

AUGUST 2011

DOWNREAY NEWS

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ON THE RECORD

by **Simon Middlemas**
DSRL Managing Director

In November, the Nuclear Decommissioning Authority will announce the next "parent body organisation" of DSRL.

There's two contenders – Babcock Dounreay Partnership and Caithness Solutions.

The business world will get excited – it's a big contract - but what will this mean for people on the ground at Dounreay?

It will take some time for the new owners to settle in. A few faces will leave – people like me who belong to the current parent body – and some new faces will come in.

Things won't really be any different for a while.

The new team will inherit all the existing programmes, practices and procedures of DSRL.

They'll have ideas to improve these, to bring down costs and timescales even further.

These will take time to go through the normal process of scrutiny and regulatory approval after the new team takes up their posts in early April.

Expect to see a new vision for site closure, too, and probably more certainty around dates and manpower projections.

The mission won't change – to close down this site as quickly as the available funding will allow, without harming anyone or anything.

That's what we've all been focused on the last 10 years and that's what the new owners will want you to keep focused on, too.

There should be more certainty about how much life is left in the site and that will help everyone to plan their own future.

We'll be hearing more about the competition for DSRL over the coming months as the process nears a conclusion. Some of the business language used can be bamboozling.

My message to you is clear – carry on doing the great job you are doing and keep doing it safely. It's in everyone's interests. ○

Alex spends £20m on world's biggest Swiss Army Knife

It's been dubbed the most sophisticated Swiss army knife ever built.



A 16-piece tool designed to reach deep inside one of Britain's earliest atomic experiments and harvest the nuclear material that once promised to revolutionise how the nation generated its electricity.

Measuring 40ft in length, each of its tool-bits has been designed to withstand the harsh operating conditions inside DFR.

The reactor shut down in 1977 after almost 20 years of experiments and its decommissioning is allowing energy bosses to reap the last of the plutonium and uranium from its unique "breeder" zone.

A custom-built retrieval arm will spend three years inside the reactor vessel, carefully cutting free 977 metal rods standing vertically in a hexagonal rack around the near-empty core.

Each rod will be cut free from its mounting and transferred to a waiting basket, ready to lifted through the roof of the reactor and returned to the outside world after 50 years

French engineers designed and built the tool needed to do the job safely at a cost of £20 million.

It has now been moved into position above the reactor, ready to descend into the darkness of the reactor vessel below and begin harvesting the valuable metal.

"The reactor was a one-off design and so is the tool we need to take out the breeder rods," said **Alex Potts**, the DSRL engineer in charge of the project.

"It's too toxic in there for anyone to do the job manually – the radiation levels are still very high and the residual traces of liquid metal coolant add to the hazard – so we need a tool capable of doing the job by remote control. It's a pretty sophisticated version of a Swiss army knife the team came up with."

Each detachable tool-bit cost £100,000, weighs between 37-93kgs and covers the range of equipment needed to retrieve the metal rods – grabs, manipulators, milling and cutting.

Up to three tool-bits will be in use at any one time and can be replaced by another three carried in a special tool-box without needing to remove the tool itself from the

depths of reactor. The rest of the tool-bits will be stored above the reactor, ready to be swapped during service and maintenance breaks.

Special radiation-proof cameras and spotlights will guide operators working around the clock in a control room 20 feet above in the sphere.

The operation is expected to take three years to remove the rods from the breeder zone around the core and the single remaining fuel pin stuck in the core.

An animation showing how the tool will work can be viewed on the Dounreay website.

Some 2,000 rods surrounded the core when the reactor operated between 1959 and 1977. Over half were removed after it shutdown but 977 were left in place. Some had become jammed and a shortage of storage space at the site delayed their removal.

Now, with the site being razed to the ground, the rods need to be removed before the rest of the reactor can be dismantled safely. ○

Send your stories to the editor at:



sue.thompson@dounreay.com

New flask signals major progress for DFR

Vital testing equipment to be used in the removal of the highly hazardous material from the bowels of DFR has been delivered, marking further progress for the shutdown of the site.



The white metal Magnox flask resembles a huge box shaped radiator and will be used for future storage and possible transportation of the breeder material from DFR.

The flask will be used for commissioning the flask leak

testing. This is an essential piece of kit to ensure the flask is secure and safely sealed before the breeder removal work begins in a new state of the art purpose built facility.

DSRL's senior project manager **Alex Potts** explained:

'Decommissioning DFR is one of the top priorities in the UK for the NDA. The safe removal of this hazardous material is crucial to the site's closure programme.

"Dismantling DFR has presented DSRL with many

unique challenges over the years and the team of staff and contractors involved remain totally committed and are working hard to ensure they are ready for the next phase of taking apart the fifty-year-old reactor." ○

DSRL to spend £700k to benefit local economy

DSRL has allocated almost £700,000 this year for projects to help the economy of Caithness and north Sutherland adjust to site closure.

The scope of work is laid out in the site's annual socio-economic plan published on the DSRL website.

The money will be spent on supporting projects that will benefit the economy through training, workforce transition and encouraging

opportunities that will bring socio-economic benefit to the area.

The programme is funded by the NDA, who

separately made £4million available to support projects in the area. ○

Army cadets get CNC treatment

A party of Caithness Army cadets paid a visit to the Civil Nuclear Constabulary recently.



The cadets, from Castletown detachment, were shown round the Dounreay command and control building by CNC community liaison officer Sgt. **Dave Hardie**, before watching a demonstration by two of the force's police dogs.

"Our training programme requires a visit to a local emergency service each year," said detachment commander

Bryan Dods.

"The cadets suggested we visit the CNC as they were curious about the force's role and any future employment prospects."

