting.

#### Eat a high fibre diet

- Foods that are high in soluble fibre such as oats, beans, pulses, lentils, nuts, fruits and vegetables can help lower cholesterol.

#### Do regular physical activity

- This can help increase your HDL (good) cholesterol.



# Ministerial blessing for regeneration of area

Scottish Government minister **Jim Mather** has welcomed the regeneration programme for sustainable economic growth in Caithness and north Sutherland.

Caithness and North Sutherland Regeneration Partnership (CNSRP) have put together the three year plan which will focus on creating jobs in the business and energy sectors.

Over the past four years, 70 local businesses have committed to creating or retaining more than 500 jobs in the area. The new plan aims to support a further 400 jobs.

Mr. Mather said: "I welcome the work carried out by the Partnership which has added real value and contributed to sustainable economic growth in the area over the past three years.

"By prioritising resources, working together and focusing on business and energy sectors, the Partnership will help create new opportunities that will make a real difference to outcomes for people in the area."

The Partnership includes Highland Council, Highlands and Islands Enterprise, the Nuclear Decommissioning Authority and the Scottish Government. It was formed

to help address the effects of Dounreay's decommissioning on the area's economy and diversify the area's business base away from its dependence on Dounreay-related work.

**Sir Anthony Cleaver**, Executive Board independent chairman said: "We have made real progress over the last three years, and have identified the energy and business services sectors as offering us the best employment opportunities in the coming months and years. I am confident that we have the right resources in place within our partner bodies to go on and deliver positive results."

Councillor **Sandy Park**, convener of The Highland Council, who also chairs the CNSRP advisory board, said: "Caithness and north Sutherland is very well placed to take advantage of new offshore wind, wave and tidal energy opportunities - this must be a priority area for our efforts over the coming three years." ○



**"Caithness and north Sutherland is very well placed to take advantage of new offshore wind, wave and tidal energy opportunities..."**



The priorities for the Partnership between 2011-14 are:

- to work with existing area businesses in the energy and business services sectors to help them diversify and grow their businesses;
- to deliver a targeted programme of inward investment activity focused on energy-related opportunities such as marine renewable energy, oil & gas;
- to deliver a targeted programme of inward investment activity focused on business services-related opportunities such as data centres, contact centres and higher-skill back office functions;
- to support the delivery of key enabling infrastructure such as ports and harbours, road, rail and air transport, skills transition and digital connectivity.

## Green energy research centre completed

A landmark £3 million renewable energy research centre has opened its doors at North Highland College UHI in Thurso.

The Centre for Energy and the Environment will boost international development of the green economy in the area. Its also the new home for the college's Environmental Research Institute (ERI).

The new building houses laboratories and workshops, a video-conferencing suite and meeting rooms, and will sit alongside a new Engineering Skills Centre. Together, they will be the largest investment in

Caithness for over 50 years – marking its importance to the burgeoning renewable energy industry.

Principal of North Highland College UHI **Gordon Jenkins** said: "I would like to thank our contractors, Robertson Highland, for the way in which they have conducted the build with the least possible disruption to the college staff and students.

"The Centre for Energy and the Environment is a fantastic resource for the community and for the many industries which will be attracted to the North Highlands because of our rich renewable energy resources. We thank all of our funders for their

vision and for the confidence they have shown in us by placing the centre at North Highland College UHI."

ERI director Professor **Stuart Gibb** said: "Further development of the marine sector will create opportunities for educational provision and for aligned engineering research, and we are very well placed to deliver this. Our wonderful new centre will help us to increase our national and international profile in one of the most important industries for a sustainable future."

The Centre for Energy and the Environment was funded by Highland and Islands Enterprise,

the Scottish Funding Council for further and higher education, UHI and the European Regional Development Fund.

It will be the base for a £4 million marine renewable energy research project, known as MaREE (Marine Renewable Energy and the Environment) and led by the ERI, which will play a pivotal role in the development of this key industry for the region and Scotland.

**Professor Stuart Gibb is this month's 'Off the Record' columnist.** ○

# Project provides cash boost for school skills

A new £110,000 project investing in the future of young people locally has been launched in Caithness and north Sutherland.

The two year project is funded by DSRL, Highlands and Islands Enterprise (HIE) and the Highland Council, and will focus on the future needs of the engineering industry in the area.

The project will concentrate on S1-3 pupils in the technology departments of the four secondary schools in Thurso, Wick, Farr and Golspie, ensuring they are well informed before they make the subject choices that will shape their future careers.

