

03/10 PERFORMANCE



Dounreay Site
Restoration Ltd

Site clean-up performance report for
March 2010

www.dounreay.com

New drain clears way for shaft

A £500,000 project is being carried out by local companies to reroute 300 metres of the low-active drain beneath Dounreay.

The existing drain, which takes effluent from the decommissioning of facilities to the sea discharge tanks, is located beneath the proposed construction site of the shaft and silo waste retrieval facilities.

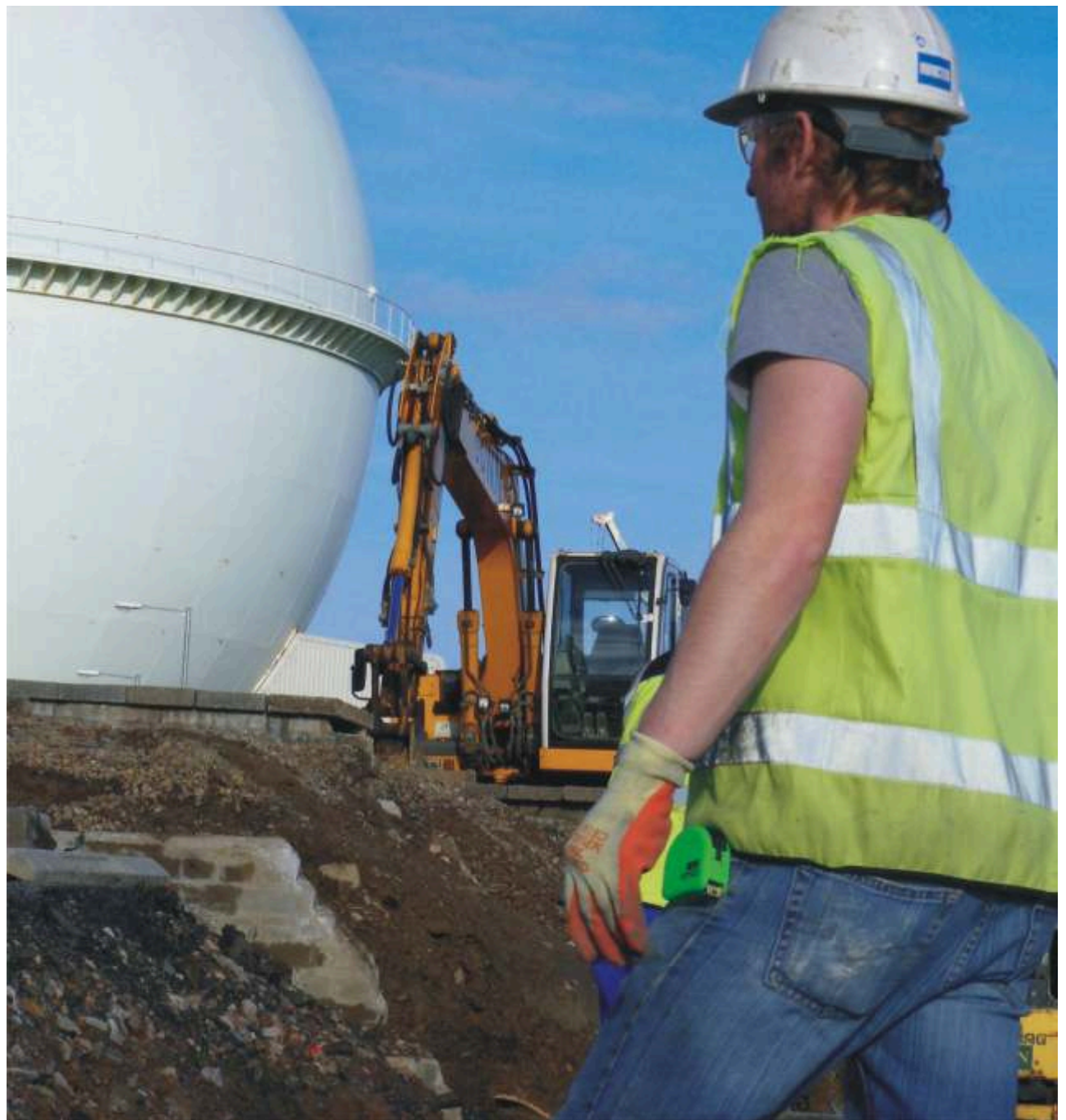
John Gunn & Son, Budge Formwork and Gow are laying a new section of drain that will allow the old section to be dug up and removed from the construction site.