Cadet instructor **Gordy Galloway**, more usually found doing health physics duties at DFR, was particularly interested in the various weapons used by CNC officers.

"Target shooting is a major



part of our training," explained Gordy. "Our cadets are taught how to handle firearms with respect from an early age, and it was good for them to see how the professionals handle the tools of their trade."

Cadet L/Cpl **Chelsey Paton** was very impressed with the tour. "The CNC have a really serious job to do, but were all very enthusiastic and helpful to us," she

said. "We gained some really useful information about Dounreay and the CNC."

Caithness company of the Army cadet force is currently recruiting adult instructors.

For more information contact Bryan Dods on extension 2574 or phone company HQ on (01847) 893868. ○

Nuvia take to the waves with particles barge

Summer hotspots took on a whole new meaning for a group of health physics staff from Dounreay.

The Nuvia staff were among 22 people who spent several weeks working offshore on a temporary platform looking for particles on the seabed.

The nine-week mission yielded 351 fragments from the sediment.

They worked up to a week at a time on the 60-metre barge, which was equipped with its own accommodation modules, recreation area and galley.

Nuvia's team provided the specialist radiation expertise to main contractor Land and Marine.

This involved operating the radiation detection equipment on board the ROV that criss-crossed an area of seabed equivalent in size to 36 international football pitches.

They also handled the retrieval and segregation of particles when the ROV returned to the surface and its containers were unloaded.

Their stint offshore came to an end on July 3, when the team had covered almost 50 per cent more of the seabed than originally planned.

Next up for the barge and Land and Marine crew was a contract on a sewage outfall offshore at Brighton. ○



Nuvia workers Michael Williamson and Mark Gibson unload the containers of sediment and particles from the ROV aboard the Land and Marine barge. Other Nuvia staff stationed on the barge included George Fairweather, Roy Turnbull, Stuart Liddle, Davie Bruce, Stuart Chalmers, Phil Linthwaite and Tom Kell

Downreay in the media spotlight

Nuclear energy is back in the national spotlight – and Downreay is helping the nation's media to inform the public what it's all about.

Two BBC film crews and the Big Issue have been to the site in recent weeks to learn more about the decommissioning and waste management side of the business.

Bang Goes the Theory, the science-made-interesting show on BBC1, spent two days in and around the site.

Presenter **Dallas Campbell** recorded clips on the offshore particles barge, at Sandside Beach, inside the DFR and breeder removal building, and the WRACS low-level waste plant.

Reactors decommissioning boss **Mike Brown** was among those interviewed.

"It was an opportunity to show a national audience how we decommission a site like Downreay and look after the waste it creates," he said.

The next series of *Bang Goes the Theory* begins this month.

Meanwhile, BBC1's *One Show* also turned to Downreay for help with the nuclear energy story.

Amidst claim and counter-claim about the impact of nuclear



energy on the environment, the show sent a team to Downreay to find out what the environment of a nuclear site is actually like.

Camera-traps were installed last month to capture some of the wildlife that shares the site.

DSRL's **Simon Cottam** explained how the industry's

relationship with the environment has changed hugely over the decades, just as it has in most other industries.

Now, projects such as wild flower meadows near PFR to provide a habitat for a threatened species of bee are part of site restoration work. ○

DSRL COMPETITION UPDATE

Bidder access to the site is now complete, with the final visits and teleconferences which took place in mid July.

Bidders are expected to submit their tenders to NDA in late August, and the winning bidder will be announced in late November 2011. There will be a transition period from mid December 2011 – late March 2012 when the new Parent Body Organisation (PBO) secondees will receive handovers from the current PBO. The new PBO secondees take up their posts at the point of Share Transfer which is now expected to be in early April 2012.

Between now and the start of the transition period there will be a number of presentations, information rooms and other communications. These are to provide more explanation about what will happen during the transition period and give opportunities for questions.

A Q&A brief is now available on the Intranet under Useful Pages/DSRL PBO Competition. The competition rules found on the same pages continue to apply.

The DSRL Competition Support Team contacts are **Mark Raffle** (Tel 6670) and **Rhona Gill** (Tel 6067) D2003 Zone 9, or email "dsrl competition support". Please get in touch if you have any questions.

To ensure that only work formally agreed with NDA is carried out, all requests for competition support should be routed through this team. Please let the team know if you are asked directly by NDA, bidders or anyone else to carry out any work connected with competition. ○

North Trade Unionists in regeneration call

Downreay workers were among a group of Trade Union representatives who flew the flag for Caithness and North Sutherland at the recent STUC Highlands and Islands Conference in Inverness.

Speakers from the north spoke of the challenges facing the area, such as the decommissioning of Downreay, the future of the MoD Vulcan site and the threat to the HMRC

office in Wick.

Opportunities being taken forward through the Caithness & North Sutherland Regeneration Partnership to help the area's workforce move into alternative employment were also highlighted.

Photographed with their copies of the Caithness & North Sutherland Vision document during a meeting with Inverness Provost Cllr. **Jimmy Gray** at the conference are north delegates (from left): **Alan Tait** (PCS); **John Deighan** (Unite); Cllr. **Gray**;



Thelma Mackenzie (Prospect); **John Crowden** (Unite); **Ian Grant** (Prospect). ○

NDA's Annual Review and Accounts 2010/11 published

The NDA has published its Annual Report & Accounts for 2010/11, outlining the considerable progress in the decommissioning and clean-up mission.

Chief executive **Tony Fountain** said: "It's been a year of good performance, hitting targets that show concrete progress against our tasks.

"But it has also been a year in which critical steps have been taken to allow us to focus on delivery over the years ahead."


A revision of the NDA's working model including a restructuring of the teams, paring down bureaucracy and conferring greater authority on team members as well as using the "delivery through others" principle to devolve greater responsibility to the SLCs is highlighted by the chief executive as a contributor to a successful year.

