



# **HUNTERSTON A**

## **SITE STAKEHOLDER GROUP REPORT SITE CLOSURE DIRECTOR**

**SEPTEMBER 2019**

## **HUNTERSTON A SITE CLOSURE DIRECTOR'S REPORT TO THE SITE STAKEHOLDER GROUP JUNE 2019**

**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 SAFETY OVERVIEW**

#### **Safety Review Performance**

The site continues to build on the excellent safety performance and has now completed 63 months since the last Lost Time Accident (LTA) on site. Day Away Case Rate (DACR) and Total Recordable Incident Rate (TRIR) remain at zero.

The Target Zero campaign rolls on and continues to raise awareness on various topics with a focus on maintaining safety and protection of the environment. Target Zero topics for this reporting period were Behaviours and Unsafe Acts (June), Transport Safety (July) and August was Sustainability. Sustainability focused on "Think Global and Act Local", with the aim of raising awareness of the options and benefits of adopting sustainable practices and products and encourages their use.

The site's reporting culture remains strong with consistent numbers of Learning Capture Forms (LCF's) being raised each month. LCF's are the site vehicle for recording events on site whether it is for injury, near miss, unwanted events including positive actions (praising good practices).

The Safety Representatives on site continue to meet fortnightly to discuss and raise issues with the site EHSS&Q Management. The site has provided the topic for September's company Target Zero Topic which is "Safety Representatives". The site Safety Representatives; both Magnox and Contractors, have produced the literature and posters to be used during September Target Zero campaign to raise awareness of Safety Representatives and the benefits of having them on site.

### **2 EMERGENCY PREPAREDNESS**

The site's Accident and Emergency Contingency arrangements are being maintained and tested frequently to ensure they remain in a ready state.

The site contingency teams, self-performing teams and contractors have been undertaking short demonstration exercise scenarios against foreseeable events/situations that they could face whilst undertaking their daily tasks. A recent site contingency exercise had identified that having evacuation chairs on site would improve the capability of recovering an injured, mobility-challenged person down the reactor building stairs in an emergency situation.

Two evacuation chairs have been purchased and are in the process of being placed on site for use in emergency situations.

### 3 DECOMMISSIONING PROGRESS

#### 3.1 Ponds Programme

Following the removal of the Caesium Removal Units (CRUs) and the cleaning and surveys of the two cells, the deplanting team returned to the Pond Water Treatment Plant (PWTP) Valve Gallery and removed the remaining pipework associated with the CRUs including access into the resin transfer pipe trench to carry out terminal isolations. The waste was processed and handed over to the Waste Team. This completes the deplanting of the PWTP Valve Gallery.



*PWTP valve gallery with all redundant pipework systems deplanted*

In recent months the existing effluent within the Miscellaneous Delay Tanks was transferred to the Miscellaneous Receiving Tanks in collaboration with the site Operations department.

Coring and cutting operations were then carried out to create five access doorways between the pump house, the three miscellaneous delay tanks and the two CCP delay tanks.

These will enable access to process and remove the residual PVA contaminated rainwater from the CCP Delay Tanks. The main advantage of providing permanent access to each of the tanks is that it removes the need for temporary works in future when the project will decontaminate the tanks in readiness for handover to Plant and Structures.



*Coring rig in operation at a tank opening      View of access doorways between the tanks*

### 3.2 Solid Active Waste Bunker Retrieval (SAWBR) Project

Since Bunker 1 breakthrough was achieved in April, waste retrievals have been a little slower than expected due to bedding in of the new Fuel Detection System and the detailed segregation of waste required to satisfy these new limits. Across the reporting quarter June – August 2019 a further twelve 3M<sup>3</sup> boxes have been successfully processed from SAWBR. This brings the total of 3M<sup>3</sup> boxes filled with ILW waste and exported to the ILW Store to **909**.



A meeting to review the information learned from the initial Bunker 1 waste recoveries was held in Mid-July with a view to improving efficiencies. This meeting continues to highlight the challenges being faced during recovery and improving process efficiency.



The plant has also been shutdown to allow detailed Electrical Distribution Board Testing and inspection work in early July as well as to observe routine planned maintenance in SAWBR week commencing 29 July 2019 and this also provided an opportunity to progress non process dependant Maintenance Shutdown activities and housekeeping tasks within the facility. The Plant returned to service on 2 August 2019.

Some technical issues encountered during waste package import into the ILW Store has prevented further packages from being exported in SAWBR until resolved. Investigations are currently underway and it is hoped that the ILW Store can be restored to its operational availability as soon as possible to accept packages from the SAWBR and WIWLREP plants.

