



**HUNTERSTON A**

**STAKEHOLDER REPORT FROM  
SITE CLOSURE DIRECTOR**

**JUNE 2016**

**HUNTERSTON A  
SITE CLOSURE DIRECTOR'S REPORT TO THE SITE STAKEHOLDER GROUP  
THURSDAY 2 JUNE 2016**

**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**

### **1.1 Safety Review Performance**

Safety performance on site is very good: the site has worked 24 months since its last Lost Time Accident (LTA). Both the site's Total Recordable Incident Rate (TRIR) and Day Away Case Rate (DACR) are at 0.00.

Since the last SSG, there has been one First Aid Case injury on site which was very minor in nature: a Site Engineer noticed that one of his fingers was swelling up but had no recollection of how the injury happened.

Magnox is committed to continuous improvement in EHSS&Q and has produced and issued to all workers on site a new company "Standards and Expectations" booklet which defines the standards, expectations and behaviours required by all workers on Magnox Limited Projects and sites.

Learning from events is important to Magnox. We promote open reporting and always look to learn, share and prevent recurrence and have invested heavily in our event reporting systems, refreshing the way events on site are reported. A new Learning Capture Form (LCF) has been introduced company-wide. The LCF has replaced the Learning From Experience (LFE) form and the Loss Control Report (LCR) form resulting in all sites uniformly reporting using the same form via a single consistent reporting process.

The site maintains a healthy reporting culture and we are receiving LCF's on a daily basis, whether they are for defects, safety concerns or positive reporting of good practices. The LCF process requires an initial investigation to be undertaken by a selected person and the findings are reported back to the daily Safety and Compliance Meeting the following day. Normally the majority of LCF's are closed out by the initial investigation, but if there is further learning to be captured an Apparent Cause Investigation (ACI) or a Root Cause Investigation (RCI) is initiated.

The Event Review Meeting is held on a monthly basis and is chaired by the site EHSS&Q manager with support from OEF engineer. The meeting screens events and investigations to ensure the learning is captured and recommendations/actions placed from investigations are appropriate, SMART and closed out in a timely fashion.

Task observations are being carried out by Lead Team members frequently and provide excellent overview and assurance on activities being undertaken on site. The task observation process looks at work activity during setting to work, during work and end of work activity and engages Lead Team with work parties on site, maintaining management visibility. The findings from task observations are fed back to the working party and also the daily Safety and Compliance Meeting. Line managers and site supervisors are being coached on the Task observation process and are expected to undertake task observations frequently on site.

The site Safety Representatives meet fortnightly at the Local Safety Forum and both Magnox and Contractor Safety Representatives support the meeting. This meeting provides the opportunity to discuss safety issues with Magnox management. The Safety Representatives also attend the site HESAC which is held bi-monthly. The site HESAC is chaired by the Site Closure Director and supported by the EHSS&Q manager. This is a well-attended forum and provides a platform for the discussion and resolution of any burning safety issues on site.

## 2 DECOMMISSIONING PROGRESS

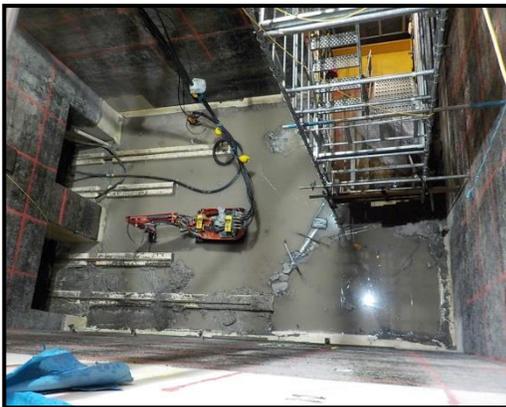
### 2.1 Clean and Drain Pond Project

Floor decontamination work is ongoing in the Pond, with Bays 1, 2 & 3 complete. Bay 4 is drained and a clear up of the floor is underway.

Bay 5 has been drained, the floor cleared and the walls are currently being cleared using a remote Ultra High Pressure (UHP) jetting system. De-sludging has also been complete in Bay 7.

In the coming months the remaining sludge will be transferred from Bay 8 to the Pond Purge Sump (PPS). This will be carried out in conjunction with concrete decontamination works throughout the other remaining Bays.