**Stuart Tait**, a teacher of technical education at Wick High School, was recently appointed as the project's part time coordinator and will work with the four schools. Stuart has a strong background in industry, having previously worked for UKAEA and Kongsberg.

DSRL's socio-economic manager **Ken Nicol** said, "This is one of several projects we are supporting to help the area adjust to the loss of Dounreay and grasp the opportunities now emerging in the marine energy sector

around the Pentland Firth. We want to ensure that our young people have the necessary skills to work in this new sector."

The project dovetails with activities in the Caithness and north Sutherland Regeneration Partnership (CNSRP) Programme.

**Eann Sinclair**, CNSRP Programme Manager, said, "This is a great example of local organisations working together to help the area become less dependent on Dounreay-related work." ○



Dounreay STEM Ambassadors visit the local schools to encourage pupils to consider science subjects as a career. They also helped out at the Caithness International Science Festival 2011.

## Dialogue continues as bidders leave site

Members of the Babcock Dounreay Partnership and Caithness Solutions bid teams had their last planned week on site in March, visiting facilities on site and holding discussions with site personnel.

DSRL will continue to supply documents requested by the bidders to NDA. So far over 3700 files have been supplied since the start of informal site access in August 2010, and over 5200 files since provision of data started in May 2009.

The DSRL Competition Support Team and DSRL management would like to thank everyone involved for their continuing support to the competition and for promptly returning the requested

documents.

Following dialogue the bidders will be invited by NDA to submit their final tenders. The preferred bidder will be announced by NDA on November 29 and is expected to become the new PBO on March 30, 2012.

A management of change document and transition plan have been prepared to allow the transition to a new PBO to take place between December 2011 – March 2012. These documents will be submitted to the Dounreay

Nuclear Safety Committee in May.

As the transition will result in DSRL being owned by a different company, this is a high category change and requires the agreement of Regulators and the NDA as well as DSRL internal agreements.

The DSRL Competition Support Team contacts are **Mark Raffle** (x6670), **Rhona Gill** (x6067) and **Lorraine Lannon** (x6858), D2003 Zone 9, or email "dsrl competition support". Please get in touch if you have any questions. ○

## OFF THE RECORD

by Professor Stuart Gibb  
Director of the Environmental Research Institute (ERI)  
of the University of the Highlands and  
Islands - North Highland College

We hear much rhetoric on how our region may benefit from renewable energy, marine renewables in particular. For example, how the Pentland Firth being the 'Saudi Arabia of marine energy' may be 'the greatest untapped source of energy Scotland has ever had'.

But what reality lies beneath these grand, effusive statements?

With around 10% of Europe's wind and wave energy and 25% of Europe's tidal energy resources yet only 0.8% of Europe's population, Scotland is undoubtedly well placed to capitalise on opportunities in renewable energy and to play a leading role in the developing the so called 'low-carbon' or 'green economy'.

And, perhaps nowhere in Scotland is this opportunity greater than in Caithness. Here the Atlantic Ocean funnels through the dynamic waters of the Pentland Firth into the North Sea creating highly energetic tidal conditions that have attracted international attention.

Scotland has benefited greatly from energy 'booms' in the past, first from coal, then hydro and more recently from North Sea oil & gas.

Now our outstanding natural resources provide new opportunities as we seek to de-carbonise modern society. The Scottish Government highlights that 60,000 new jobs should be created in low carbon industries by 2020 in renewables, emerging low carbon technologies and environmental management.

In Caithness we are thus presented with great opportunity to play a leading role in the development of marine renewable energy and in doing so to re-energise the economic prospects of our region. The sector has the potential to generate new economic activity, create 'green jobs' and aid the transition of our local economy towards future prosperity.

But the reality is, that as always, the opportunities come with inherent challenges and this nascent sector is highly competitive, vibrant and global in nature.

Economically this region and its people should benefit through a sustainable and lasting legacy secured from its outstanding renewable energy resources.

But, if we are to receive long-term, tangible returns from the renewables sector, we must face up to the challenges it presents.

As a region we must commit to a clear, coherent vision with entrepreneurial spirit. Our businesses, stakeholders, educators and communities must all be bold in taking a stake in this emergent sector and do so with a sense of urgency.

This will be the first critical stage in converting the rhetoric of Caithness as a 'renewable energy powerhouse' into reality.

For information on how the ERI is contributing through research, knowledge transfer and education visit [www.eri.ac.uk](http://www.eri.ac.uk) ○

## “Quotable Quotes”

“The new directors have a wealth of experience from various senior roles in the global nuclear industry and will refresh the team with a new perspective to face the new challenges that lie before us.”

