HUNTERSTON A

SITE STAKEHOLDER GROUP REPORT

ACTING SITE DIRECTOR – ALASTAIR WALKER

DECEMBER 2020

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SITE CLOSURE DIRECTOR'S REPORT TO THE SITE STAKEHOLDER GROUP
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Hunterston A continues to make good progress on our programme of work to Care and Maintenance. We continue to be adequately funded by the NDA and remain committed to addressing the nuclear liabilities at Hunterston A in a safe, secure manner with care for the environment.

1 SITE DIRECTOR OVERVIEW

Hunterston A site is part way through its Care and Maintenance Preparations (C&MP) phase of decommissioning which, subject to NDA approval and funding, is currently forecast to complete by October 2030.

The site completed the slow and safe mobilisation of its workforce and facilities during the reporting period. All facilities are now operational and the site has recommenced the recovery of Intermediate Level Wastes (ILW) and decommissioning of the Cartridge Cooling Ponds (CCP). The site continues to manage challenges posed by the Covid19 pandemic and has had to deal with five positive Covid cases and a number personnel self-isolating for various reasons. The focus remains the safety of our personnel and the site continues to monitor any changes in guidance and/or legislation (wearing of face coverings) and has implemented learning from other sites and company guidance in order to enhance and improve our existing control measures.

Throughout the period we took the opportunity to review and update our contingency plans detailing how we would respond to a positive Covid case. This, together with a detailed plan as to how we would respond to Covid reducing the operational capability of the site, has put us in a healthy position should we need to react to an emergent situation.

We have increased the welfare capacity and service at Hunterston with additional welfare accommodation and vending machines. This has been as a direct response to Covid reducing the existing capacity of the facilities on the site.

Magnox Limited provided flu vaccination clinics across the company and at Hunterston approximately 70% of employees attended a clinic on Wednesday 11 November 2020.

Hunterston ran a number of successful Target Zero safety campaigns on *'Operational Experience Feedback'* and *'Equality, Diversity & Inclusion'.*

2 SAFETY OVERVIEW

Safety Review Performance

Safety Performance on site continues to be good and it has now been **76** months (at end of October 2020) since the last Lost Time Accident (LTA). The Total Recordable Incident Rate (TRIR) remains at 0.00.

The consistency in our safety performance is a product of a continuing good Safety Culture at HNA underpinned by the company-driven Target Zero campaigns which are designed to raise awareness and maintain safety focus whilst delivering the decommissioning of Hunterston A Site. These targeted campaigns are aimed at all persons who work on Magnox sites and continue to be well received as we strive for Zero Accidents, Zero Incidents and Zero Harm. This continues to be utilised throughout COVID 19 Pause and subsequent Return to Work with over170 people on site daily at this time. Safety of our staff remains a high priority and our COVID Secure arrangements are continuously reviewed and changed to meet current and changing situations.

In addition our Environmental performance remains focussed and we continue to maintain an open relationship with SEPA supported by weekly meetings through the COVID pandemic.

Finally, our Environmental performance has again been rated "Excellent" by SEPA using their criteria based on performance across a number of areas.

3 EMERGENCY PREPAREDNESS

The Site Accident and Emergency Contingency arrangements are working well on site and a continual programme of familiarisation/demonstration exercises continue to be undertaken by the Site Contingency Team, Programmes and Contractors. These training exercises ensure that the arrangements and teams are ready to respond to any event that occurs on site as a result of the work being carried out.

The focus of these exercises remains Security and Safety focussed with additional COVID-19 responses. Five exercises have been completed to date including the ability to respond to localised COVID symptoms; localised COVID restrictions that may impact the site as well as Security focussed exercises to test our arrangements and challenge our people. Feedback from the exercises has been positive and the learning shared with our colleagues at other sites.

The Site Contingency Team meets frequently with the Emergency Preparedness Engineer to discuss the Accident and Emergency arrangements, recent events and exercises to identify any learning and improvements.

4 DECOMMISSIONING PROGRESS

4.1 Solid Active Waste Bunker Retrieval (SAWBR) Project

The SAWBR facility was constructed to recover solid HAW (Higher Activity Waste) from within the site's five HAW bunkers. This is achieved by using remotely operated vehicles (ROV's) to fill hoppers that are then tipped into RWM (Radioactive Waste Management Ltd) approved 3m^3 stainless steel boxes.