- *352m<sup>2</sup> of 1078m<sup>2</sup> of concrete surfaces have been shaved.*
- *365m<sup>3</sup> of 675m<sup>3</sup> of pond water has been drained.*
- *1354 of 1626 pontoons have been removed.*



**Bay 2 during remote clear up**



**Bay 2 after concrete shaving carried out**

## 2.2 Sand Filter Project

The diamond wire-sawing operations were completed on both of the sand filter vessel's concrete-filled bases and the quartered sections were lifted out of the cells for disposal. The two cells were then decontaminated and health physics back-out surveys were carried out until the cleaning results were acceptable. The scaffold access points into both cells were dismantled and afterwards the double row of concrete roof beams were refitted to close up both cells again.

The overall Sand Filter Project objectives to remove the sand media, deplant and size reduce the six off vessels and associated pipework systems is now successfully completed.



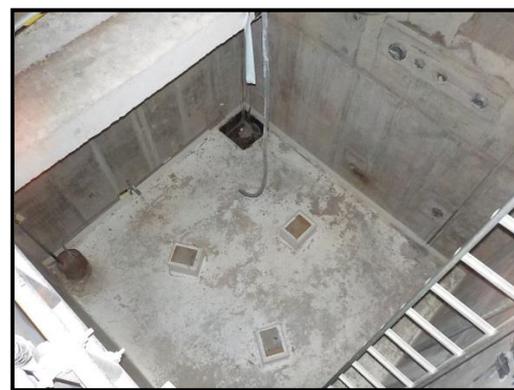
*Sand Filter Cell 3 – February 2015*



*Sand Filter Cell 3 – April 2016*



*Sand Filter Cell 4 – February 2015*



*Sand Filter Cell 4 – April 2016*

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

Operations to retrieve Solid Intermediate Level Waste (SILW) from the Solid Active Waste Bunkers continues to progress well and to date, 337 packages of ILW from bunkers 4 and 5 have been retrieved and safely transferred to the ILW Store.

The project completed clearance of Bunker 4 at the end of March 2016 and are currently progressing activities associated with breaking through the Bunker 4/3 wall to allow access to the waste contained in Bunker 3. Breakthrough will be achieved through a coring and diamond wire sawing technique prior to final remote demolition using the Brokk Remote Operated Vehicle. This method has been successfully utilised on both previous bunker breakthroughs and is progressing ahead of programme.

The project expects to resume waste retrievals in June 2016.

#### **2.4 Wet Intermediate Waste Retrieval & Encapsulation Plant (WILWREP)**

The project team have continued with inactive commissioning of the facility.

The project has produced eight inactive commissioning 3m<sup>3</sup> drums during final System Performance Demonstrations. These demonstrations have presented a number of technical challenges which have been dealt with by making minor modifications and improvements to the facility.

The Office for Nuclear Regulation (ONR) completed a Readiness Inspection on the facility in March 2016. The ONR inspection report presented the project with a number of actions which need to be completed prior to Active commissioning. ONR are due to review the project action responses the week beginning the 27 June 2016.

The objective of the project remains to progress to active commissioning, subject to the completion of all inactive commissioning, an internal independent review from Magnox, and external approval from ONR to proceed to active commissioning.

#### **2.5 Solid Intermediate Level Waste Encapsulation (SILWE) Project**

A total of 2690.5m<sup>3</sup> of concrete has been poured as of 23 May 2016. This equates to approx. 95% of the civil works with a small number of pours to complete the remaining walls and roof sections.

The crane lateral beams and rails have been installed at site and the main crane is due for site installation in the next quarter. An offsite testing facility to test the conveyor system is well established in Renfrew and assembly of the conveyor system continues. Installation of the grout handling and recovery cell equipment has commenced at the offsite test facility.

The safety performance of the main contractor had been an area of concern. These concerns have been adequately addressed between Magnox and the main contractor and the safety performance on the project has improved to a satisfactory level.

