

05/10 PERFORMANCE



Dounreay Site
Restoration Ltd

Site clean-up performance report for
May 2010

www.dounreay.com

Removal of reactor material key to plant's clean-up

Radioactive material used during the operational phase of Dounreay's last reactor is being removed for dry storage.

The Prototype Fast Reactor (PFR) was the second and last fast reactor to be built in the UK. It operated for twenty years until 1994 and had the dual role of providing power to the national grid and offering unique research and development facilities.

When the PFR mission was completed and the UK fast reactor programme was shelved, PFR was de-fuelled and achieved

a nuclear clean-up world-record for the destruction of its 1,500 tonnes of sodium liquid metal that once flowed through the bowels of the reactor.

The radioactive components left over from the reactor have been safely stored in water which provides shielding from the radiation.

Work has now started to remove this material using a remote

handling machine known as a transporter. This is the first time components of the reactor sub-assembly have been removed since reprocessing ended over ten years ago,

This will lead to a further crucial milestone for the shutdown of the Dounreay site as one third of the hazardous material left over from the historic reactor experiment is dealt with in a safe and controlled environment and placed into

200L stainless steel drums ready for long-term waste storage.

DSRL's senior project manager Alex Potts, said: 'This phase of work is a key chapter in the site's decommissioning programme on behalf of the Nuclear Decommissioning Authority, as a significant potential hazard from the PFR experiment is treated and prepared for dry storage.'





PROGRAMME PERFORMANCE REPORT

May 2010

PROGRAMME DELIVERY

Schedule Performance Index (SPI)

Year to-date	Year-end forecast
0.99	1.00

* SPI measures work actually carried out against the agreed NDA schedule.

Cost Performance Index (CPI)

Year to-date	Year-end forecast
1.11	1.07

* CPI measures the cost of work actually carried out against the forecast agreed with the NDA. A figure of 1.0 equals the cost agreed - greater than one reflects efficiency gains.

Performance Based Incentives (PBI)

Year to-date earned	Year-end maximum forecast
£nil	Still under negotiation

* PBI are agreed milestones with NDA which result in payment of fee.

PRODUCTION

	May	2010 - 2011
Exempt waste removed from site:	176 tonnes	176 tonnes
Low-level waste processed for disposal:	611 drums	920 drums
Raffinate liquor converted to solid intermediate-level waste:	48 drums	81 drums

HEALTH & SAFETY

Number of reportable radiological events:	0	0
Number of events on International Nuclear Event Scale:	0	0
Number of Lost Time Accidents (LTA):	0	0
Total Recordable Incident Rate: <small>Compares injury and illness rates per 20,000 hours worked</small>	0.32	
RIDDOR reportable occurrences:	0	0
Hours worked since last LTA:	4,600,000	
Average radiation dose to DSRL workforce:	0.02 mSv	
Average radiation dose to non-DSRL workforce:	0.02 mSv	

Stated doses are one month behind, due to processing time.

ENVIRONMENT

Events reported to regulator:	0	0
Amount of paper recycled:	0 kg	0 kg
Amount of metal recycled:	0 kg	41,020 kg
Amount of cardboard recycled:	0 kg	0 kg
Particles recovered from local beaches:	4	4

PEOPLE

Full time DSRL staff:	880
Part time DSRL staff:	63
Contractor staff:	913
Gate-held passes (infrequent users):	141



Dounreay is being demolished at a rate of 100 sq. ft. every day, new figures reveal.

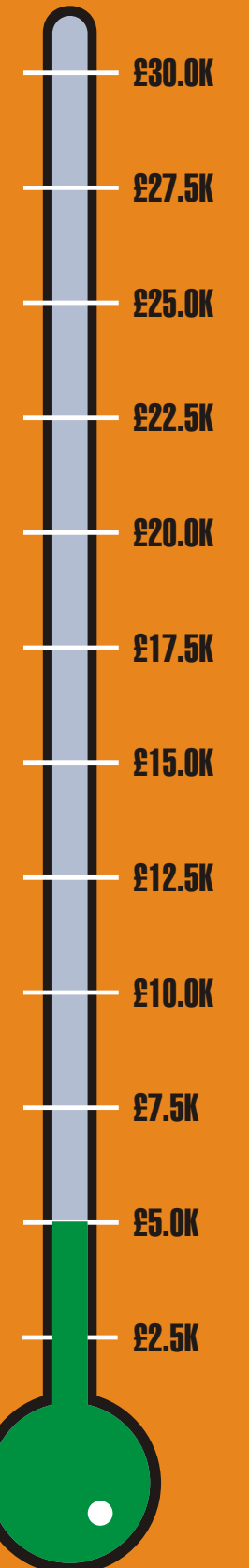
This takes the total area of property cleared under the Nuclear Decommissioning Authority's ownership of the site to more than 178,000 sq ft, or 4.1 acres.

More than 160 redundant structures and buildings have been removed from the skyline since the start of decommissioning, with more than 60 cleared in the period since 2005 when the NDA was formed.