John Lawes, NDA contract manager in the SLC-facing team said: "Here at Dounreay the new

arrangements have underlined our delivery focus.

"It was very pleasing to see progress at this site, particularly in respect of the NaK destruction plant and the DFR decommissioning project, highlighted as key achievements within the NDA estate."

The NDA's Annual Report and Accounts is available online from the NDA website www.nda.gov.uk and a special edition of the NDA's corporate magazine, *Insight*, has also been published summarising some of the year's key achievements.

The special edition *Insight* can be downloaded from the DSRL or NDA website. 

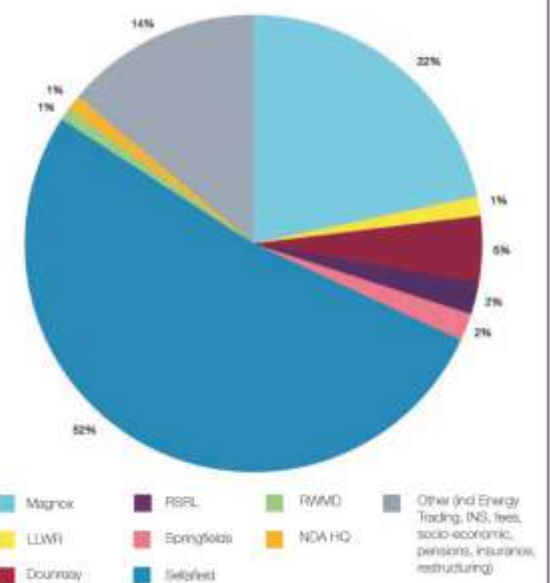
Expenditure

Following the Spending Review settlement, the NDA's annual expenditure is around £3 billion annually for the next four years.

The reduction in support and overhead costs, the optimised plans and other initiatives combine so that a higher proportion of the NDA's funding is spent on the essential new construction programme needed to ensure progress continues on the core hazard reduction programme.

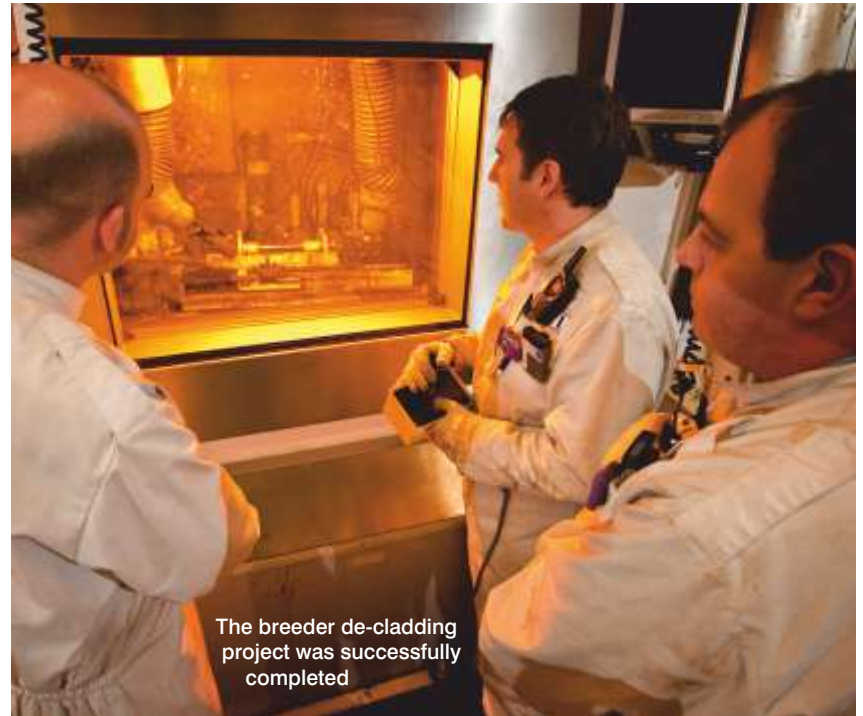
We kept our expenditure within our budget of £2.9 billion while ensuring that key areas of our programme were prioritised, delivering more work than planned for less cost.

Allocation of expenditure by SLC



The new NDA programme director for Dounreay, **Nigel Lowe** (pictured left), visited the site in July to familiarise himself. He visited facilities in the NDA, and is pictured being shown around by decommissioning manager **Steve Beckitt**.





The breeder de-cladding project was successfully completed

“Dounreay has turned in an outstanding performance on the destruction of the sodium-potassium (NaK) coolant, the largest single hazard left over from the fast reactor research programme and the second highest hazard in our estate.” – **Tony Fountain.**



Capping the main stack brought to a conclusion the new FCA ventilation project

“The contract award for the first phase of construction work on the low level waste facility (adjacent to the Dounreay site), following planning consent, also signals excellent progress.” – **Tony Fountain.**



Decommissioning continues in the D1200 Labs

“In a year of significant change on and off the site, it's great to see decommissioning delivery continuing to improve with matching safety and environmental performance.” – **Simon Middlemas.** ○

Young engineers take on summer work at Dounreay

The latest engineering students sponsored by DSRL came to site in June for a summer work placement. *Dounreay News* editor **Sue Thompson** visited them to see what they were doing.

Graeme Gray: (working with Neil Smith, Fergus Keddie and David Anderson)

I have just finished an HND in engineering systems and plan to do the Electrical and Electronics Degree at UHI (North Highland College). My placement, in the site electrical distribution section, covers the operation and maintenance of the 11kV HV and primary 415V LV systems, across the Dounreay and Vulcan sites. To date, I have been involved in the maintenance of HV switchgear and site standby generators, and in particular the repair of D1401 generator 2. This placement has given me the opportunity to gain hands-on experience of the type of equipment I have previously only read about in textbooks.