The initial breakthrough into Bunker 5 was achieved in March 2014 and Bunkers 5, 4, 3 and 2 have been sequentially emptied to date. Progress to recover the wastes from Bunker 1 continue to progress albeit at a slower rate than the wastes from Bunkers 5-2. This is due to the higher probability of fuel fragment carry over form the stations operational phase. Detailed sorting of the waste via the remote vehicle is carried out before loading into waste buckets. These buckets are then put through a Fuel Detection System to provide assurance that the waste can be safely discharged into the stainless steel storage box.

Following a maintenance outage the SAWBR facility was returned to full operations in November and Bunker 1 waste retrieval works were restarted. Good progress has been made in the second half of the month.

The SAWBR team have now safely exported **54** 3M³ boxes of Bunker 1 waste to the ILW Store.

This brings the total of 3M³ boxes filled with ILW waste and exported from all Bunkers to the ILW Store to **946**.

Following the restart, it was necessary to increase the Bunker 1 wall aperture, using the Brokk Remotely Operated Vehicles, to allow waste flow more easily from Bunker 1 into Bunker 2 for processing *(see picture)*.

The project expects to complete against a forecast out-turn total of **1110** 3M^3 boxes by Summer 2022, factoring in the slower rate of processing in Bunker 1 and the impact of the COVID-19 pandemic.

Although the past few months have been incredibly challenging, it is a credit to everyone in the HAW Operations team and across the site that issues arising continue to be resolved promptly in a professional manner.

4.2 Wet Intermediate Level Waste Retrieval & Encapsulation Plant (WILWREP)

The WILWREP facility was constructed to recover liquid HAW (Higher Activity Waste) from associated sludge, acid and resin tanks around the site. Following retrieval into a RWM (Radioactive Waste Management Ltd) approved 3m^3 stainless steel container the waste contents are mixed with encapsulant powders and a sacrificial paddle to achieve an immobilised waste form within the 3m^3 stainless drum.

The WILWREP Sludge Retention Tanks (SRT) Nos 3, 2 and 1 have now been cleared of 'bulk' sludge with a cumulative total of **132** 3M^3 Drums now achieved.

During November the WILWREP team have been completing the remaining outstanding maintenance outage activities which will allow the facility to return to full operations. Limited operations have already successfully recommenced with the consolidation of sludge from SRT3 to SRT1 being resumed *(picture shows pumping of sludge and supernatant from SRT3).*

Activities to consolidate the residual materials from SRTs 2 and 3 into SRT1 have been progressed since early 2020 and the residual sludge consolidation work is forecast to be completed in early 2021. The remaining ion-exchange resin stored in ARSV1 (Active Resin Storage Vessel 1) will be mobilised using an air lance which will be tested on completion of the outstanding WILWREP maintenance tasks.

4.3 Solid Intermediate Level Waste Encapsulation (SILWE) Project

The SILWE facility exists purely to encapsulate the 3m3 packages containing the solid waste retrieved / recovered from SAWBR with a grout mix. This is expected to take up to 3 years to encapsulate approximately 1500 stainless steel boxes. Once encapsulated, the containers will then be in their disposable state.

All elements of plant are electrically and mechanically installed within the SILWE facility and inactive commissioning activities continue with a number of defects currently being worked through.

Active commissioning is forecast to commence in early 2023.

Now that the plant has successfully been returned to work, the project can focus their attention to progressing with programmed works.

4.4 Ponds Programme

Pond Purge Sump (PPS)

Prior to the Covid-19 Operational Pause in March, the Pond Team carried out preparatory works at the PPS, which included the removal of instruments and durbar plates to improve access at the top of the lattice frame structure. The steel lattice frame requires to be removed from the sump and size reduced for waste processing. During the lockdown phase, the Safety Case process was continued. The Decommissioning Plant Approval Form (DPAF) was reviewed by all the Subject Matter Experts (SMEs) and is currently with the Design Authority for final approval.