**Sellafield Ltd MD Todd Wright, on the reshuffle of the senior management team (The Cumberland News)**

“If something like that [transmutation, in which lasers cut down the half-life of radioactive waste] were to become successful, the facility must not preclude the option of retrievability.”

**Bruce McKirdy, NDA, commenting on the importance of retrievability from any new underground nuclear waste dumps to be built in the UK (New Scientist)**

“Officialdom is sleepwalking towards a situation which, unless avoiding action is taken now, will see commitments broken and a further trashing of the marine environment courtesy of Sellafield reprocessing.”

**Cumbrians Opposed to a Radioactive Environment (CORE) spokesman Martin Forewood, on the group's allegation that Sellafield's discharges are set to double due to the site's reprocessing programme (Guardian)**

“Too soon it was over. We'd travelled from the 1940s War Years into what is projected to be a Green Future World. Hanford isn't a theme park and its stark reality isn't for everyone. No photos. No cellphones. Bring your lunch. Eat on the bus. But the tour draws back the curtain from this once-secret enclave of scientists. Would I go again? In a nanosecond.”

**Freelance writer Jackie Smith, on the free tour of the Hanford site, once a landmark in America's nuclear history (The Seattle Times)**

“I have called on the chief nuclear inspector, Dr Mike Weightman, for a thorough report on the implications of the situation in Japan and the lessons to be learned. It is essential that we understand the full facts and their implications, both for existing nuclear reactors and any new programme, as safety is always our number one concern.”

**UK Government Energy Secretary Chris Huhne, on the lessons to be learned from the Japan earthquake and subsequent problems with the nuclear reactors (The Scotsman)**

“On the one hand we've got the Dounreay rundown, and we've got a fantastic talent pool of engineers and scientists there. Can we grab some of that knowledge and transfer it into this emerging new industry over the next decade and beyond?”

**Former HIE chief executive Sandy Cummings discussing the prospect of the offshore renewables industry coming to Caithness (John O'Groat Journal)**

To see these and more visit the communications homepage at: <http://dnotes6.ukaea.org.uk/dsrl/external-headlines.asp>

# STEM ambassadors 'speed date' to sell science to youngsters

A group of young scientists and engineers from a range of disciplines went on “speed dates” to encourage Highland students to think about science as a career.

Dounreay apprentices, engineers and chemists were among the group who visited high schools in Caithness and north Sutherland, speaking to around 300 pupils who are in the process of choosing their subjects at Standard Grade.

DSRL, Rolls-Royce, Johnson Controls and ERI manned stands providing the students with valuable information on local employers.

The engineers/scientists were hand-picked from a cohort of around 130 STEM ambassadors who have been recruited over the last few years in the county.

Their influence and help in the schools is growing steadily, as STEM clubs start up in the primary and secondary schools, doing a wide range of activities during school time and after school.

If you are interested in joining the scheme or starting a STEM club (with £100 start-up grant) in your local school, contact **Pat Kieran** at [pat.kieran@dounreay.com](mailto:pat.kieran@dounreay.com)

Last year, a major study by Centrica, the energy company, warned not enough school children were interested in a career in engineering, preferring instead to study media or popular culture.

Employers have been warning that the sector faces a skills crisis which may mean the UK is unable to compete on a global scale and take advantages of emerging economies, such as the low-carbon industry.



**Debbie Macdonald** explaining life as a chemist at the PFR Alkali Metals Lab to Wick High School students.



**Gavin Mowat and Audrey Chalmers** are a great team explaining their work as an electrical engineer and a chemist in the Dounreay labs.



**Duncan Carruthers and Jamie Spargo** talking about what it's like to be an engineering apprentice.

# TOPIC OF THE MONTH



## Safe Work at Heights

Dounreay's arrangements (STD 2001) have been revised to strengthen compliance with the Work at Height Regulations 2005. Work at height awareness training is now available for persons organising work at height; project, task and building supervisors, permit issuers, or similar.

Work at height is work in any place from which a fall from distance, liable to cause personal injury could occur; it includes:

- Access to and egress from height except by a staircase in a permanent workplace.
- Work on temporary working platforms at height.
- Work at or below ground level.
- Work requiring the use of personal work at height equipment.
- Work where items may fall from height or through fragile surfaces.
- Work at Height does not include slips, trips and falls on the level.
- Work at height is properly planned, organised, supervised and permitted.
- Work at height takes account of poor or adverse weather conditions.
- Work at height employs only persons who are trained and competent.
- Work at height is safe.
- Work at height equipment is appropriately inspected, maintained and fit for purpose.
- Risks from fragile surfaces are properly controlled.
- Risks from falling objects are properly controlled.