UHI (North Highland College) won the "Partnership Award" at an awards ceremony in Glasgow for Scotland's Colleges, for the highly successful sponsored engineering programme, run in partnership between DSRL and NHC.



Heather Ross: (working with John Smith and John Sibbald)

I have just finished HND engineering systems and going on to do the Electrical and Electronics degree at UHI (North Highland College). Here at Dounreay I am involved in calculations to specify cables that need to be used in the new SID mess hut, going out to see the buildings and being able to see what needs to be considered and why. I am also doing research into what lightning protection systems there are out in the market and whether they would protect PFR including SID, and if they would still protect the buildings when parts come down in five years time. I am here on site for five weeks and am learning a lot which will help me in the future as calculations are a main part of the electrical trade especially for designing.

Gregor McLean: (working with Steve Cashmore)

I am a DSRL sponsored student and I have recently finished my HND Engineering Systems and am awaiting my results. With a pass from my HND I can progress to the degree level of Mechanical Engineering. I am on a six-week placement at PFR, which I'm finding very interesting and useful towards my mechanical engineering career. So far, I have been placed with **Gideon Buxton** who has taught me about pipes, tubes, threads and flanges. I have been shown around the caves by **Norman Arrowsmith** and his team; they have explained and shown me the whole process of moving a can from the pond and processing it for waste. As a project for me to work on in my time at PFR, I have been given the task of comparing two different makes of manipulator jaw, solving the problem of one of the jaws sticking and calculating which would be more cost effective in the long run.



Young engineers take on summer work at Dounreay



Michael Aitken: (working with Mike Tait and Brian Grant)

As a graduate student completing the BSc in Electrical and Electronic Engineering at UHI (North Highland College), I have experienced numerous control and instrumentation techniques using software to control hardware devices. Examples of these are using programmable ladder circuits (PLC's) and digital microprocessors controlled by C++ language. Being placed at the Low Level Liquid Effluent Treatment Plant within the D3000/D3001 complex, I have had the opportunity to see much of the simulation exercises and techniques used within a live, working situation. I also saw a number of the calibration exercises which I took part in within a more purposeful situation as well. This was good for me as it meant that the knowledge gained through my studies could be used in a practical manner.



Drew Murray: (working with Bruce Manson and Aly Mackay)

I have recently completed my HND Mechanical Engineering Systems at UHI (North Highland College). I will go on to do my degree starting in September this year. In my six-week placement I am working alongside project engineers. So far I have been collating video footage from reactor camera inspections and putting it all together as an interactive presentation. I have also participated in project activities such as HAZOPs and option assessment. I have been offsite to see mock-up trials of the new low level waste size reduction facility.

Alan Farquhar: (working with Ally Webster)

I am a student from UHI (North Highland College) and a sponsored student of Dounreay. I am working with the Instrument Team for DSRL, I am really enjoying it and now contemplating doing my degree in instrumentation. Opportunities on the student sponsorship scheme are great as you are able to achieve a high academic standard and do a practical placement in the summer. I find that having worked for five years before my studies I am prepared for working life at Dounreay and find it easy to adapt. I couldn't have asked for a better placement.



Greg Cormack: (working with Bruce Manson and Aly Mackay)

I have just completed my HND in Engineering Systems through UHI (North Highland College) and will be looking to continue my degree in Mechanical Engineering when the course resumes in September. In my six week placement at Dounreay I will be shadowing a project engineer as part of the reactor decommissioning team. I have been looking at sodium inventory arisings, researching stored components for size reduction and also collating footage for a video presentation. So far I have found the experience at Dounreay has been very interesting and valuable.



+ OHD BULLETIN +

A personal guide to festival safety

Festivals are full of fun-loving people who want to have a good time. The whole point of a festival is the joy of people experiencing music together, but they can also be targets for thieves and opportunists.

Research shows that among the 21% of British public who have visited a music festival, the majority felt safe there, despite recent stories of security and safety problems.

The most common crime is theft from (or of) tents. But assault, including sexual assault is not uncommon.

Here are a few tips for staying safe at festivals;

- Don't take valuables with you and if you do, don't keep them in your tent, or leave them in your car, and check on your vehicle during the festival
- Check your mobile is charged each day – larger festivals may have recharging facilities on-site
- Never leave friends on their own and don't wander off by yourself. Organise a meeting point with friends in case you get split up
- If you need to bring medicine, keep it with you. Take some over-the-counter medication with you for stomach upsets or diarrhoea and remember antiseptic cream is good for bites, stings and cuts
- Never leave your drink unattended, as even soft drinks can be spiked. Don't ruin the weekend for yourself and others by drinking too much too quickly
- Remember, alcohol or drugs can affect your ability to make safe judgements
- It's always important to have sunscreen of SPF 15 or higher and antiseptic



hand gel is handy to have at outdoor events.

Alcohol and festivals may go hand in hand but that doesn't mean you need to be drinking from start to finish. If you drink alcohol, drink sensibly and stick within the recommended limits.

Alcohol is a diuretic, meaning that it encourages the body to lose more water than it takes on by halting the production of the body's anti-diuretic hormone. This means that you feel the need to urinate excessively, therefore, speeding up the loss of fluid from the body that leads to dehydration.

Dehydration caused by drinking can affect the balance by draining potassium from the body, resulting in thirst, muscle cramps, dizziness and faintness. Alcohol can irritate the stomach causing upset, often leading to vomiting; it can cause inflammation of the oesophagus, causing heartburn;

and it can also affect your bowel movements, often causing diarrhoea.