### **3 PEOPLE**

#### **3.1 Site HR & Occupational Health**

The activities to confirm population of Magnox employees into the new organisation (Best Fit process) is now nearing completion. The two appeals against the Best Fit outcomes are now complete – one appeal was upheld and the other agreed in the employee's favour. Of the 148 Magnox employees across Hunterston site; 144 employees have now been confirmed as being placed in posts in the new Hunterston structure, either through the original Best Fit matching or through the Company identifying a subsequent suitable role; one employee has been offered a suitable role elsewhere in the Company. It is expected that three employees will leave the Company later this year ~August/September on voluntary severance.

In terms of meeting employee aspirations, the final position is: 145 of the 148 Magnox employees at Hunterston have achieved their aspirations (~98%). All employees who wished to remain employed have been provided with employment and three of the six employees who wanted voluntary severance are expected to achieve their aspiration

The final structure with allocations to posts has now been issued and remaining vacancies (posts not filled by Magnox employees) are in progress of being advertised. This is to allow Magnox employees who may have career development aspirations to be considered for these posts. There are a significant number of 'vacancies' of which the vast majority are currently filled by the Supply Chain (Agency/Contract Supplied Workers or Contractors) and it is envisaged that in the majority of cases this current resourcing strategy will remain unchanged. These are areas where we do not have the skills available within the Magnox workforce and may in some cases allow flex in resource to meet varying project demands. There are a small number of vacancies that are new posts which are not currently filled and it is expected that these will be sourced from the Supply Chain in the near future.

From the 9 May 2016 implementation of this new structure commenced - this being a phased transition which is expected to be fully implemented by September / October 2016. Throughout this transitional period, in addition to filling the remaining vacancies, other enabling activities such as training in new skills, managed reduction of work activities, transfer of work activities and responsibilities to other work groups through agreed handover etc. will be undertaken. This is to ensure the organisational change is managed effectively, without impact on safety or delivery.

In recent months looking at our health statistics these have been well above the Company target. This bears no relation to the transition that we are going through however, with the statistics being driven primarily by a high number of long term sickness (LTS) cases related to either serious illness or planned operations. Short

term sickness is low and sickness absence continues to be managed through a combination of Occupational Health, line manager and HR pro-active employee support. The current position has improved with many of the LTS cases having recently returned to work or planned to return to work in the near future.

## 4 ENVIRONMENT

### 4.1 Radioactive Discharges

#### Solid

Low Level Waste (LLW) disposals to the Low Level Waste Repository (LLWR) continue. 103 m<sup>3</sup> of LLW was disposed of during the twelve month period from April 2015 to March 2016. There is no limit on the volume or radioactivity content of LLW being disposed of under the new authorisation. The main contribution to these waste consignments was redundant plant and equipment generated during decommissioning operations.

#### Liquid

The main source of liquid radioactive discharges during the period April 2015 to March 2016 was dewatering of the pond.

Radionuclide or Group of Radionuclides	Annual Limit	Activity discharged (April 2015 to March 2016)
Tritium	30 GBq	0.35 GBq
Caesium-137	160 GBq	0.28 GBq
Plutonium-241	2 GBq	0.12 GBq
All alpha emitting radionuclides not specifically listed taken together	2 GBq	0.36 GBq
All non alpha emitting radionuclides not specifically listed taken together	60 GBq	1.01 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 (April 2015 to March 2016)
All authorised outlets taken together.	Tritium	100 MBq	56.4 MBq
	All other radionuclides (excluding tritium)	3 MBq	0.74 MBq
Discharges made as a consequence of reactor breathing	Tritium	3 GBq	0.57 GBq
	Carbon-14	200 MBq	56.8 MBq

## 4.2 Non-radiological Environmental update

Surveillance and analysis of the sewage treatment works effluent continues to ensure compliance with the discharge licence. The sewage treatment works reed beds continue to work efficiently to maintain good quality effluent.

Monitoring of resources such as water, electricity and fuel continues to determine where use can be minimised. Site objectives and targets for resource use are being monitored and reviewed and any actions are being completed as planned.

Over the period April 2015 to March 2016 over 93% of the non-radioactive hazardous waste, 99% 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. Only 7.8 tonnes of waste was disposed to landfill during that period.

## 4.3 Environmental Events

There were no environmental events in the period April 2015 to March 2016.