Contact Brian Miskelly – Senior Advisor (Work at Height) on ext. 6007 for information. ○

### Key requirements for Work at Height

- Work at height is properly risk assessed using a prescribed hierarchy of control.



## Nuclear news

### Uranium dating technique poses dinosaur extinction puzzle

A new uranium-lead dating technique used by a Canadian University on a fossilised dinosaur bone shows that dinosaurs may have roamed the earth 700,000 years after they were presumed to be extinct.

The research team from the University of Alberta published their results in *Geology*, the journal of the Geological Society of America.

The technique, which tests the ratio of uranium to lead in a fossilised bone, is more accurate than the method by which palaeontologists normally date dinosaur fossils.

If more samples show the same results, it may lead to a radical re-thinking of the fate of the dinosaurs, who are widely believed to have been wiped out as a result of a giant meteorite striking earth. (World Nuclear News)

### Nuclear bomb waste dumped in Teeside landfill

Residents are up in arms following the discovery that nuclear waste was dumped in a landfill site in Teeside.

The toxic waste was left over from UK weapons testing in Christmas Island in the Pacific, now part of the Republic of Kiribati.

The British military carried out nine atmospheric nuclear explosions during the Cold War.

Following an agreement with the Republic of Kiribati, the MOD removed the waste and disposed of it to a landfill site near Stockton.

A spokesman for the landfill operator said that the waste contained such low levels of activity that it had been classified as exempt. (Evening Gazette)

### Canadian battle to block shipment of nuclear generators

Environmental groups are going to court in Canada to block the shipment of 16 nuclear generators from an Ontario nuclear plant, through the Great Lakes, and on to Sweden.

The shipments could travel through the Pentland Firth on their journey to Swedish firm Studsvik, where they would be cleaned up.

The move is also opposed by political parties and community organisations along the route, although the Canadian Nuclear Safety Commission insists that thousand of radioactive medical isotopes travel this way every year. (CTV News)

### Particles found on Cumbrian beaches

Two radioactive particles found on beaches near Sellafield in December last year are causing concern to local councillors.

The particles, which are alpha-rich, are the latest of more than 1,200 radioactive items detected by the Sellafield beach monitoring programme which has been running since 2006.

Local councillors criticised the lack of information available to the community. (News & Star) ○



# SUE'S NEWS

In March, Dounreay said goodbye to:

- **Graham Potter**, who moved to the oil and gas industry;
- **Doug Shanks**, retiring after 27 years on site;
- **Arthur Disbury**, after more than 45 years on site;
- **John Disbury**;
- **Lindy Lockhart**, after over 21 years on site;
- **Nancy Foggo**;
- **Kerry Mackenzie**, leaving to be a full-time mum;
- **Malcolm Clasper**, after more than 44 years;
- **Donnie Mackenzie**;
- **Avril Ross**, leaving to become a mature student;
- **Jim Campbell**;
- **Billy Mitchell**;

Many people will also have known **Martin Harrop** who sadly died at the beginning of March.

At the end of April, the Royal Bank of Scotland will be withdrawing their banking facility from the site. You should be aware that this will mean that the cash machine will also be withdrawn.

**Jon Hanrahan** sent in a photo of his fiancée **Konokwan**, reading Dounreay News on a recent visit to Thailand, in front of the Gold Bangkok Temple. They got engaged while in Thailand, so congratulations to them both.



**James Robertson** donned his Batman suit to raise funds for Comic Relief. After a swoop round PFR he raised a total of £280.



An awards ceremony was held at Naver in March for DSRL electrical personnel who were successful in completing City & Guilds courses in electrical skills.

DSRL deputy MD **Tony Wratten** presented the awards while Neil Buchan, DSRL Chief Engineer, and **Louise Mclean** from Naver training looked on.

DSRL's former Senior Authorised Person (electrical) **Malcolm Clasper** attended the ceremony as his final task before retiring.

The formal qualifications are necessary for electrical staff working on the Dounreay site, including contractors, who carry out inspection and testing, or are involved in the design of electrical installations in support of the site decommissioning programme. ○



## DSRL IT Services Tip of the Month

### Excel-lent Lists

Excel makes working with sequences extremely easy. It recognises common lists such as days of the week and months of the year. For instance, if you enter "Monday" in a cell, just hover over the bottom right-hand corner (until the cursor changes to a thin cross) and drag down (or across). The sequence will automatically complete. You can also add your own custom lists via the Excel options. ○



## Answer to Word Search puzzle



Dounreay News is edited by: Sue Thompson, Dounreay Communications  
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