Sadly there is no guaranteed way to cure a hangover, as a great deal depends on the amount of drink consumed, as well as factors like your body size, height or metabolism.

Everyone has their own idea about how to deal with a hangover, here are a few basic tips;

- Drink plenty of water, preferably during your drinking session
- Eat well before you drink. - go for food that takes a long time to digest, such as bread, potato and pasta
- Try not to mix your drinks as you're only adding to the number of toxins that your body has to deal with
- Pace yourself and know when enough is enough
- A 'hair of the dog' drink might help blunt your headache, basically by making you drunk again, but all you're doing is delaying the inevitable alcohol come-down

Festival organisers want everyone to have an enjoyable time, but at the same time are warning people to stay safe. So look after yourself and each other and make it a weekend to remember for all the right reasons. ○

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Graduates are being offered exciting opportunities to expand their business experience through paid placements with local firms across the Highlands and Islands. Organisations from a range of sectors including food and drink, renewable energy, and software development are amongst those offering posts which will offer valuable experience to graduates and support their own business development. The work is part of the TalentScotland graduate placement programme, supported by Highlands and Islands Enterprise (HIE) and the European Regional Development Fund (ERDF).

A new report outlines how Caithness and North Sutherland businesses could benefit from working more closely together to create an area wide tourism identity. The report by Tourism Resource Company and commissioned by HIE recommends that creating a leadership team and local tourism development groups would provide joined up information on services and boost marketing power. Tourism in the area is worth an estimated £35.2 million.

HIE and DSRL have jointly funded a study to assess the updated socio-economic impact of Dounreay decommissioning. This will draw on existing data from 2006, offering a picture of how the area's economy has changed in the last five years.

Marketing materials on the area's three harbours with marine energy potential have been produced by HIE and Scottish Development International (SDI) for use in discussions with potential inward investors. HIE has published separate marketing materials designed to provide outline information on the area's capabilities in the energy and business services sectors, covering key areas such as infrastructure, research and skills.

Wave energy developer Aquamarine Power has revealed the latest in leading edge hydro electric wave energy technology - the full-scale Oyster 800kW device built at Burntisland Fabrications yard in Methil, Fife. The Oyster 800 can generate 250 per cent more power at one third of the cost of the first full-scale 315kW Oyster device (Oyster 1), which was installed and grid-connected at the European Marine Energy Centre (EMEC) in Orkney in late 2009. The first Oyster 800 will be transported by sea to Orkney for installation, with another two being deployed in 2012 and 2013, linked to an onshore hydro-electric plant.

Simon puts job creation skills to work

Former PFR decommissioning boss Simon Coles is helping Highlands and Islands Enterprise bring new jobs to the area.

Chartered engineer Simon, general manager of the Babcock Forss office, has been seconded to HIE to grow inward investment opportunities.

He will be working closely with local partners, the recently established Caithness Ambassadors and other government agencies including Scottish Development International.

Simon says he is keen to look at how closer links between the private and public sector could help provide a more rounded view on creating opportunities to develop the future economy of the area.

"Caithness and North Sutherland has many opportunities and two of the main ones are in the areas of energy and business services; both sectors we have a strong history in supporting. These sectors are quite broad and we need to focus on well defined opportunities within them," said Simon.

The secondment is for a year and Simon hopes he can bring some additional structure and momentum in the delivery of inward investment activities.

"The private and public collaboration is valuable for the economic development of the area. By



Simon Coles, left, pictured with Roy Kirk

bringing the skills and resources of both together we can ensure we develop projects that will deliver the best benefits."

Simon is a member of the board for Decom North Sea, which was established with HIE, Scottish Enterprise and the Department of Energy and Climate Change to support the decommissioning supply chain. Locally he is involved with the Pulteneytown Peoples project.

A chartered engineer, he is a member of the Institution of Mechanical Engineers and the Nuclear Institute. He has a degree in nuclear engineering from Manchester University and a masters degree in business administration from Cranfield University. He is a member of the Chartered Management Institute and has worked at Sellafield and Dounreay

NES relaunched as part of Texas company

Bower-based NES Engineering has been re-structured, and re-launched as Numax Energy Services Ltd, part of the Texas-based Numax Group.

Eight staff were made redundant, but following the securing of an order for German company Bauer Renewables the company is recruiting staff, with employment at the Bower site up to 25.

Numax has also acquired a Cheshire-based company, Carbon Composites, which it will be relocating to Caithness, creating further jobs.

NES is also tendering for work in West Africa.

in project and engineering management roles.

Roy Kirk, HIE area manager for Caithness and North Sutherland said: "Babcock, as one of the largest employers in the area, has a good overview on what attracts the private sector.

"We want to further develop a climate for private companies to flourish. This type of interaction allows us to have a direct link into a number of developments that are happening in the private sector and to continue to diversify our economy to encourage businesses to locate or grow here. We also see the opportunity to develop our learning in new ways and new approaches to working."

Local boy brings jobs to Caithness

AMC Engineering Ltd, whose head office is at Findon just outside Aberdeen, is set to expand their Caithness division by building a new workshop at their site outside Lybster, with the assistance of a grant of £76,250 from Highlands and Islands Enterprise.

Managing Director **Andrew Polson**, who hails from Caithness and whose parents still live on the family croft at Smerlie next door to the company's workshops, explained that the skill and application of the local work-force was a key factor in deciding to site the new workshop in the north.

He said: "The work we do, manufacturing a range of high-precision torque equipment for the global oil & gas industry, is highly specialised and it is a tribute to the quality of the Caithness workforce that we have decided to locate this investment here. The project will help us supply our new sales and service base in Houston, Texas, and set us up for our further expansion into the Pacific rim and the Middle East."

