

**DOUNREAY UPDATE REPORT
as of end October 2020**
Introduction

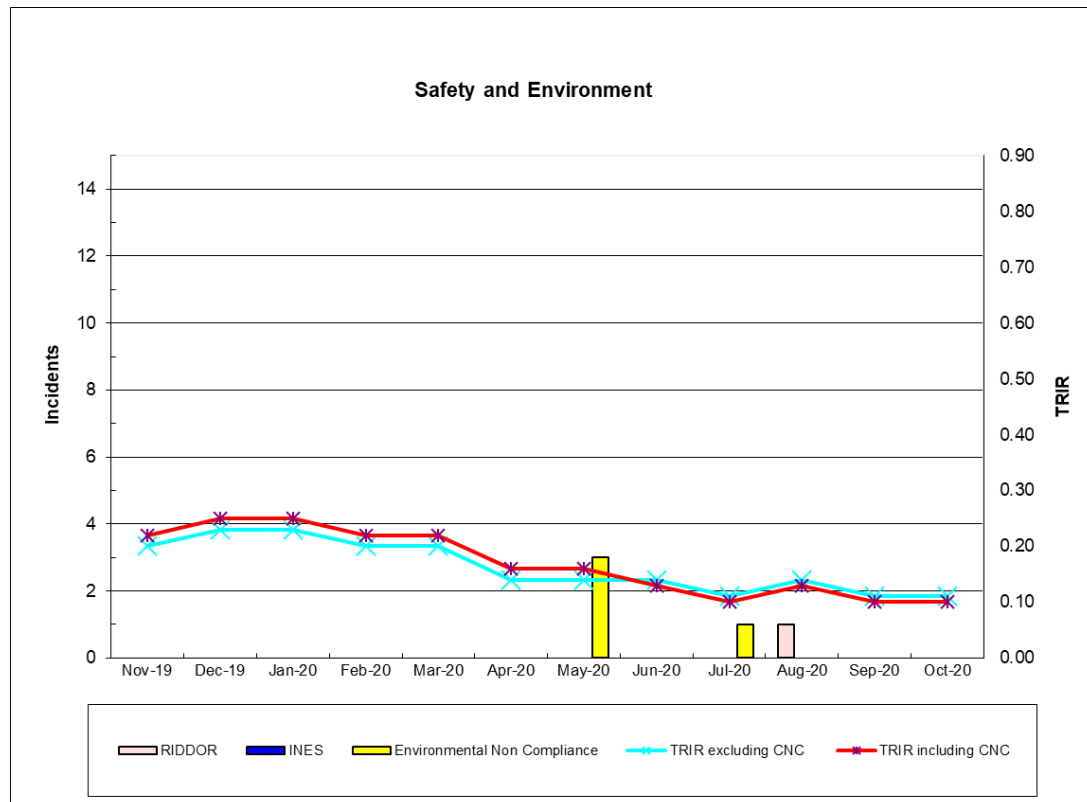
It was announced earlier this year that Dounreay Site Restoration Limited will become a direct subsidiary of the Nuclear Decommissioning Authority from the end of March next year. Preparations for this change are taking place, including detailed engagement with regulators. Announcements about the first senior management appointments are expected in the coming weeks.

Operations during COVID-19

The site continues to follow current Government guidance on COVID-19. For those who need to go on site, a film and series of guides have been produced to ensure familiarity with the latest rules. These guides are updated to reflect any changes in restrictions. Guidance includes the avoidance of car-sharing wherever possible and the wearing of face coverings where required.

More than 50% of DSRL staff continue to work from home. While the situation is being kept under constant review, the site's planning horizon has now been extended with a view that some staff will be working from home until at least the summer of next year. This is intended to provide some clarity to those able to work from home and ensure numbers on site are minimised in order to protect front-line safety and decommissioning activities.

Learning opportunities continue to be identified and will be considered and taken forward as part of the 'resume' and 're-imagine' phases of the site's response.