The option to utilise a hydraulic jacking system has been progressed. The hydraulic jacking equipment was agreed and has been procured. The designed jacking frame was approved and was manufactured locally off-site and the equipment has now been delivered to the site following the introduction of the Site's Return to Work Plan.

Once the Cartridge Cooling Pond building has been opened following the completion of electrical inspections, ventilation systems and cranes made operational, the preparation tasks will continue to enable the removal of the lattice frame to commence utilising the hydraulic jacking system.

(Picture shows removal of durbar plates from steelwork around top of the PPS lattice frame).

Active Effluent Treatment Plant

Work has been progressing before and during the Operational Pause in relation to decontamination of the Active Effluent Treatment Plant (AETP). There are two phases to this, the first being the introduction of the New Effluent Treatment Plant (NEffTP). The NEffTP is a close replica of the plant currently used to process miscellaneous effluent, but will be housed outside of the AETP. This will be used to treat the miscellaneous effluent produced by the Site until it enters Care & Maintenance. The NEffTP will allow these miscellaneous effluents to be diverted away from AETP and allow the decommissioning of the facility to progress.

The second phase covers both the retrieval of wastes from the various tanks and the subsequent decontamination of them. Optioneering studies have been carried out for each of these processes and work is progressing on the preparation works necessary to deliver them.

4.5 Hunterston Reactors Care & Maintenance Preparations

The following essential activities are required on both reactors

1. *Column Base Repairs*
2. *Removal of redundant cradle rails from exterior of buildings*
3. *Replacement of open tread and Durbar type flooring and treads at various locations within both buildings*

We are in the clarifications stage of the tender assessment and are looking to have a contract awarded in February 2021, with mobilisation soon after. The programme duration is around 12 months.

There is to be a separate contract awarded for Reactor Roof Interim Repairs which consists of waterproofing for a period of not less than 5 years. The work is due to go out to tender shortly.

Both contracts will deliver a package of works for the essential safety critical remedial repairs to avoid further structural degradation of the assets and provide safe access routes throughout both reactor buildings.

5 PEOPLE

5.1 Site HR

Following the postponement of implementing a four Day Working Week across both the Scottish Sites, due to the pause of site activities in relation to COVID19 precautions, we have carried out a review of the original business case. This is under consideration for approval by the Magnox Executive Team and we are currently awaiting feedback on the feasibility of this being introduced in the near future.

We have made significant progress through consultation with our trade unions and affected individuals within our shift operations and security teams on the organisational change to remove the 24/7 shift operations presence at the site. The revised arrangements introduce a Lead Guard role to be the main point of contact for any incidents during silent hours. Consultation on both the proposed structure and working patterns has now concluded. We are now in the process of filling the remaining vacancies within Security and moving onto individual counselling for our Shift Team who will transition into day based roles where their valuable skills can be further utilised to progress the decommissioning programme. Work streams associated with this have been somewhat delayed and will require the new Lead Guard role to be in place and individuals trained and competent in the role before implementation.

The Company have in recent months concluded consultation with Senior Trade Union Representatives and reached agreement on the form of the New Starters' Contracts. This will now allow recruitment into Magnox Ltd on this type of contract for ongoing roles that meet the business case criteria. This will be a significant step forward for Magnox and Hunterston, who are reliant on Supply Workers and provides greater flexibility in our resourcing routes and greater opportunities in attracting candidates for future needs.

Significant work has been ongoing by Hunterston representatives in conjunction with COGENT and the wider nuclear industry on development of a Scottish Apprenticeship - Radiological Protection Framework. This has now been conditionally approved for use and next steps will be to seek appropriate providers to support the nuclear industry with delivery of this programme. Using this framework Hunterston are intending to recruit a small number of apprentices who we expect will be offered continued employment upon satisfactory completion of their apprenticeship.

We have continued to have regular constructive engagement with our Trade Unions with regular dial-ins with our Site Joint Council to progress people centred issues both associated with the COVID19 situation and other business related activities..

5.2 Occupational Health

Short term sickness levels remain good and the long term sickness rate has reduced.

Since the last report we have had five individuals who have contracted COVID19, only one which has not returned following the self-isolation period and required hospital treatment. They are now recuperating at home. We are continuing to support individuals mental health and wellbeing through our Wellness Group, Mental Health First Aiders and various Company information, including wellbeing for those who are currently Working From Home.

