

11/08 PERFORMANCE



Dounreay Site
Restoration Ltd

Site clean-up performance report for
November 2008

www.dounreay.com

Cleaned-up plutonium cell to be bulldozed

Britain's former experimental criticality laboratory was decommissioned in November when the last of the facilities was declassified as a radioactive area.

This enabled the demolition team to begin preparing for destruction of the building itself, starting with asbestos removal.

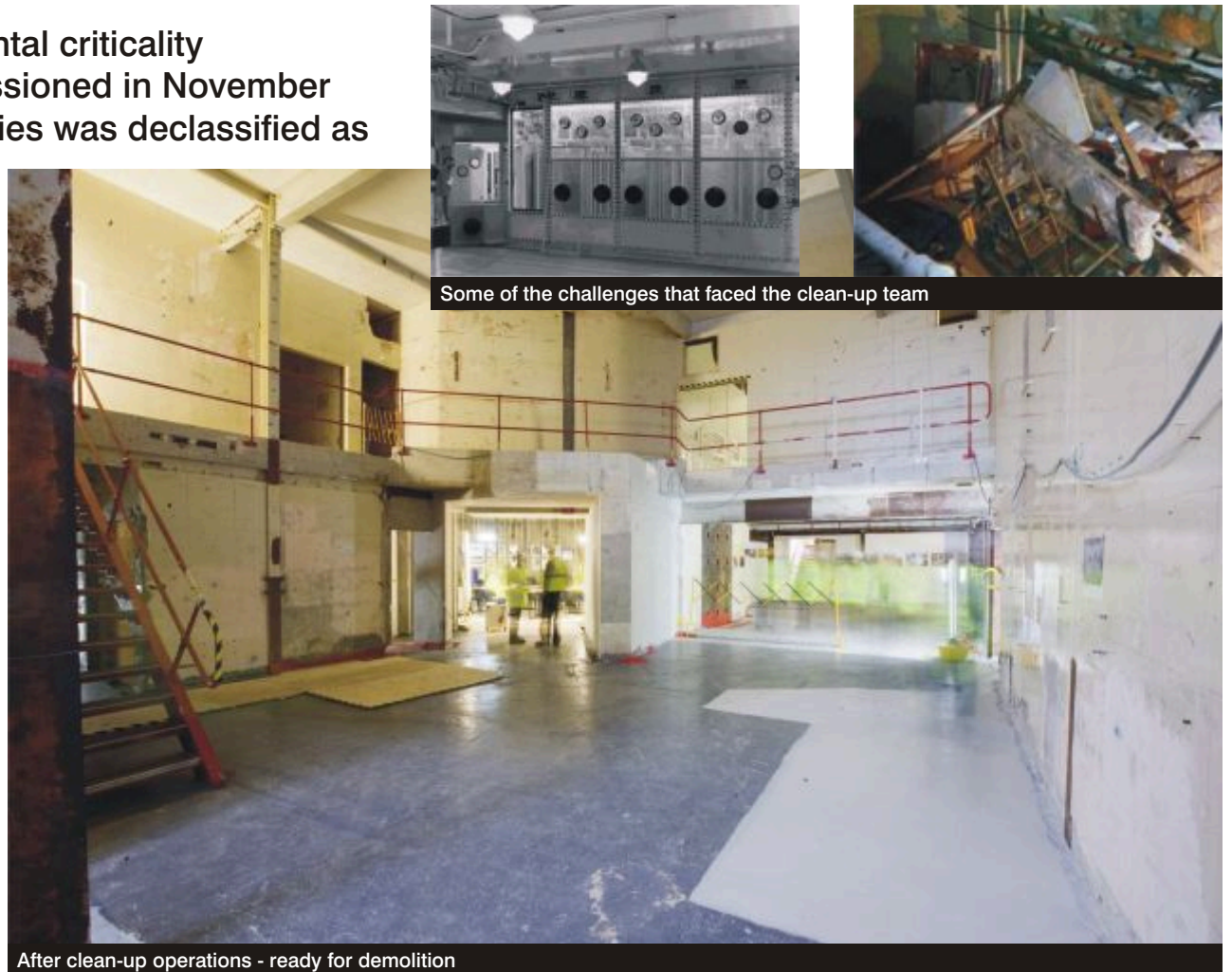
The attention of the decommissioning turned to cleaning up outer areas such as effluent pits.