Health, Safety, Security and Environment (as at end October 2020)


- Senior managers are continuing to engage with teams and ensure that health and safety topics are discussed. While some on site management walkdowns are able to take place, the majority of sessions are being held virtually with different teams across the organisation.
- The latest total recordable incident rate is 0.11 (October 2020).
- In August an individual was injured when they slipped while crossing a pipe bridge and injured an arm. This resulted in a lost time accident and therefore was RIDDOR reportable.
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- The Highland Council (HC) Resilience Team is progressing its emergency arrangements plan. A public information leaflet will be issued on 13 November 2020 (along with a HC letter) to addresses within the detailed emergency planning zone. The HC website will be updated to show the Offsite plan, outline planning zone information and the public information leaflet and this will be available on 16 November 2020.

Dounreay decommissioning update

- As temporary working practices have been put in place, there has been an impact on a large number of programme activities which limits the decommissioning progress to cover in this report. Some work is progressing where it can be undertaken either via remote working, or through teams on site working in a COVID secure manner. Essential maintenance has continued to ensure that the site remained compliant.
- Work continues to progress on the development of a Near Term Work Plan (NTWP) which is a 3-year detailed plan for site decommissioning, alongside a wider Lifetime Plan which provides the blue print to take the site to closure. The NTWP will become a 3-year rolling plan which allows detailed planning for the in-years. Further information will be available in the new year.
- Targets for this year are nearing completion and DSRL is finalising these with the NDA.
- As part of our waste optimisation programme, a revised characterisation process has been developed by DSRL and this was implemented in February 2020. It builds on NDA, IAEA and regulatory best practice. This replaces an older process which was no longer fit for purpose and should lead to improved waste and decommissioning efficiencies over time. In some cases, the production of wastes with some of the 'old' fingerprints is now not compliant with the new process and would lead to a non-compliance with our permits. Therefore, a programme to review, update and underpin all fingerprints on a prioritised basis has been established.
- Work is expected to commence on 23 November to clear vegetation from the Mill Lade watercourse. The work will start at the A836 junction (with the Vulcan Road), requiring single lane closure on the Vulcan road, then will move north through the Dounreay site. It is expected to take three weeks to complete this work (weather dependent).
- Work commenced to replace the lighting heads on the offsite car park lighting towers on the 7 November. This work is expected to take 2 weeks to complete, weather dependent.

- As part of the clean-up of remaining small pockets of sodium left in PFR, a mock-up of the heel pool has now been erected to allow trials to be undertaken.
- The crane in DFR (Goliath Crane) is currently under repair to bring the it back into full service. Phase 2 repairs are forecast to finish in April 2021, but may be impacted by COVID-19 restrictions.
- A review on an oil and gas technology associated with evaporation is ongoing, with trials being undertaken within Dounreay's on site labs associated with various boil off temperatures. This could have benefits in D1204 pond treatment as well as other areas across site.
- The installation of shield door 5 for the DCP Store Extension is now complete. Civil work is progressing well with 4 wall pours completed during October. Manufacture of roof beams continues, with 50 out of the 70 now complete.
- The building associated with the ADU Floc has now been made wind and watertight with the fire and roller shutter door installation now complete.
- In order to support the supply chain during COVID-19 restrictions, DSRL is reviewing contracts to consider what possibilities there could be to bring some work forward. DSRL and NDA are working together to consider how this can be taken forward.
- Physical work on DMTR will recommence this month after a 16 week delay due to COVID-19 restrictions.
- As part of their ongoing training, the Dounreay Fire Brigade has commenced road traffic collision training (10 October) on the west runway (the area beyond the car park). Training is expected continue for a period of 6 weeks.

The Interim End State Delivery Team

- An unconstrained review of the site end state is ongoing. A contract to prepare a Gate B paper, which will describe the preferred end state option, has been awarded to the 'COSMIC' consortium of companies (NSG, Quintessa and Golder Associates).

An initial list of 'key components' for the site has been identified. These are facilities or areas of land whose individual end state could significantly influence the overall site end state. A framework against which the key components can be assessed has been developed, and initial work to gather and analyse land quality data for a number of the key components is underway. DSRL intends to trial the process to assess the key components and will then provide an update to DSG in the new year.