6 RADIOLOGICAL SAFETY

Explanatory note: The maximum permissible dose to a radiation worker in the UK is 20mSv (milliSieverts) in a calendar year. The average annual radiation dose to the UK population from all sources is 2.6mSv. Collective dose is usually measured in man.milliSieverts. For example, if ten people were each to receive 0.1milliSieverts during a particular task, then the collective dose for the task would be 10 people x 0.1mSv each = 1 man.milliSievert.

Doses for the calendar year 2020, to the end of September, are as follows;

- *Approximately 165 employees and visitors received a total collective dose of 4.067 man.mSv between them*
- *Approximately 165 contractors received a total collective dose of 4.381 man.mSv between them*
- *The highest individual dose received by an employee was 0.685 mSv*
- *The highest individual dose received by a contractor was 0.636 mSv*

The majority of dose accrued in 2020 has been from a combination of the pond decommissioning project and other site projects. All doses in these projects have been prior-assessed, planned and are tracked throughout the project duration to ensure that no limits are exceeded and that doses are kept as low as reasonably practicable.

7 ENVIRONMENT (November 2019 to October 2020)

In late March the Hunterston A site was put into a safe and secure state. Between late March and July, when the restart of physical operations recommenced, there were no solid, liquid or gaseous discharges with the exception of gaseous discharges made as a consequence of reactor breathing. This environmental summary includes reporting figures for the period when the site was put into an "operational pause" in reaction to the national Covid19 lockdown.

7.1 Radioactive Discharges

Solid

Low Level Waste (LLW) disposals to the Low Level Waste Repository (LLWR) continue. 25.50 m^3 of LLW and VLLW with a total activity of 0.79 GBq was disposed of during the twelve month period from November 2019 to October 2020**.** There is no limit on the volume or radioactivity content of LLW and VLLW being disposed of under the site EA(S)R Permit. The main contribution to these waste consignments was decommissioned plant, equipment, and materials generated during decommissioning operations.

Liquid

The main sources of liquid radioactive discharges during the period November 2019 to October 2020 were decontamination of various areas within the cartridge cooling ponds building and routine waste water arisings from the site active drain system.

Radionuclide or Group of Radionuclides	**Annual Limit**	**Activity discharged (Nov19 to Oct20)**
Tritium	30 GBq	0.013 GBq
Caesium-137	160 GBq	0.043 GBq
Plutonium-241	2 GBq	0.001 GBq
All alpha emitting radionuclides not specifically listed taken together	2 GBq	0.005 GBq
All non-alpha emitting radionuclides not specifically listed taken together	60 GBq	0.033 GBq

Gaseous

The main contributions to gaseous radioactive discharges were ventilation systems operating in contamination controlled areas and reactor vessel 'breathing'.

Authorised Outlet, Group of Outlets or other discharge route	**Radionuclide or Group of Radionuclides**	**Annual Limit**	**Activity discharged (Nov19 to Oct20)**
All authorised outlets taken together.	Tritium	100 MBq	23.6 MBq
	All other radionuclides (excluding tritium)	3 MBq	0.302 MBq
Discharges made as a consequence of reactor breathing	Tritium	3000 MBq	518.66 MBq
	Carbon-14	200 MBq	58.49 MBq

7.2 Non-radiological Environmental update

Between April and September there was a requirement to carry out extended maintenance of the sites sewage treatment plant in order to protect the reed bed area from deterioration. The combination of warm weather and lack of use of toilet and welfare facilities on the site during the lockdown period posed a risk to the sewage plant becoming non-functional. In order to ensure the plant maintained functionality, a regime of weeding, watering, and re-planting of reeds within the beds was carried out during the summer. This has proven successful with recent sewage plant effluent samples confirming that the plant is still operating within compliance parameters.

Surveillance and analysis of the sewage treatment works effluent now continues as normal, ensuring compliance with the CAR discharge licence. Treated sewage effluent from the plant continues to be independently assessed by SEPA throughout the year. Results from an independent off-site laboratory analysis verify that the sewage treatment works reed beds continue to work efficiently to maintain good quality effluent.