### 3.3 Wet Intermediate Level Waste Retrieval & Encapsulation Plant (WILWREP)

Since returning the WILWREP facility back to operational service at the end of May the project has focussed on the recovery of materials out of Sludge Retention Tank No 1.

A consistent amount of solids per volume of material recovered has been difficult to achieve using the same successful method employed across Sludge Retention Tanks 2 and 3. This has resulted in trials within the inner tent during pumping activities to determine the best course of action to retrieve SRT1 waste.

Drum encapsulation has also proven to be very problematic with the waste form hardening differently from Sludge Retention Tank2/3. This is resulting in more bleed water generation than experienced previously. A plan was discussed with support from the company's technical experts and drums 112-114 inclusive were recovered to compliant package status with the removal of this bleed water. The canyon system will be modified to allow remote removal of bleed water.

### 3.4 Solid Intermediate Level Waste Encapsulation (SILWE) Project

Progress has been limited this quarter.

The second phase of setting to work of the grout plant is due to commence over the next few weeks, as the modifications and outstanding fault observations are rectified and awaiting a re-test.

The swabbing and bolt sequences of the remediation cell robot has taken longer than expected to implement, but progress continues to be made.

The optical character recognition (OCR) system is now complete and has been successfully set to work.



*OCR modifications in progress*



*Grout plant modification phase*



*Rem cell robot bolt sequencing*

### 3.5 Hunterston Reactors Project

#### Risk Based Deplant (RBD)

The project has carried out 382 RBD assessments across the two Reactors as per PD-001 Asset Management Process Document. Completing the assessments is a major step forward in allowing the project to define the scope of work required to take the Reactor buildings into Care & Maintenance (C&M).

As a result of the funding challenge the team have reviewed the planned scope to address the high risk items first. A summary of the work packages targeted for this year are described below:

- *Asbestos Containing Materials (ACMs)*
- *Reactor Walkways*
- *Post Operational Clean Out (POCO)*
- *Column Base Remedial Activities*
- *Risk Based Deplant – Trial Area*

## **4 PEOPLE**

### **4.1 Site HR**

There are no current proposed changes to the Organisational structure, however we continue to undergo consultation in relation to a revised shift pattern for the Security Guard team, which will allow the site to improve resilience and reduce additional working hours in this area.

The focus on Mental Health continues and we have received a number of self-nominations from staff members who wish to become Mental Health First Aiders (MHFAs). These individuals are currently going through the application process and those selected for the role will undergo training in order to be appointed formally as MHFAs. They will then join the existing group to allow us to provide a wide network of accessible individuals who can provide confidential support, guidance and signposting in relation to mental wellbeing.

### **4.2 Occupational Health**

Our short term sickness levels remain good and the long term sickness rate is continuing to reduce month on month.

The site Wellbeing Group continue to increase awareness of the four pillars of good health (relax, move, eat, sleep well) and recently organised a planned 3 mile walk from the site to raise awareness about the benefits of walking.

As part of the focus on wellbeing, Occupational Health has recently introduced a weekly clinic where staff can have confidential blood pressure checks. As blood pressure is a good indicator of general health it is hoped these checks will allow the workforce to identify any early warning signs of any underlying physical illnesses and allow them to take early action to prevent more serious health issues later on.

## **5 ENVIRONMENT (July 2018 to June 2019)**

### **5.1 Radioactive Discharges**

#### Solid

Low Level Waste (LLW) disposals to the Low Level Waste Repository (LLWR) continue. 119.24 m<sup>3</sup> of LLW and VLLW was disposed of during the twelve month period from July 2018 to June 2019. There is no limit on the volume or radioactivity content of LLW and VLLW being disposed of under the new 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 July 2018 to June 2019 were decontamination of various areas within the cartridge cooling ponds building and routine waste water arisings from the site active drain system.

<b>Radionuclide or Group of Radionuclides</b>	<b>Annual Limit</b>	<b>Activity discharged (Jul 18 to Jun 19)</b>
Tritium	30 GBq	0.079 GBq
Caesium-137	160 GBq	0.111 GBq
Plutonium-241	2 GBq	0.017 GBq
All alpha emitting radionuclides not specifically listed taken together	2 GBq	0.071 GBq
All non-alpha emitting radionuclides not specifically listed taken together	60 GBq	0.190 GBq

Gaseous

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

<b>Authorised Outlet, Group of Outlets or other discharge route</b>	<b>Radionuclide or Group of Radionuclides</b>	<b>Annual Limit</b>	<b>Activity discharged (Jul 18 to Jun 19)</b>
All authorised outlets taken together.	Tritium	100 MBq	56.4 MBq
	All other radionuclides (excluding tritium)	3 MBq	0.475 MBq
Discharges made as a consequence of reactor breathing	Tritium	3000 MBq	562.83 MBq
	Carbon-14	200 MBq	67.89 MBq