Andrew, who moved to the Aberdeen area and started with AMC in 1994, took over the firm when the

previous owner retired in 2004, and has since driven its rapid expansion to become a multi-million pound business with customers around the globe.

HIE area manager **Roy Kirk** said: "AMC Engineering is exactly the type of company we want to see growing in

our area, building on the county's reputation for excellence in engineering, and providing local people with real employment opportunities. As a native Caithnessian now living in Aberdeen, Andrew has been

involved with our Caithness Ambassadors programme which aims to promote inward investment into the county, and with this development he is clearly putting his money where his mouth is by choosing Caithness as the site for this expansion."



Inspecting the new workshop; from left, David Gunn, David Sutherland (Gunn), Andrew Polson (AMC) & Keith Muir (HIE)

No Boston Tea Party

In a sequel to last month's article about Boston Camp, crofter and historian **Alistair Fraser** recounts the life of the camp's canteen, where he worked as a lad during the weekends and some evenings to earn pocket money.

"The day that Mexico gave up the rumba, to do the rock-and-roll," crooned the radio in the corner. It didn't stand a chance.

"We need more tatties," "Get someone to mash more turnips," "We need more plates" - these, and many more colourful demands and requests drowned out every other sound.

The reality is there was no beginning or end to the canteen day. At its peak, over two thousand men lived at Boston Camp. They were fed three times a day, breakfast, lunch and dinner. Other non-residential employees also used the canteen facilities, swelling the numbers.

The staff of forty came from various parts of the county, and were transported back and fore every day. A few, including most of the cooks, lived on the camp. Starting times were staggered to ensure twenty-four hour cover.

Before we look at a typical day, it is worth remembering that this was long before the introduction of mass produced frozen meals and convenience foods. Then, everything was cooked from scratch.

Meat came in half-carcass form, from Grants of Dornoch, and two butchers prepared the various cuts, roasts, stewing and mince meat. Fish, fresh from Thurso, came ready filleted, and was deep-fried in batter. Bread came from Burnett's Bakery, Inverness, by the van-load every second day, milk, in twenty-gallon churns, was delivered daily from Scrabster Farm, and a variety of wholesalers delivered a wide-range of catering commodities.

Vegetables and potatoes all had to be prepared. Potatoes were peeled by a drum machine whose internal side resembled coarse sand-paper. As the drum sped round the potatoes were flung against the drum side stripping off the peel. Chips all had to be cut by hand. Just imagine it, two thousand portions of chips, please!

Roasts were cooked in large, coal-fired ovens. The roasts were

generally cooked overnight with the night staff responsible for taking them out at a specific time. On a few occasions they forgot, resulting in burnt offerings, and on other occasions the roasts were removed too early and were somewhat underdone.

Preparation for breakfast commenced the previous evening with the bacon and sausages laid out on large trays. The smoked Polish bacon, complete with rind, came in their original carcass lengths, and had to be sliced. The sight of over two thousand rashers

The sight of over two thousand rashers of bacon and a similar number of sausages was, as Burns said of the haggis: ".a glorious sight"

of bacon and a similar number of sausages was, as Burns said of the haggis: ".a glorious sight".

It would now be around midnight and the night-shift would be in full swing. Some would be cleaning up from the previous day, others would be preparing sandwiches and tea, in 10-gallon dispensers, for transporting down to site for those working through the night, for example the tunnel squad, whilst another group would be getting things ready for the incoming dayshift, including preparing the porridge.

Soup, porridge, mince, stew and the various desserts were prepared in 100-gallon stainless steel lidded-kettles. The cook got up on steps and used what would be best described as a small oar for stirring.

The baker, Bill Robertson, would also have come on duty to bake the morning rolls, and sausage rolls for the cafeteria, a

separate facility, that was open in the evening. Bill, a native of Wick, was a keen member of Rosebank bowling club.

At half-past five, the early shift staff would appear. Their priority was to cook the bacon and sausages, and fry the eggs. Now the frying of the eggs required not only cooking, but also choreography skills. They were cooked in a bank of four fryers that would each take up to twenty eggs. By the time they had cracked the last egg in the four-fryer sequence it was time to take out the first one. It meant that the quality of the finished article depended on the heat of the fat, and the speed by which the cook cracked the eggs and moved around the fryers. Little wonder it was not unusual to find a rubber-hard egg nailed to a dining-room wall.

The large dining-rooms consisted of wooden tables that would seat four to six people per side, with forms for seating. On the bare tabletop was placed a couple of loaves in their original packaging, bowl of sugar, bottles of brown and red sauce, salt and pepper and a plate of margarine.

Workers queued at the serving hatches, picked up a tray and uplifted their various courses, including tea from a choice of urns. If for any reason service was slow, or there was a wait for another pot of soup to arrive, the whole world knew about it, a hundred or so metal trays drumming against the nearest object made sure of that.

Memories? The canteen was certainly a crossroad of the world. You came in contact with nearly everybody who resided on the camp, and of course they reflected all shades of humanity, but the abiding memory is of people who were there to do a job, and made the most of their spartan conditions.

And did Mexico really give up the rhumba? We never found out; we were too busy, and we wanted to avoid another rendition of the tray serenade. ○

OFF THE RECORD

by Adam Forrest
reporter for the Big Issue

Anyone responsible for delivering Britain's power supply in the decades ahead would do well to pay a visit to Dounreay. The decommissioning site is a fascinating reminder of the energy dreams of an age gone by, and testament to the ingenuity involved in adapting to changed circumstances.

Decommissioning Manager **Mike Brown** was kind enough to give me a tour of the Dounreay Fast Reactor, once the cutting-edge of the fast breeder reactor technology designed to ensure Britain's fuel independence. As former chemical analyst **Edgar Fisher** said of the early days: "We were worshipping at the shrine of science. We lived for the reactor... to give the nation the power to survive and thrive."