Monitoring and trending of data for resources such as water, electricity and fuel continues to determine where use can be minimised, in line with the site Environmental Management System. Over the period November 2019 to October 2020 the site used 15.55 Terra Joules (Tj) of energy, 15.15 Tj attributed to electricity consumption and 0.40 Tj attributed to fuel use in site vehicles, equipment, and generators. This equates to a fuel consumption volume of 10.27 m^3. In the same 12 month period the site water consumption was 6,711 m^3.

New reporting requirements have been put in place for waste disposal and recycling with new reporting groups being established for use in the company unified dashboard. In line with this, reporting figures for waste disposal and recycling rates are only available going forward from April 2020.

Over the period April 2020 to October 2020, 16.04 tonnes of waste was collected for consignment from site, 12.07 tonnes was consigned for recycling, recovery, or composting, and 3.97 tonnes consigned for disposal to landfill. This gives a recycling rate of approximately 75%.

7.3 Environmental Events

There was one significant environmental event in the period May 2020 to October 2020. It was identified that the sites Miscellaneous Cartridge Filtration Plant, used to abate particulate within miscellaneous radioactive aqueous waste mainly originating from showers and sinks within the sites Radiological Controlled Area, was in operation whilst the annual Environmental Maintenance Schedule (EMS) activity was suspended. The annual EMS activity, due to be performed on the plant between May and July 2020 to demonstrate that the filtration plant was providing adequate abatement, was suspended in March 2020 due to the safe pause to non-essential work as a result of the Covid19 pandemic.

The aqueous waste which passed through the plant during this period remained on site within the Replacement Delay Tank (RDT). The EMS activity was successfully completed demonstrating that the filtration plant continued to provide adequate abatement during use which allowed the suspension to be removed. There were no discharges of aqueous waste from the RDT to the environment whilst the EMS activity was suspended.

8 SOCIO-ECONOMIC / STAKEHOLDER UPDATE

During the first few months of the Coronavirus pandemic, a number of non-essential staff at Hunterston A were deployed to support frontline services in the local community.

Also, through the NDA funded Magnox Socio Economic Scheme, £25,000 was provided to North Ayrshire Council to support the North Ayrshire and North Coast Food banks.

For 2020/21 onwards Magnox has changed the application processes for socio-economic funding requests from the communities around our sites. The change brings Magnox, and the other NDA site licensed companies, together in a streamlined online grant application process.

The new electronic application form can be found on our external website at **https://www.gov.uk/government/collections/magnox-working-with-our-communities**

The format for grants remains the same however – we have a small grant scheme for funding of up to £1,000 (Good Neighbour level), while larger requests, and those for multi-year funding, of up to £200,000 are expected to comply with a range of criteria aimed at creating resilient economies, thriving communities, sustainable incomes and growth for our communities.

Grant requests for amounts larger than this need to be discussed with either **Mair Jones** or **Haf Morris** in the first instance. All contact details are on the website.

If you are involved with, or know of, a group who you think could benefit from socio-economic funding then please highlight the scheme to them.

To date there has been one successful Good Neighbourly award being processed in the Hunterston region and a couple of larger projects which have been submitted.

9 SITE VISITS AND KEY DATES

Hunterston A Site continues to attract the right kind of interest through our good safety and business performance. Below is a selection of visitors / key dates during the period – this has obviously been restricted due to Covid19 restrictions.

DATE	EVENT / VISIT
14th -16th September	Bill Kings – ONR Inspection
15th September	Higher Active Waste walk down - EDF
23rd September	Hunterston Decommissioning Teleconference Update from Scottish Sites Closure Director, John Grierson to SSG Group Chair, Rita Holmes & Vice Chair, Stuart McGhie
29th September – 1st October	First Aid Training
27th October	John Grierson – Magnox Nuclear Operations Director
28th October	Hunterston Decommissioning Teleconference Update from Scottish Sites Closure Director, John Grierson to SSG Group Chair, Rita Holmes & Vice Chair, Stuart McGhie
11th November	Site Flu Vaccination Clinic
5th – 7th October	First Aid Training
25th November	Hunterston Decommissioning Teleconference Update from Scottish Sites Closure Director, John Grierson to SSG Group Chair, Rita Holmes & Vice Chair, Stuart McGhie