One of the most significant key components has been identified as the existing LLW Pits on the site. A separate contract has been awarded to Jacobs to develop concept designs for the decommissioning and closure of this facility. The credible options have been identified and the concept designs are being developed, with the aim of evaluating these at a workshop in the new year. A DSG representative will be invited.

- Phase 3 of developing a site-wide groundwater flow model is complete. A 3D groundwater flow model has been built and calibrated. The next phase will be to run a number of scenarios in support of the site wide environmental safety case.
- The full environmental monitoring programme was completed in quarter 2. Quarter 3 has now started which includes environmental monitoring programme (EMProg) and groundwater monitoring in support of our permit and licence.
- Raeburn Drilling and Geotechnical (Northern) Ltd has installed 2 additional groundwater boreholes in Zone 1B (PFR Field). The purpose of these boreholes is to provide closure evidence relating to proving the absence of Volatile Organic Compounds in the soils and groundwater/rockhead.

Particles update

- Since the last update, 1 minor particle has been detected and removed from Sandside beach.
- Routine beach monitoring continues as per programme (i.e. not affected by our COVID-19 response). The surveys at Strathy and Murkle will be carried out as normal in November.

Socio economics

At this difficult time, there is recognition that some of the conditions linked to drawdown of funding for socio economic projects will be difficult to deliver. A flexible approach will be taken to continue to support these projects into the 2020/21 financial year.

The NDA and DSRL also recognise that while our collective socio-economic support is focused on economic growth, there is a need to be respond to business recovery as we ease out of COVID-19 restrictions. Consideration has been given to ensure that the Dounreay Socio Economic Alliance (DSEA) - NDA, PBO and DSRL - is able to maintain the governance around consideration of socio-economic funding, while allowing quicker decisions to be made.

A DSG virtual meeting was held on 14-October and focused on socio economics and therefore a detailed briefing was provided at this time.

Work is now ongoing to finalise the socio economic programme, ensuring priority on workstreams including the skills audit and nuclear services hub. This is on schedule to be provided to DSG members later this year.

A workshop was held between DSRL, NDA, North Highland College and a number of other stakeholders to agree a structure to take forward a number of potential initiatives including R&D as well as skills and training.

STEM related activities have obviously been impacted due to COVID-19 and given these restrictions could be in place for some considerable time, work has been ongoing to develop different ways of delivering STEM activities. Of note:

- **Engineering Industry Day:** Dounreay is hosting the annual Engineering Industry Day on 24 November. This event is aimed at senior school pupils and full time North Highland College engineering students who are interested in applying for an apprenticeship. Pupils and students will be given advice on their mock application forms and CVs; interview preparation; talk to current apprentices on their experiences through the application and interview process and also North Highland College staff inform them of other paths they can take if they

are unsuccessful in securing an apprenticeship. Due to the current restrictions this year's event is virtual; both the schools, college and industry were keen for this event to continue so are working hard to ensure the pupils can still gain the same experience. The event is supported by Rolls Royce, Nuvia, JGC Engineering and North Highland College UHI.

- **Mock Interviews:** Staff from Dounreay are supporting Developing the Young Workforce's mock interviews for all S4 pupils in Caithness & North Sutherland. Interviews take place at Farr High School on 9 November, Wick High School on 1 and 2 December, and Thurso High School during week commencing 7 December. Due to the current restrictions, these interviews are taking place virtually.

COVID-19 support

- Requests for support and/or funding are now considered on a case by case basis.
- Approval was provided to commit funding to replace 2 portacabins currently being used at medical practices within Caithness. Both portacabins were provided by community organisations (Pentland United Football Club and North Coast Entertainments). Because of the uncertainty of when these portacabins will no longer be required by the medical practitioners, the 2 medical centres requested funding to allow the replacement of these portacabins back to the community organisations. This was approved and the medical centres have been asked that when there is no longer a requirement for these portacabins for medical requirements, they should consider donating for community use.