## 5.2 Non-radiological Environmental update

Surveillance and analysis of the sewage treatment works effluent continues to ensure compliance with the CAR discharge licence. Treated sewage effluent from the plant continues to be independently assessed by SEPA throughout the year. Results from SEPA and 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 July 2018 to June 2019 the site used 19.27 Terra Joules (Tj) of energy, 18.46 Tj attributed to electricity consumption and 0.81 Tj attributed to fuel use in site vehicles, equipment, and generators. This equates to a fuel consumption volume of 21.06 m<sup>3</sup>. In the same 12 month period the site water consumption was 12,759 m<sup>3</sup>.

Over the period July 2018 to June 2019, 100% of the non-radioactive hazardous waste, 99.2% of the non-radioactive non-hazardous waste, and 100% of the non-radioactive inert waste produced at Hunterston A was sent for re-use or recycling. Of the 120.84 tonnes of waste managed by the site, only 1.02 tonnes of waste was disposed of to landfill during that period.

## 5.3 Environmental Events

Following a programme of inspections against the requirements of the Radioactive Substances Permit held by Magnox Limited for the Hunterston A Site, SEPA have assessed the site as **“Excellent”** with regards to compliance with the sites Permit conditions. As of 1 April 2019, the Hunterston A Site is now regulated under the Environment Authorisations (Scotland) Regulations 2018, which replace the Radioactive Substances Act 1993.

There were no significant environmental events in the period July 2018 to June 2019.

## 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 2019, to the end of June, are as follows;

- *Approximately 123 employees and visitors received a total collective dose of 1.731 man.mSv between them*



- *Approximately 242 contractors received a total collective dose of 17.160 man.mSv between them*
- *The highest individual dose received by an employee was 0.758 mSv*
- *The highest individual dose received by a contractor was 1.935 mSv*

The majority of dose accrued in 2019 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 MAGNOX SOCIO-ECONOMIC SCHEME

To date in 2019/20 there has been a total of seven applications submitted to the Magnox Socio-Economic Scheme. There is one application pending and six successful to date.

Please see the table below listing the applications to date that have been successful in receiving awards from the Magnox Socio-Economic Scheme this financial year.

<b>MAGNOX SOCIO-ECONOMIC SCHEME 2019/20 - HUNTERSTON AWARDS</b>		
<b>APPLICANT</b>	<b>DETAIL</b>	<b>AWARD</b>
Largs Youth Theatre	Equipment for 'Little Mermaid' Production	£720
Largs Organic Gardens	Phase 2 of Largs Community Gardens	£3,125
West Kilbride Early Years Centre	Washing Machine and Tumble Dryer	£800
Largs Viking Festival	Childrens Entertainment for Largs 2019 Festival	£1,000
West Kilbride Yuletide	Childrens Gifts / Entertainment for 2019 Event	£250
Largs Academy	Furniture / Equipment for Nurture Project	£1,000
<b>TOTAL</b>		<b>£6,895</b>

## 8 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.

DATE	EVENT / VISIT
13 June	<u>NDA Visit</u> Alan Cumming - Director of Nuclear Operations Dave Rushton - Lead Programme Manager Mark Longland - Executive Assistant to the Director of Nuclear Operations
18 June	<u>Executive Review</u> Paul Hunt - Decommissioning Director Caron Weaver - Asset Management and Improvement Director Tony Wratten - Decommissioning Director Pam Duerden - EHSS & Q Director
24 - 26 June	<u>NDA Assessment Group</u> Ranajoy Dey- Programme Manager Keith Craig - Programme Manager Glen Vaughan - National Programme Manager Spent Fuels Adrian Jones - Finance Manager – Magnox
24/24 June	ONR Inspection - Bill Kings, ONR Inspector
24/25 July	Site Closure Director Stand Downs - Quarterly Executive update
29/30 July	ONR-CNSS on site conducting interventions
6/7 August	ONR-CNSS on site conducting interventions
6 August	<u>New Magnox Executive - Transition visit</u> Gwen Parry Jones CEO Gordon Frisby - Finance Director John Vickerman - HR Director Nathan Langton - Programme Assurance Director
21 August	Senior TU Reps - Gary Swift / Dave Whitnall
28 August	Hunterston Site End State Workshop – Seamill Hydro
5 September	Hunterston Site Stakeholder Group (SSG) Quarterly Meeting, Waterside