The list of properties that have disappeared includes some of the most radiologically contaminated buildings found anywhere in the UK

These include a suite of cells contaminated by experiments with plutonium liquors and a plant where research reactor fuel was manufactured using highly-enriched uranium.

UKAEA donates £2500 to Dounreay Communities Fund for each month without a Lost Time Accident (LTA)



Total = £5,000

DFR

A DFR decommissioning team successfully installed a new 55 tonne crane into the breeder removal building adjacent to DFR. The work was ingeniously carried out without removing the roof off the building so protecting the internal fixtures and fittings from the unpredictable weather outside. The work was completed in a week

PFR

The site's fire fighters were called out to extinguish a small sodium fire at PFR, in part of the former steam generating building. The fire was extinguished quickly and the sodium transferred to metal drums and layered with graphex.

No-one was injured. Fire damage was confined to the containment, the bags and a wooden barrier. Work in the area has been halted pending an investigation into the cause of the fire. The rest of PFR decommissioning is unaffected.

Demonstration site exercise

An exercise to test the emergency arrangements at Dounreay took place on the morning of Wednesday, May 12. The purpose of the exercise, which involved all personnel at the site, was to demonstrate the effectiveness of the site's emergency preparedness to

regulators. Code-named Delta 45, the exercise involved the sounding of the site alert for approximately 60 seconds.

Green recycling

During the last financial year Dounreay has recycled more than 113 tonnes of clean metal and over 35 tonnes of paper. Twenty one tonnes of cardboard was also sent for recycling, and Johnson Controls collects glass, plastic and batteries, as well as hard hats and wooden pallets, for eventual recycling or reuse where possible.

The site has had a robust recycling programme for the last five years, which earned a bronze award in 2009 from National Recycling Stars. Facilities management company Johnson Controls manages the recycling programme for Dounreay, assisted by the DSRL waste services unit.

International safety award

DSRL won the prestigious British Safety Council International Safety Award for the second year running. It was awarded following a rigorous assessment of the company's health and safety policies and procedures by an independent adjudication panel.

To win, the site had to demonstrate that comprehensive

health and safety policies were in place, and that there was a clear and continuing commitment to health and safety throughout the company.

Site safety awards 2010

Dounreay's annual safety awards were held in May. The director's awards are given to projects or individuals who have contributed significantly to safety on site during the year.

Joint winners of the team award were the Prototype Fast Reactor team who cleaned up and removed the dirty dump tanks (companies involved - DSRL, BNS and JGC), and the team who successfully cleaned up the glass columns taken from the pulsed column laboratory (DSRL, NDSL, Doosan Babcock and Nuvia).

Reprocessing contracts

International Nuclear Services has taken over formal management responsibility from Dounreay Site Restoration Ltd for the site's overseas reprocessing contracts, on behalf of the Nuclear Decommissioning Authority. The majority of these contracts were entered into by UKAEA during its management of Dounreay in the 1980s and 1990s.

The extant contracts transferred from the Atomic Energy Authority to the NDA in 2005. Their closure

is a small but important part of the site clean-up and shutdown programme.

Annual trade exhibition

More than 50 of Britain's leading suppliers of technology to the nuclear industry took part in Dounreay's annual trade exhibition. The annual Technology and Innovation Exhibition is organised by Nu-Tech Associates.

Dounreay films

Two new films have been released about an underground shaft used for the disposal of intermediate level waste at Dounreay more than 30 years ago. Decommissioning the 65-metre deep, vertical shaft is one of the biggest engineering and environmental tasks in the site closure programme.

Hydraulic isolation of the Dounreay shaft is a seven-minute film about the successful first phase of its decommissioning. This involved installing a grout barrier in the rock around the shaft to reduce the amount of groundwater that can get into the shaft when work begins to empty it.

History of the Dounreay shaft is a three-minute film that charts the construction of the shaft and the disposal of waste from the late 1950s until an explosion in 1977.

Site closure programme at-a-glance

Forecast staffing levels

Date	Milestone	Cumulative cost
2010	MTR reprocessing plant decommissioned	
2013	Bulk liquid metal destroyed at DFR	
2014	LLW disposal site opens	
2016	Breeder removed from DFR	
2018	High-active liquor tanks emptied	
2021	Fast reactor reprocessing plant decommissioned	
2023	Start on low level waste site	
2025	All low level waste facilities cleared	Interim End State - £2.6 bn
2027	Low level waste site capped	
2057	Intermediate-level waste removed	
2078	Fuel and waste stores cleared	
2294	All land available for re-use	End State - £3.2 bn

NDA competition for DSRL

- Industry days for bidders – Feb/Mar 2010
- Tendering – Winter 2010
- Preferred bidder – Summer 2011
- New company takes over DSRL – Winter 2011

Annual funding limits set by NDA

Year	Confirmed/Provisional	Amount
2010/11	confirmed	£166 million
2011/12	confirmed	£150 million
2012/13	provisional	£150 million