# 5 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 2016, to the end of April, are as follows;

- Approximately 136 employees received a total collective dose of 4.747 man.mSv between them
- Approximately 276 contractors received a total collective dose of 31.443 man.mSv between them
- The highest individual dose received by an employee was 1.106 mSv
- The highest individual dose received by a contractor was 2.470 mSv

The majority of dose accrued in 2016 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.

Pond doses over the next 12 months are expected to be higher compared with the last couple of years as the project team decontaminate the floor. The radiation doses will be carefully managed to ensure they remain as low as reasonably practicable.

### **5.1 Radiological Events**

There was one radiological event in the period from January 2016 to April 2016. A small piece of Low Level Radioactive graphite, approximately the size of a ten pence piece, was found out with the Nuclear Licensed Site but within the Hunterston A site. The graphite was recovered and returned to a storage location on the Nuclear Licensed Site. An investigation is underway to understand the circumstances that led to this event.

## **6 EMERGENCY PREPAREDNESS**

The Emergency Response Team (ERT) continues to train for incidents that may occur on site, be they nuclear, environmental and conventional or security. The teams have been deployed on five occasions since March 2016 until mid-May. There have been three first aid cases, one non-work related, with one individual being rescued from a scissor lift and being removed from Site by an ambulance following taking ill. There have been a further two incidents involving spills or leaks that they have had to address. Most events that the ERT respond to are for minor oil leaks, usually from plant or vehicles, however they have to be ready for any number of potential events and they continue to train accordingly.

The Teams are currently going through their annual refresher training supported by Scottish Fire Development throughout the month of May.

In March 2016, a determination from ONR that the site no longer has obligations under Regulation 9 of the Radiation (Emergency Preparedness and Public Information) Regulations (REPPPIR) was received, and we are therefore now working towards the implementation of the new contingency arrangements that shall replace the current emergency arrangements. There shall be a series of exercises carried out throughout the year, utilising the Emergency Services, with a view to hopefully carrying out a demonstration of the new arrangements to the ONR and Magnox Independent Site Inspectors around October of this year.

As stated previously to the SSG, this work has already been undertaken at other Magnox Sites with support from the Magnox Central Emergency Planning Team, and buy-in from the ONR. Hunterston has gleaned any opportunity to capture the learning from the other Sites prior to planning for the introduction of the Contingency Arrangements to our Site. Before adoption, the ONR will have to be satisfied that the site's response capability remains suitable and sufficient.

**Note:** this does not affect in any way the EDF emergency arrangements and the DEPZ.

## 7 SOCIO-ECONOMIC AWARDS

Further details on the applications can be found in a separate report at the SSG Meeting. In summary, there has been a total of **8** applications already in 2016/17 (**3 successful and 5 pending**). Please see below the table of applications that have been successful in receiving awards so far this year:

<b>MAGNOX SOCIO-ECONOMIC SCHEME 2016/17 - HUNTERSTON AWARDS</b>		
<b>APPLICANT</b>	<b>DETAIL</b>	<b>AWARD £</b>
Largs Rotary Club	Dragon Boat Charity Race – Youth Boat	300
Street Beatz Dance School	Holdalls for Dancers for Competition Events	450
Largs Events	Schools Kites Project – Largs Event 2016	500
<b>TOTAL</b>		<b>1,250</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. A selection of visitors and key dates during the period included:-

<b>DATE</b>	<b>EVENT / VISIT</b>
16 March	Site Closure Director Update to SSG Chair, Rita Holmes and SSG Vice-Chair, John Lamb & Magnox Socio-Economic Local Review Panel Meeting
22/23 March	ONR Peter Donnelly - WILWREP Readiness Review
30 March	Principal Inspector ONR-CNS John Jacobs - Security Inspection
20 April	Site Closure Director Update to SSG Chair, Rita Holmes and SSG Vice-Chair, John Lamb & Magnox Socio-Economic Local Review Panel Meeting
27 April	Senior TU Reps - Laurie Hobden (Prospect) / Dave Whitnall (Unite)
3 / 4 May	Asset Management Peer Assist Dive conducted by Magnox personnel.
10 May	Quarterly Stand Downs by Site Closure Director
25 May	Site Closure Director Update to SSG Chair, Rita Holmes and SSG Vice-Chair, John Lamb & Magnox Socio-Economic Local Review Panel Meeting