Calder Bain, who has just celebrated his 50th anniversary of working life at Dounreay, told me how exciting it all was when he started as a fitter apprentice on turning fifteen-years-old. "There was a real pioneering spirit then, men who committed everything they had to it... Later, some of the boys found it hard to accept when we realised we'd be taking everything apart. It took a while to sink in because the whole community had been reliant on the place for a long period of time."

Talking to long-serving employees, it seemed clear the decommissioning process involved a difficult period of psychological adjustment. Much is still uncertain, of course. But everyone remains determined that skills are transferred, re-training is offered, new jobs are created locally, and Dounreay is still able, in one form or another, to play a part in the country's energy sector.

As the site's chief union representative **Davie Alexander** told me: "You can't just walk away and leave everything that's here. Why knock it all down and leave it desolate, when it could be the starting point for something else?" ○

“Quotable Quotes”

“I'm delighted Sellafield has been confirmed as a suitable site for nuclear new build. West Cumbria is now right in the running for potentially billions of pounds worth of future investment. This will seal its position as being at the heart of Britain's nuclear industry and becoming a major platform for low carbon energy investment.”

Cumbria County councillor Tim Knowles is optimistic that the Government's designation of Sellafield as a potential site for nuclear new build means that the county has a glowing future (News & Star)

“To replace current UK nuclear output of 10.5GW with onshore wind, at 2MW per turbine...you would have to find an area the size of 750,000 football pitches. If the UK was to follow Germany and shut down its entire nuclear industry, we would presumably be looking solely at renewables to meet the shortfall. If you attempted to replace UK power stations with wind farms, for example, then an area the size of Oxfordshire and Derbyshire combined would be needed to locate them.”

President of the Royal Society of Chemistry, Professor David Phillips, warns the UK government not to shut down its nuclear industry (The Engineer)

“After years of inaction, the EU for the very first time commits itself to a final disposal of nuclear waste. The EU becomes the most advanced region for the safe management of radioactive waste and spent fuel. Governments have been passing the problem on for decades now – to the next administration, the next generation.”

EU energy commissioner Gunther Oettinger, welcoming the EU's decision to require member countries to produce plans for facilities to permanently store their spent nuclear fuel (Christian Science Monitor)

“In terms of managing the leakage of radioactive materials, I think plugging the holes will be the most important point.”

Tsuyoshi Misawa, professor of reactor physics at Kyoto University's Research Reactor Institute is puzzled that this goal is not stated in Tepco's plan of action for the stricken Fukushima nuclear plant. (The Japan Times)

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

Local schools take part in STEM Ambassador scheme

The Caithness branch of the British Science Association, in conjunction with STEM ambassadors from DSRL and Jacobs, have this year run successful CREST investigator awards in three primary schools - Miller Academy in Thurso, Castletown School and North School in Wick. **Pat Keiran** explains.

CREST is Britain's largest national award scheme for project work in the STEM subjects (Science, Technology, Engineering and Maths); 25,000 young people have achieved CREST awards in the last year alone.

The scheme involves the children working through a series of 45 minute activities designed to teach scientific principles and a structured investigation method. This year 104 children and six STEM ambassadors have taken part.

The scheme has different levels, catering for children from 5-12 years old and when they have completed all the tasks, they are awarded STAR, SUPERSTAR or MEGASTAR certificates. There is the opportunity for the MEGASTARS to become Young Science Ambassadors and three pupils from Miller Academy will be taking this step starting next August.

The scheme has been enjoyed by children, teachers and ambassadors alike and we hope

that it will continue with these schools next year. as well as two more new ambassador teams going into Mount Pleasant and Hillhead schools.

If you think you want to get involved in delivering the scheme, or you think your children's school would benefit from the scheme, contact me at pat.kieran@dounreay.com and I will do my best to help you. ○



TOPIC OF THE MONTH



What is environmental nuisance

Environmental nuisance is something that causes an unwanted disturbance to someone's quality of life or something that can have a negative effect on their health.

Severe or prolonged nuisance can, in turn, result in considerable stress. For example loud noise in residential areas at night or bright light that shining into people's bedroom windows can disrupt people's sleep.

DSRL activities that are not properly managed may cause a nuisance to our neighbours who may complain to the Local Authority. DSRL requires all staff, suppliers and contractors to take all reasonable steps to prevent nuisance from occurring.

Controlling legislation

The Environmental Protection Act 1990 (EPA) is an Act of the Parliament of the United Kingdom. Part III of the Act defines a class of statutory nuisances over which the local authority can demand remedial action supported by criminal penalties. These include:

- Smoke, fumes and gases;
- Dust, steam, smell or other effluvia;
- Any accumulations or deposits; and
- Noise

Prevention of nuisance

Measures that you should adopt to prevent nuisance may include:

- Informing neighbours and others of activities in advance.
- Keeping sites clean, tidy and litter-free.
- Minimising noise and vibration, for instance, by using quiet equipment and locating it away from residential areas.
- Damping down dust.
- Directing lighting away from neighbouring properties.
- Modifying activities that cause odour or steam.
- Dealing with complaints rapidly and effectively and learning lessons from them to stop the same thing from happening again.

Nuisance management at Dounreay

Standard 0093 'Management of Nuisance Issues' places obligations on the environmental support services manager to ensure arrangements are in place for the identification, recording and management of nuisance on the Dounreay site. It also places obligations on ATO holders, project managers and contract managers to prevent and minimise nuisance from activities under their control.

Most importantly it places an obligation on **all employees** to raise and submit an Unusual Occurrence Report (UNOR) if they either make a nuisance observation or are informed of a nuisance issue from an offsite source.