This area of ground is one of the most congested at Dounreay, with many redundant cables and services still present in the ground. These date back to the days of Dounreay as a wartime aerodrome.

Project managers need to be cautious when digging up areas like this, since many services were laid so long ago that official records of their location no longer exist.

George Groat, the DSRL project manager, said six services were found in an area where official records listed just two.

The groundwork is part of the site clearance work needed for the eventual decommissioning of the shaft and silo.



179 months until shutdown

PROGRAMME PERFORMANCE REPORT

March 2010

PROGRAMME DELIVERY

Schedule Performance Index (SPI)

Year to-date	Year-end forecast
0.99	0.99

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

Cost Performance Index (CPI)

Year to-date	Year-end forecast
1.11	1.11

* 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
£5.00 million (provisional)	£4.92 million (provisional)

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

PRODUCTION

	March	2009 - 2010
Exempt waste removed from site:	0 tonnes	78.44 tonnes
Low-level waste processed for disposal:	610 drums	5,382 drums
Raffinate liquor converted to solid intermediate-level waste:	50 drums	634 drums

HEALTH & SAFETY

Number of reportable radiological events:	0	0
Number of events on International Nuclear Event Scale:	0	1
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:	4,007,000	
Average radiation dose to DSRL workforce:	0.03 mSv	
Average radiation dose to non-DSRL workforce:	0.07 mSv	

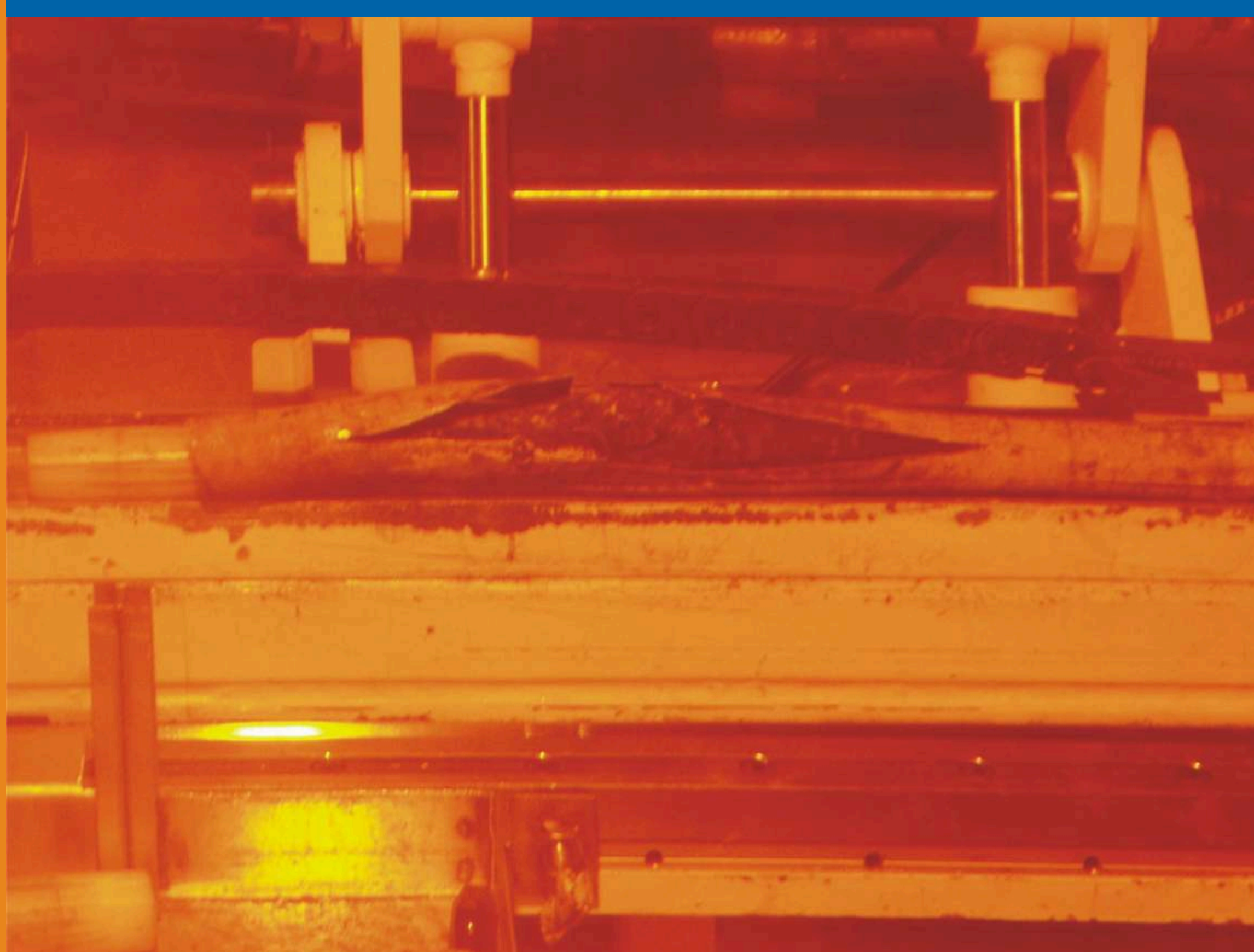
Stated doses are one month behind, due to processing time.