Four cells were built in the 1950s and housed miniature reactors

Three of the cells were decontaminated in the 1960s but the fourth, the plutonium facility, was sealed up.

It took staff eight years and more than 20,000 separate entries wearing airline suits or respirators to remove the junk and contamination.

"The reputation of D8550 as a place that was so dirty that some people thought it could never be cleaned up safely was at the forefront of our minds from the very start," said Steve Beckitt, decommissioning project manager.



Some of the challenges that faced the clean-up team

After clean-up operations - ready for demolition

"We recognised the hazard was extensive throughout the building, we planned for it and we took no risks with the safety of those workers who went inside to clean it up.

"In total, the team made some 20,000 entries wearing full airline suits or, latterly, respirators. None of them received any significant radiation dose. We had one

lost-time accident when a worker bumped her head on a beam. It was a thoroughly professional job that the whole team – DSRL, Doosan Babcock, NDSL and Nuvia – are justifiably proud of.

"For me, the successful and safe completion of this job sends out two strong messages. From a site perspective, it demonstrates

the quality of decommissioning skills we have built up. And from an industry perspective, it underlines the importance of decommissioning plant as soon as it becomes redundant instead of walking away for decades and allowing the liability to get worse."

1 9 6 months until shutdown

PROGRAMME PERFORMANCE REPORT

November 2008

PROGRAMME DELIVERY

Schedule Performance Index (SPI)

Year to-date	Year-end forecast
0.94	0.98

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

Cost Performance Index (CPI)

Year to-date	Year-end forecast
1.03	1.00

* 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	Year-end maximum forecast for project delivery
£1.17 million	£4.30 million

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

PRODUCTION

	November	2008 - 2009
Exempt waste removed from site:	0 tonnes	15.6 tonnes
Low-level waste processed for disposal:	482 drums	2950 drums
Raffinate liquor converted to solid intermediate-level waste:	73 drums	358 drums

HEALTH & SAFETY

Number of reportable radiological events:	0	0
Number of events on International Nuclear Event Scale:	0	0
Average radiation dose (calendar year to date) to DSRL staff:	0.10 mSv	
Maximum individual radiation dose (calendar year to date) to DSRL staff:	1.96 mSv	
Average radiation dose (calendar year to date) to non-DSRL staff:	0.08 mSv	
Maximum individual radiation dose (in calendar year to date) to non-DSRL staff:	2.03 mSv	
Number of Lost Time Accidents:	2	3
Total Recordable Incident Rate: <small>Compares injury and illness rates per 20,000 hours worked</small>	0.20	
RIDDOR reportable occurrences:	0	
Hours worked since last LTA:	200,000	

ENVIRONMENT

Events reported to regulator:	0	0
Radiological discharges as proportion of authorisation:	Reported quarterly on the website	
Amount of paper recycled:	0 kg	10,740 kg
Amount of metal recycled:	18,800 kg	65,500 kg
Amount of cardboard recycled:	2,540 kg	6,180 kg
Particles recovered from local beaches:	0	

PEOPLE

DSRL (full time equivalents):	953.1
Sub-contractors (number of passes held):	1155



Waste that is exempt from the Radioactive Substances Act is carefully screened before being released for recycling or disposal.

Recent developments in the segregation of waste and improvements in monitoring techniques have made it possible to manage waste more effectively from controlled areas of the site.

A good example of this is waste from building

excavations. In 2005, the new waste segregation procedures were tested on more than 1600 one-tonne bags of excavated material that had accumulated at the site and been categorised previously as low level waste. More than 550 were found to be below the threshold for low level waste and therefore

exempt from these regulations.