Contacts:
Doug Graham
Environment Team Leader
Ext: 6030

Doug McGeachin
Senior Embedded
Environmental Advisor
Ext: 6183

Nuisance observations from UNORs, environmental aspects assessments and environmental inspections are collated by the environment team and added on to the Dounreay nuisance register which allows their effective management and timely resolution. ○

TOPIC OF THE MONTH Dounreay Site
Environment Team

August 2011

Environmental Nuisance

DUST & SMOKE

NOISE

LIGHT

ODOUR

TRAFFIC

If you have a complaint - If you receive a complaint
or
Are concerned about Environmental Nuisance on the Dounreay Site
Raise a UNOR and contact the Environment Team. Doug McGeachin: Ext 6183

Nuclear news

Jellyfish shut down nuclear power stations worldwide

An unusually large swarm of jellyfish caused the Torness nuclear power station to shut down for a period at the end of June.

The plant utilizes sea water for cooling purposes and the filters in the water-cooling system became clogged by the creatures.

It's a relatively rare occurrence in Britain, but quite a common problem around the world.

Earlier in June, a jellyfish swarm forced a Japanese nuclear power plant to lower its generation capacity. And in July, a similar swarm threatened to shut down an Israeli power plant in Hadera, when huge numbers of the creatures were sucked into the cooling system.

(Yahoo! News and BBC News)

Seal rescued from Hinkley Point nuclear station

June was not a good month for nuclear power plants and marine life. On June 19 an Atlantic grey seal was spotted by EDF staff in a cooling chamber at Hinkley Point in Somerset.

The seal was unharmed but was unable to swim out of the chamber herself. EDF and RSPCA staff built a cradle from scaffolding and netting to rescue the animal, and eventually managed to catch her after five days.

They released the seal, who they called Celia, into the sea a few miles from the station.

(Guardian)

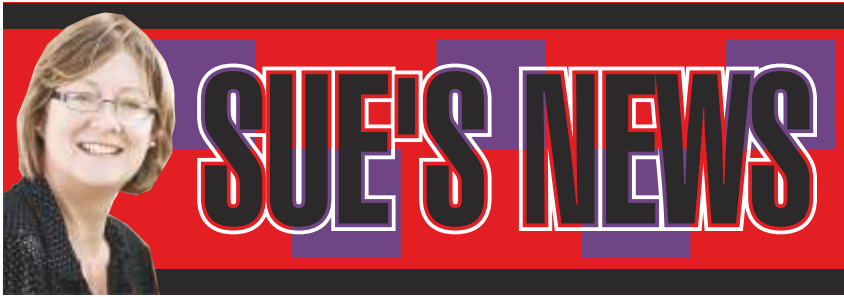
Animal activist enters Fukushima dead zone on rescue mission

A Japanese businessman turned animal activist has been defying the exclusion zone around the stricken nuclear reactors at Fukushima to rescue animals left behind when their owners fled.

Hiroshi Hoshi, his family and friends have made a series of raids into the area, avoiding roadblocks and police patrols, to rescue abandoned dogs and cats.

He has challenged the authorities to arrest him so that he can draw attention to the plight of the tens of thousands of animals, both domestic pets and livestock, left to die when the evacuation zone was created.

(The Australian) ○



In July, DSRL welcomed four new laundry staff – **Janice Grant, John Swanson, John Sewell and Ian Smith.**

And Dounreay said goodbye to **Paul Arrowsmith** who left at the end of July.

Two brave men, **Neil Parkin and Fraser McKechnie**, will be waxing for charity at the Cancer Research UK Relay for Life. **Susan Allan** of Gorgeous, Thurso will be carrying out a chest and back wax on the day of the relay at the Dammies, so please sponsor them.

Andy strikes it lucky in lottery

Dounreay worker **Andy Malcolm** is celebrating a £30,000 windfall on the People's Postcode Lottery.

Andy, project supervisor on the breeder removal at DFR, scooped the prize just weeks after signing up to play.

He struck gold when his Wick home postcode KW1 5QN was drawn as the weekly Street Prize.

The 44-year-old couldn't believe his luck when TV presenter **Angus Purden** appeared at his front door with a giant cheque.

He said: "It feels brilliant. You've made my day! I'm not normally a lucky guy – I never win anything. I bought a new car recently so now I can pay it off."

As a charity lottery, 20p from every £1 spent on People's Postcode Lottery tickets goes to good causes.

The People's Postcode Trust has awarded more than £2.5 million to over 500 projects across Britain. Thurso-based Girlguiding Caithness received £10,000 to build a commemorative Centenary Garden to mark the 100th anniversary of the Guide Association.

Andy, right, collects his winnings from TV presenter Angus Purden



Well done to DSRL's **Adam Matheson** and **Michael Moar** who came in second at this year's annual Scrabster Fair raft race.

There were four purpose built rafts taking part this year and the boys did well to fend off the stiff competition – and stay afloat - and row cross Thurso bay into second place.

Pictured looking jubilant following their victory are **Adam Matheson** (with the hat on) and **Michael Moar.** ○



DSRL IT Services Tip of the Month

Friendly Folders

When looking at folders (in "My Computer" or "Windows Explorer") there are a number of views we can choose, to make identifying files easier.

In most cases, the "Details" view is the most useful, since this gives us the most information about our files.

However, the chosen view often changes between folders. Wouldn't it be useful if the same view was applied to every folder we access? Here's how...

Step 1) In "My Computer" or "Windows Explorer", click on **Tools** and **Folder Options...**

Step 2) On the "View" tab (the second one), click on **Apply to All Folders**

Step 3) Click **OK** to close the window. ○



Answer to Wordladder puzzle

