



DOUNREAY SITE RESTORATION LTD

DOUNREAY STAKEHOLDER SITE RESTORATION SUB GROUP REPORT, JANUARY 2022

Current as of 10 January 2022

Introduction

- Work is progressing on the joining of DSRL and Magnox and currently developing the issues around licensing. Overall, this is to reduce the number of Boards to four (as per David Peattie’s 4 pillar model) and to do this Magnox and DSRL will eventually form one Board. The site licence for DSRL will also be transferred to Magnox. Dounreay will remain a distinct and separately funded entity.

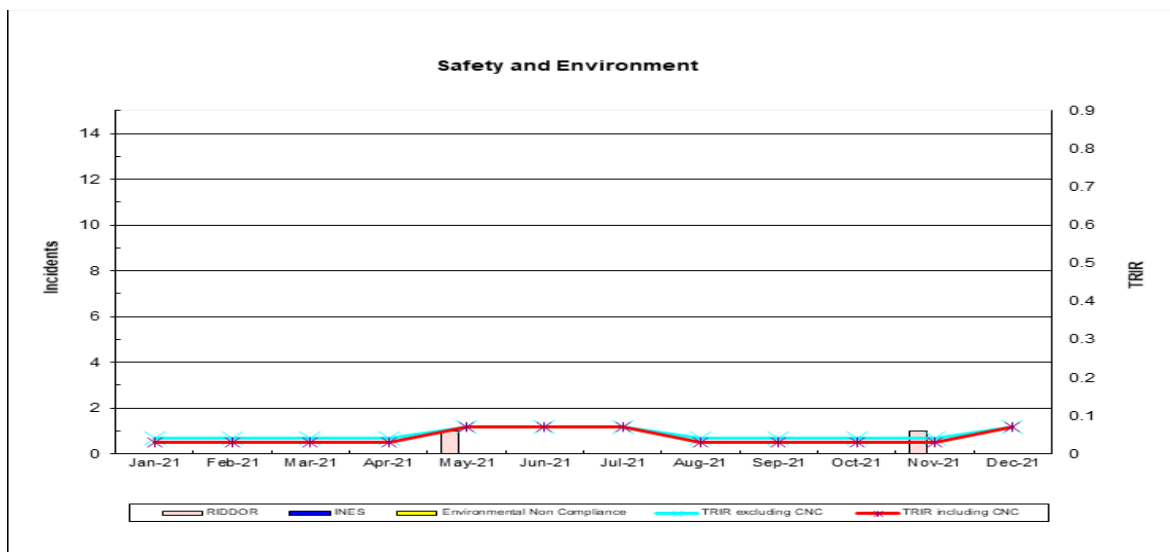
The Dounreay Managing Director will become a member of this ‘new entity’ Board. By the end of 2022 all processes should be complete with a view to implementation on April 2023. Progress to date has been relatively smooth.

- In November 2021, the Dounreay Commercial Team completed the closure of the site licence agreement between Cavendish Dounreay Partnership (CDP) and the NDA. Ownership of DSRL transferred from CDP to the NDA on 1 April 2021.

Operations during COVID-19

Around 850 people are working on the Dounreay site as the site continues to work within the Scottish Government’s Covid guidelines. Face coverings are worn indoors, hygiene standards have been emphasised and the 2m distancing is still to be observed. Office-based workers should continue to work from home, where possible, aligned with role need and management agreement. The workforce are also encouraged to take lateral flow tests twice per week and in the event of a positive result, individuals must isolate immediately and undertake a PCR test.

Health, Safety, Environment, Security



- While lifting a van bonnet for a security check, an individual injured their shoulder which resulted in a one day Lost Time Accident.
- A precautionary report was made to ONR regarding damage to a crane within the DCP Store Extension as it was being lowered due to high winds. This has subsequently been confirmed as not meeting the criteria for RIDDOR reporting and no further action is anticipated.

Interim End State Delivery

- **Site End State Review:** Following the Site End State Options Assessment stakeholder workshop in early October, which was attended by members of the DSG, work has been ongoing to write up the Options Assessment Report and the Gate B Paper which will describe the preferred site end state option. The Options Assessment Report is currently going through DSRL review, and the Gate B Paper is being prepared. The Gate B Paper will be submitted to the NDA Senior Strategy Committee for consideration – target date for submission remains March 2022.

