

04/10 PERFORMANCE



Dounreay Site
Restoration Ltd

Site clean-up performance report for
April 2010

www.dounreay.com

Fuel Cycle Area clean up progresses

Workers wearing special equipment to protect them from radioactivity made more than 1700 entries into redundant caves, cells and other hazardous areas inside the Fuel Cycle Area during April.

They are cleaning out and dismantling a series of laboratories, fuel plants and examination facilities where nuclear materials were processed from Britain's fast reactor experiment.

A legacy of radioactive contamination and other hazards means they need to wear special equipment to help safeguard their health and minimise their exposure to radioactivity.

This can range from respirators to full airline suits designed to guard against inhalation of radioactive particulate.

There are more than 30 separate decommissioning projects being taken forward in the Fuel Cycle Area, which was the site's industrial centre for the handling and processing of nuclear material.

More than 80 per cent of the low-level waste generated at Dounreay during April came from these projects. They also accounted for all the

intermediate-level waste.

Teams are delivering just under £1 million worth of decommissioning work every

week, with an average of more than 50 workers a day going inside the most hazardous working areas to strip out and dismantle.



Workers wearing protective equipment dismantle the high-active liquor transfer control panels in the former research reactor fuel reprocessing plant.

PROGRAMME PERFORMANCE REPORT

April 2010

PROGRAMME DELIVERY

Schedule Performance Index (SPI)

Year to-date	Year-end forecast
1.00	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

	April	2010 - 2011
Exempt waste removed from site:	0 tonnes	0 tonnes
Low-level waste processed for disposal:	309 drums	309 drums
Raffinate liquor converted to solid intermediate-level waste:	33 drums	33 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:	4,370,000	
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:	41,020 kg	41,020 kg
Amount of cardboard recycled:	0 kg	0 kg
Particles recovered from local beaches:	0	0

PEOPLE

Full time DSRL staff:	883
Part time DSRL staff:	62
Contractor staff:	928
Gate-held passes (infrequent users):	135



The latest stage of preparation for the removal of breeder material from Dounreay's experimental fast reactor has been completed successfully.

It involved the installation of a 55-tonne overhead crane inside a new building where the breeder will be processed once it has been extracted from a blanket around the core of the reactor. This is expected to take place from 2013 onwards, once the bulk of the liquid

metal coolant has been removed from the reactor vessel.

The crane was installed using a yoke specially designed for DSRL. This meant that the building roof did not need to be removed to install the crane.

It will be capable of lifting the heavy containers, known as flasks, inside which the breeder rods will be packaged, ready for storage and transportation.

One option is to remove the breeder to Sellafield in England where facilities exist to manage this type of material. The Nuclear Decommissioning Authority has asked DSRL and Sellafield to submit a plan for this transfer of the material, so that a decision can be taken on the options.

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



Total = £2,500

DFR

Nine batches of primary coolant were fully processed through the DFR liquid metal disposal plant, taking the total to 106.

Half of the water (247m³) from the DFR east pond has now been treated and discharged.

Modifications continued to the breeder removal building for the treatment and packaging of breeder fuel, with the installation of the 55te crane required for the handling of the Magnox flasks and location of the retrieval cell tool maintenance glovebox in the sphere.

PFR

Shift work came to an end at PFR on April 30, reflecting the reduction in hazard following successful destruction of the bulk sodium coolant.

The sodium inventory disposal plant returned to routine destruction of alkali metal contaminated components. DSRL will focus on processing NaK-wetted items for the initial campaign of the year.

DSRL successfully drained and destroyed 300kg of sodium from the sodium disposal plant.

FUEL CYCLE AREA

Ten cans filled with intermediate-level waste were removed from the post-irradiation examination facility. A power manipulator is being prepared for cell deployment

following completion of training.

Decommissioning started of the thorium evaporator in the uranium recovery plant following the successful removal of partition walls and recovery of bottled mercury solution to storage.

Decommissioning of the research reactor fuel reprocessing plant continued to access residual fissile material from the pond base.

Asbestos continued to be removed from an old low level waste facility, with general equipment strip out and preparations for floor removal.

SAFETY

At April 28, the site completed 425 days (4.35 million man-hours) since the its last lost-time accident.

The site completed its latest safety challenge – 60 consecutive days without an electrical non-compliance – on April 2.

HSE issued new guidance for the completion of asbestos surveys, which requires any area surveyed before 2006 to be resurveyed using the new guidelines.

ENVIRONMENT

The DSRL environmental support file production programme is on track to be completed by June 1.

DSRL submitted a revised RSA application, taking account of the comments received from SEPA.

Final assessments took place of

the tender submissions from the two consultant firms competing for the end state technical support contract.

Feedback from the heritage engagement process was reported to NDA. A heritage implementation plan is being finalised, a reply to each response has been prepared and will be posted on the DSRL website once finalised.

NUCLEAR MATERIALS

International Nuclear Services took over responsibility from DSRL for closing out a number of commercial fuel contracts entered into by the UK Atomic Energy Authority during its management of Dounreay in the 1990s. INS is a wholly-owned subsidiary of the Nuclear Decommissioning Authority which inherited the contracts from UKAEA in 2005.

DSRL learned that the annual Report for 2009 from EURATOM concludes that the site is achieving a high level of performance in the area of Safeguards.

GENERAL

An employee notice was issued by DSRL seeking volunteers for early release terms and an online transition information pack has been issued. New guidance has been issued on use of agency workers. An increased in applications for transition funding for retraining, including interest in business start-up support, was reported.

Meetings and correspondence continued with Nuvia and Unite over a potential TUPE claim from Nuvia workers previously employed on shifts at PFR.

Guidance was issued to staff, based on the requirements of the NDA, to ensure the site did not become embroiled in political activity during the General Election.

COMMUNITY

The following applications for financial support from Dounreay Communities Fund were approved in April:

- Thurso Bowling Club - £200;
- Lybster Golf Club - £50;
- KSD Martial Arts £400;
- Halladale Hall & Amenities Association - £350;
- Skerry Community Ownership Trust - £500;
- Caithness Gymnastic Club £400;
- Mey Highland Games £150;
- Safe Highlander - £500;
- Caithness Archaeological Trust/Caithness Horizons - £300;
- Halkirk Army Cadet Force - £300;
- Bain & Wade Memorial Trophy - £300;
- Caithness Astronomy Group - £300;
- Pentland Firth Yacht Club £200.

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-up of low level waste facility	
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