More recently, over 9600 tonnes of exempt spoil has been recycled as aggregate for new construction at the site. This prevented its transportation to landfill for disposal, and avoided the need to source primary aggregate.

The new practices now in place at Dounreay have enabled project teams to forecast, characterise and manage their wastes more efficiently. These new arrangements reflect an industry-wide code of practice and are enshrined in an environmental management

system accredited independently by EAQA.

In 2006/07, 906 tonnes of waste exempt from the Radioactive Substances Act was removed from the site for disposal. In 2007/08, the total was 419 tonnes.

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



Total = £15,000

SITE NEWS

DECOMMISSIONING

Dounreay Fast Reactor

A restart date has been set in March for the ion exchange plant that forms part of the liquid metal destruction process. A review identified a number of improvements following breakdowns during the active commissioning phase. The retrieval cell for removal of the breeder was installed successfully on top of the reactor.

Prototype Fast Reactor

The sodium inventory disposal plant successfully completed its fourth load of clean-up of items contaminated with sodium-potassium liquid metal. Clean-up of redundant sodium equipment was completed at the Janetstown off-site facility.



Uranium recovery plant

Concrete removal continued in the amber area of the uranium recovery plant, with 75 plinths removed. Forty-eight bins of waste were repacked.

MTR reprocessing plant

The south side dissolver station of the materials test reactor reprocessing plant was stripped out. Coring of the north side wall and roof was completed.

Shaft

Two skip loads of metal a week are being shredded successfully at Janetstown as part of equipment trials for retrieval of waste from the shaft. Bin compaction trials have been carried out at Winfrith. Thirty trial pits have been completed as part of the ground enabling works.

WASTE & MATERIALS MANAGEMENT

Raffinates

Transfer of liquor for cementation resumed after weaknesses in the ventilation system associated with one of the tanks were addressed. NDA approval has been obtained for the next phase of spending on the major construction contract for a new intermediate-level waste treatment plant.

Breeder

Five drums of breeder material were successfully declad.

HEALTH AND SAFETY

Safety challenge

A new safety challenge has been set for the site – to complete 60 consecutive days without any breaches of security rules. A wind-up radio is the reward for all staff.

Zero doses

Health checks carried out on workers decommissioning the Pulsed Column Laboratory recorded zero doses. The additional checks were carried out following suspect noseblow results.

Two LTAs

Two lost-time accidents were recorded. A worker injured a thumb while trying to release a stuck vice and a worker tweaked their neck after a lift.

ENVIRONMENT

Article 37

A meeting with the European Commission, attended by Scottish Government, SEPA and DSRL resulted in agreement on the way forward for the planned low level waste disposal facility Article 37 submission, and the update to the site's Article 37 submission.

Particles

Dounreay welcomed the findings of the Fourth Report published by the Dounreay Particles Advisory Group.

File approved

The first of the modern environmental safety files was approved by the site executive committee. The first plant to reach this stage is the low level liquid effluent plant.

CONTRACTS

The combined operations and maintenance contract with BNS Nuclear Services for the fast reactors came into effect on November 1.

The new contract for the site's environmental monitoring programme was awarded to Nuvia.

GENERAL

Training at Naver

Dounreay's training and development team held a series of open days to promote the launch of their new business, Training at Naver.



Armistice Day

The site alert was sounded briefly at 1100hrs on November 11 to signal a two-minute silence for Armistice Day.

Community fund

DSRL obtained agreement from NDA to liaise with Highland Council to assist in the establishment of a community fund associated with the proposed low-level waste disposal facility.

Invoices

DSRL committed to pay invoices within 10 working days as part of a Government initiative to help

businesses cope with current economic events.

Heritage

Site heritage officer James Gunn was interviewed about his for a report broadcast on BBC TV Scotland. BBC Radio Scotland broadcast a discussion with local



VISITORS



- Delegation from BN-350 fast reactor, Kazakhstan
- UKAEA executive committee
- Delegation from Ignalina NPP, Lithuania
- National Audit Office
- Nuclear Legacies Liability Programme, Canada
- Centre for the Protection of National Infrastructure.