Particle update

- Monitoring for particles continue with 5 particles (4 relevant and 1 minor) detected and removed during November and December 2021 from the Dounreay foreshore.
- Surveys of Strathy and Murkle were carried out and no particles were detected.
- A trial of the FIDLER (enhanced low gamma-ray energy detectors for increased sensitivity to americium-241 gamma-ray signature) equipped Groundhog beach monitoring system (SYNERGY + FIDLER, in operation by Nuvia Ltd at Sellafield) was performed during the period 19 Jul 2021 – 6 Aug 2021 on the Sandside and West Foreshore beaches. The trial will involve a side by side comparison during routine beach monitoring surveying of both the Sellafield (SL, SYNERGY + FIDLER) and Dounreay (DSRL, SYNERGY) systems to evaluate the possibilities of there being more americium rich particles, similar to DF/16/007, present on the beaches. No particles were found during surveys at the West Foreshore or Sandside Beach either by the DSRL or SL operated systems. This provides reassurance that there was no resident cache of particles similar to DF/16/007 (americium rich, caesium poor) present and undetected on the beaches. Comparative analysis of the two systems to reassure ourselves that the existing Dounreay system is BPM for our particles issue is underway and under discussion with SEPA’s ERMTT/PRAG(D).

Dounreay decommissioning update

Key project milestones for 2021/22 are provided below:

Target	Planned	Comment
DCP Store Extension – overall completion of main civil engineering construction of the drum store (without overall cladding)	31-Dec-21 Missed target Revised date: 19-Jun-22	On track <ul style="list-style-type: none"> • Security clearances, COVID restrictions and resource availability have caused delays • Major shield door (24m wide x 3m high) installed in August 2021 • 76 pre-cast concrete roof beams delivered - to be installed in 3 phases. Phase 1 roof beams lifted into place – video link: https://youtu.be/wvyxan55vFA

OFFICIAL

Target	Planned	Comment
		<ul style="list-style-type: none"> Construction materials ordered early and stored (to mitigate potential shortage due to Covid/Brexit) Civil works has been re-sequenced to allow acceleration of electrical and mechanical works during the winter period, this permits the whole building to be finished earlier but delays the completion of civils works. New target date under review Extended time for Security clearances, COVID restrictions, resource availability and higher than predicted winds have all caused delays Civil works has been re-sequenced to allow acceleration of electrical and mechanical works during the winter period, this permits the whole building to be finished earlier but delays the completion of civils works. Construction of drum store predicted to be Q4 2022. Phase 1 and 2 of roof floor slab pours complete.
Fuel remnants – completion of the disposition of Remnants Exotics fuel	31-Mar-22	On target <ul style="list-style-type: none"> No updates provided
Breeder fuel removal – continuation of breeder fuel removal transport	31-Mar-22	Not achievable <ul style="list-style-type: none"> 20+ elements out of reactor
Irradiated Fuels –completion of D2001 irradiated scheme design	31-Mar-22	On target
RHILW Gate 1 concept review	28-Feb-22 Not achievable Revised date 01-Mar-23	On target <ul style="list-style-type: none"> Optioneering prior to concept design Review will include high level concept info Contract placed Awaiting programme from contractors following contract award.
FCA North Design Review D1208 – completion of D1208 Design review	29-Jul-21	Complete
Shaft & Silo business case approved by DSRL Board ready for submission to NDA	31-Aug-21 Missed target Revised date: 31-Mar-22	On target <ul style="list-style-type: none"> NDA assurance reviews now sequenced before DSRL Board. Draft business case developed in September. Board advised to focus on a quality business case rather than chase a date. All supporting documentation issued to DSRL and NDA for initial review in December 2021. On track to go to DSRL Board in March 2022

Target	Planned	Comment
PFR Alkali Metal target – removal of the remaining bulk sodium from the bottom of the PFR reactor vessel	30-Sep-21	Complete
Project FORSSSE II (Integrated security solution) interim capability	31-May-21	Complete <ul style="list-style-type: none"> Further training will continue
Business Improvement – Delivery Centre Model	31-Oct-21	Complete <ul style="list-style-type: none"> Trialling alternatives to coordinating and delivering site activities Initially Fuel Cycle Area Pulls together all those who have a decision or role to play to deliver DCM Trial now extended to cover all of FCA and to continue to end Jan 21
Delivery of Business case to implement updated Life Time Plan	30-Mar-22 Not achievable Revised date 30 Mar-23	On target <ul style="list-style-type: none"> Weekly management workshops to continue to develop life time plan and business case strategies. Discussions on going with DSRL Board and Executive Team on strategic requirements and quality assurance aspects of LTP. Review of current timeline with transition of DSRL into Magnox.