ENVIRONMENT

Events reported to regulator:	0	0
Amount of paper recycled:	5,390 kg	35,890 kg
Amount of metal recycled:	12,860 kg	113,860 kg
Amount of cardboard recycled:	3,150 kg	21,280 kg
Particles recovered from local beaches:	0	28

PEOPLE

Full time DSRL staff:	889
Part time DSRL staff:	62
Contractor staff:	969
Gate-held passes (infrequent users):	134



Almost 500 irradiated breeder elements from the Dounreay Fast Reactor have been successfully de-clad by a small team of workers, hitting the year-end target set for the project.

They successfully de-clad 75% of the stored material and are on programme to complete this phase of the work by Christmas.

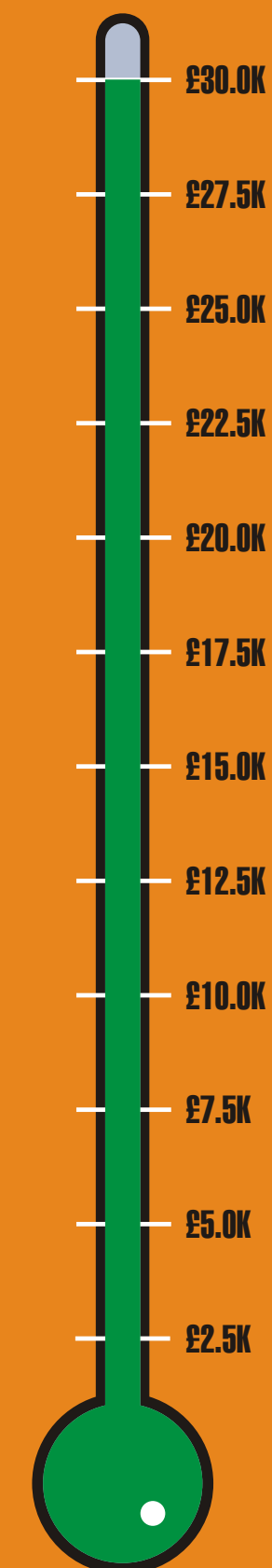
The team used a remotely operated machine, designed in-house, to strip the stainless steel cladding from the irradiated elements.

The 80 lb elements had been canned and stored in drums following their removal from the reactor during its operational life. The uranium 'breeder' elements were arranged in a ring around the reactor core, and were designed to create more fuel than they burned.

Some of the elements had become distorted and swollen during their sojourn in the reactor core, slowing down the rate at which they could be stripped.

The operators found that it could take over a day to remove the cladding from a distorted element, or as little as a few hours if the element was undamaged.

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



Total = £30,000

DFR

Batches 81 to 97 of primary NaK liquid metal were processed through the disposal plant during March. DSRL developed a modified processing sequence which allows each batch to cool, with minimal impact on the overall processing times, following a snag with a cooling damper.

The breeder removal project achieved a significant milestone by receiving delivery of both the new 55-tonne building crane and tool maintenance glovebox. Design and location of the Magnox flask leak testing and swab stations was finalised and one of the stations manufactured.

A contract was awarded for the design, manufacture and trialling of equipment for dismantling of the DFR reactor vault pipe work

Pond water treatment continued, with 56 m3 of water discharged.

PFR

Cutting trials for the low level waste size reduction facility were completed. The project team decided to trial a low-tech solution - band-saw rather than diamond wire - which subsequently proved extremely successful on test pieces, including hardened steel components.

Dirty dump tank removal was stopped after asbestos was discovered in areas of the steam generator building. It is expected to take until mid-May to deal with this.

All water vapour nitrogen plant equipment was removed from the JOST facility at Janetstown. Some of the specialised equipment has been moved to a storage facility awaiting a decision on whether the equipment can be redeployed on site.

Sludge cementation trials for the old effluent treatment plant were completed and the results indicate the sludge stabilisation process should be successful. The sludge has been removed from the vault and the concept design for sludge retrieval from the tanks completed.