Our people

| | FTE Target | FTE Actual |
|-----------------------|-------------------|-------------------|
| Current - DSRL | 1,190 | 1,168.8 |
| Current - ASW | | 95 |

- Eight Engineering and 3 Business Administration apprentices started work at Dounreay in September 2020.

Dounreay Heritage

- No heritage objects were collected in the period.
- Two leavers completed a Dounreay Memories form.
- James Gunn, in his role as DSRL's Heritage Officer, chaired the first meeting of the NDA Heritage Panel which was held using Microsoft Teams. The first draft of the document covering the strategic introduction to the NDA's heritage initiative was presented to all NDA site representatives. A summary note of Dounreay's history was used as an example for other sites to follow and subsequently insert into the document in the coming months. James has provided advice and guidance to the NDA and is the author of the various documents being written for the NDA initiative.

- James Gunn has also been in discussion with the heritage officer at the Atomic Weapons Establishment, Aldermaston, to benchmark and exchange experiences, particularly for building recording and collecting objects.
- James Gunn co-authored a conference paper abstract about the NDA heritage initiative. The international conference is organised by The International Committee for the Conservation of Industrial Heritage (TICCIH) and is due to be held in Montreal in September 2021.
- Dounreay, along with Sellafield and the NDA, has indicated its support for a proposed international research project on nuclear heritage to be led by Dr Egle Rindzeviciute, Associate Professor, Kingston University, London. This will involve sharing and learning knowledge with representatives from Sweden, Lithuania and the UK.
- The guidance note for recording oral history has been revised in line with the latest guidance given by the UK Oral History Society. There are particular issues associated with the latest data protection regulations.
- Sellafield is intending to preserve a reactor control room and asked the site for advice on the processes and issues involved, based on the experiences of donating the DMTR and DFR control rooms to museums. Discussions were held and copies of relevant information was shared.

Visits

- Newly appointed NDA Chair, Ros Rivaz and NDA Chief Executive, David Peattie held a number of virtual meetings with DSRL management, Trade Unions and elements of the workforce. During these virtual meetings, the DSG Chair and Vice-chair also had the opportunity to virtually meet with both chair and CEO and David Peattie also attended part of the DSG full meeting held on 14 October 2020.

Dounreay Site Restoration Ltd
4 November 2020

GLOSSARY

| Abbreviation | |
|---------------------|----------------------------------------------------------------------|
| BCP | Baseline Change Proposal |
| DACR | Days Away Case Rate |
| DCP | Dounreay Cementation Plant |
| DFR | Dounreay Fast reactor |
| DIT | Dounreay Improvement Team |
| DMR | Dounreay Modification Report |
| DMTR | Dounreay Materials Test Reactor |
| DPF | Dounreay Planning Framework |
| DSRL | Dounreay Site Restoration Ltd |
| EIA | Environmental Impact Assessment |
| ES | Environmental Statement |
| IFBS | Irradiated Fuel Buffer Store |
| IFC | Irradiated Fuel Cave |
| INF | Incident Notification Form |
| LLLETP | Low Level Waste Effluent Treatment Plant |
| LLW | Low level waste |
| LTA | Lost Time Accident |
| mSv | milli Sieverts |
| NDP | NaK Disposal Plant |
| OJEU | Official Journal of the European Union |
| ONR | Office for Nuclear Regular |
| PBO | Parent Body Organisation |
| PCP | Project Control Procedure |
| PFA | Pulverised Fly Ash |
| PFR | Prototype Fast Reactor |
| PSR | Preliminary Safety Report |
| RAMT | Radioactive Material Transport |
| RIDDOR | Reporting of injuries, Diseases & Dangerous Occurrences Regulations. |
| RSA | Radioactive Substances Act |
| SEPA | Scottish Environment Protection Agency |
| SID | Sodium Inventory Destruction Plant |
| STA | Sample Tank Annex |
| TRIR | Total Recordable Incident Rate |
| WRACS | Waste, Receipt, Assay, Characterisation and Supercompaction |