- Lab 85 in D1200 is the latest redundant laboratory to be decommissioned. It was historically used for chemical analysis and contains 12 fume cupboards and four glove boxes with work commenced in size reduction. Once Lab 85 is fully decommissioned there is only 4 labs left to be cleaned out in the D1200 facility.
- In D1217 the team has started to remove the 7.2 tonne shield blocks cut from the concrete U-shaped cell suite which was a post-irradiation examination (PIE) facility that processed fuel elements from DFR, PFR and DMTR during its operational lifetime. The blocks are wrapped before being sentenced through the demolition bulk LLW route. These blocks have been part of the cells for 64 years and their removal is one of the final steps which will allow PIE cell diamond wire cutting to begin in March 2022.
- At the new Low Level Waste facility, rock slope maintenance was carried out using rope access techniques. CAN Geotechnical, along with Golder Associates (UK) Ltd have been working with Dounreay to carry out rock face stabilisation, including scaling of loose rock, installation of rock bolts and replacement of rock mesh. The work will ensure the excavations are safe in preparation for the first phase of backfilling around one of the vaults. The backfilling is an integral part of the disposal process and will be undertaken in tandem with grouting around the waste containers within the



vaults. The backfill is expected to commence in January 2022 with the first stage of grouting around the waste packages planned for April 2022.

THREE YEAR PROGRAMME LOOK AHEAD

As the Life Time Plan continues to be developed and timescales for completion, governance and approvals is expected by end March 2023, milestones outlined below cover the next three years of activities. This will be updated to include top level programme milestones over a five year period once the new Life Time Plan is approved. Activities to be covered in financial years 2022-23 to 2024-25 in summary form is given below. More detail on 2022/23 will be provided once key milestone delivery is approved by the NDA.

Facility	2022/23	2023/24	2024/25
D1204	Decommissioning		
D1206	Decommissioning		
	FCAN Enabling		
D1234	Care & Maintenance		
D2001	Operations		
	Irradiated Fuel Design		Construction
D1208	PFR raffinate operations		Decommissioning
	ADU Floc Construction	ADU Floc Operations	
DCP Store Ext	Construction	Operations	
DFR	Decommissioning		
	Fuel Operations		
PFR	Decommissioning		C&M
	Fuel design/ enabling	Fuel Operations	
Shaft/Silo	Design	Construction	
Remnants	Operations		
D3100 LLW	Operations		
	Rev to Environ safety case		
LLW Pits	Design/Enabling Work		C&M
D8570	Operations		
LLLETP	Operations		
DN060	Operations		
RHILW	Concept & Scheme Design		Detailed design
CHILW	Design	Construction	
D1209/D1201	Operations		

NB: Information above is based on three year work plan and may be subject to change dependent on development of new Life Time Plan.

Procurement

- Representatives from the DSRL’s Commercial Team attended the Scottish nuclear supply chain event and exhibition with Meet the Buyer in Dunblane on 2 December 2021. The one-day event gave suppliers the opportunity to meet with DSRL’s representatives. The event was supported by the NDA, Scottish Enterprise, Highlands and Islands

Enterprise and Scottish Development International.

- The project manager for Fuel operations, alongside a commercial representative, held a pre-engagement session, in Warrington, for decommissioning framework contractors working on the irradiated fuel disposition project. As part of a collaborative procurement process a presentation was provided to all contractors, some of whom had not previously been aware of the project, to raise their level of knowledge and enable them to tender more effectively.
- Cavendish Nuclear has been awarded a circa £20m contract to provide the capability to package solid intermediate level waste from the Dounreay Shaft and Silo. The contract award is for the Drum Handling Facility and covers detail design, manufacture, installation and inactive commissioning over a five year timeframe. The project forms part of the shaft/silo programme to allow the retrieval, sorting, processing and packaging of waste from these facilities for long-term storage. The facility will process and package a variety of waste streams into 500 litre drums which will then be encapsulated.
- In December 2021, Dounreay, for the first time, launched a reserved procurement. This means only companies with a base in Caithness can tender for the contract to fabricate and install an emergency staircase.

Dounreay Site Restoration Ltd
12 January 2022