All physical works required prior to the cessation of shifts were completed. NII decided not to call in the management of

change (LC36) safety paperwork.

FUEL CYCLE AREA

Decommissioning was completed of the last of the ex-1206 plutonium nitrate flasks.

The thorium storage bank in the former uranium recovery plant was decommissioned and removed.

Following decommissioning of glovebox no. 6, the pulsed column laboratory was declassified.

In the D1200/D1215 laboratories, decommissioning and removal of the PAL glovebox was completed.

The D1209 ventilation project commenced preparation for active operations. Decommissioning of the D2154 redundant vent plant building was completed.

OTHER AREAS

Eight small buildings were demolished in March by the minor demolitions team.

A radiological and borehole survey was carried out of Landfill 42.

The D6499 cover building was dismantled at the low-level waste disposal pits.

Work on the proposed new D3900 waste treatment facility came to an end, reflecting the change in programme priorities associated with the £150m budget cap.

WASTE MANAGEMENT

A total of 8.55m3 of raffinate from historical reprocessing was transferred to the cementation plant, taking the total for the financial year to 100.5m3, filling 634 drums.

The redundant ventilation stack from DFR was successfully cut up and consigned as waste.

A contract notice was issued for design and build of the first two vaults for the new low-level waste disposal facility.

A total of 101 asbestos surveys were carried out in March. Asbestos removal from the D1402 and D2145 substations was completed.

Almost 500 irradiated 'breeder' elements from DFR had been de-clad by the year-end, representing 75 per cent of the work.

SAFETY

The completion of a 12th successive month without a lost-time accident earned the Dounreay Communities Fund a maximum £30,000 pay-out from UKAEA Ltd for 2009/10.

Dounreay was nominated for an international award from the British Safety Council.

ENVIRONMENT

SEPA informed DSRL that the 2009 RSA Operator Performance Assessment was evaluated as "satisfactory".

Phase 4 of the environmental support file production schedule was completed by March 31.

A new environmental improvement plan for 2010/11 was approved.

Collaboration with the environment teams of both Chapelcross and Hunterston continued, with a meeting held in March at Chapelcross.

Discussions on the new carbon reduction commitment legislation took place between DSRL, UKAEA and Babcock International. Babcock indicated the CRC scheme will be administered at the highest level in the group.

A meeting was held with the NDA, NII and SEPA to discuss the site end-state and restoration plans, the approach to setting clean-up levels, the management of decommissioning rubble and rubble use in filling voids and capping the site.

NUCLEAR MATERIALS

Low-enriched uranium belonging to Atomic Energy Canada Ltd was removed from Dounreay in two separate shipments during March and delivered safely to the Chalk River nuclear site, closing out a historical contract inherited by the NDA from the UK Atomic Energy Authority.

GENERAL

Staff were briefed on the next phase of employment reductions within DSRL. Up to

180 posts will disappear over the next three years.

NDA's competition for Dounreay formally commenced. Instructions were issued to DSRL staff to ensure the company's neutrality during the bidding process.

DSRL's training and development team was accredited to offer Institute of Occupational Safety and Health courses.

A total of 36 responses had been received by the deadline for submissions on the site's draft heritage strategy.

Tony Wratten started a new role as deputy managing director of DSRL. His previous position, director of assurance, has been filled by Alan Scullion.

Two senior managers from AMEC left DSRL following the dissolution of a business agreement between AMEC and UKAEA Ltd.

Dounreay won national recognition for its work to promote engineering and science in local schools, with nominations in two categories at the first Scottish awards for the Science, Technology, Engineering and Mathematics Network, STEMNET.

COMMUNITY SUPPORT

DSRL approved two applications for financial assistance under its socio-economic plan in March - Latheron, Lybster and Clyth Community Development Company - £8000 towards purchase of land at Rumster Forest; and Ormlie Community Association - £5000 towards the cost of a co-ordinator to help unemployed young people obtain jobs

Dounreay Communities Fund approved applications for financial assistance from the following in March:

Sculpture Classes, Crossroads Caring Scotland, 4th Wick Girl Guide Unit, Caithness Badminton Association, Poltney Bell Ringers, "Jump Natural" proposal, Reay Golf Club, CASVAG, Jackie Beales, Wick Town & County Club, Latheron Art Show, Brough Bay Association and Caithness United.

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 Landfill 42 re-use	
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	2009/10	2010/11	2011/12
Confirmed	£156.7 million	£166 million	£150 million
Provisional			

