



HUNTERSTON A

SITE STAKEHOLDER GROUP REPORT

SITE DIRECTOR – MARK BLACKLEY

JUNE 2022

HUNTERSTON A
SITE 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 based on the current decommissioning strategy.

The site was impacted by positive cases of Covid 19 but remained safe and compliant and delivered planned work activity. The site's Covid secure arrangements have been further relaxed in line with Government advice.

Conventional Safety Performance on site remains good. The site has continued to safely deliver work on site with no Lost Time Accidents (LTA's) since March 2021.

There were no significant Nuclear / Radiological Safety or Security issues over the reporting period.

There was one Environmental event following the discovery of a small hole in one of the sites authorised gaseous discharge stacks during a planned inspection. Upon discovery of the defect the associated ventilation plant was switched off and a repair to the stack was carried out. No other similar defects were identified on other discharge stacks.

There has been some excellent progress in a number of areas during the reporting period;

- *The Higher Activity Waste team retrieved in excess of 71Te of Intermediate Level Waste to the Store during 2021/22 financial year. It is forecast that the bulk retrieval of waste from Bunker 1 should be completed by late summer 2022.*
- *The demolition of the Learning and Development centre was completed.*
- *The installation and in-active commissioning of a new Effluent Treatment Plan was completed.*
- *A number of Asset Management improvements were completed including upgrades to security and electrical systems, improved welfare facilities and repairs to buildings / roofs.*

Whilst there are ongoing recruitment challenges it is pleasing that Hunterston has filled 64 resource requests since April 2021, either by direct recruitment or conversion of agency workers onto Magnox New Starter contracts. Our key focus over the next few months will be starting the health physics trainees and the selection for the craft apprenticeships.

More details on some of these highlights are within the appropriate sections of this report.

2 SAFETY OVERVIEW

2.1 Safety Review Performance

Safety Performance on site remains good. The site has continued to safely deliver work on site with no Lost Time Accidents (LTA's). Thirteen months have passed since the last LTA on Hunterston A Site. The Total Recordable Incident Rate (TRIR) is now 0.00. The Site did however have three occasions where individuals received first aid treatment for minor injuries suffered during work activity. The injuries were a cut to finger, cut to leg and a graze to the head. After receiving treatment all returned to their daily tasks.

The site was impacted by positive cases of Covid 19 but remained safe and compliant and delivered planned work activity. Our Covid Contingency planning provided the site with the opportunity to appropriately respond to positive cases when they became apparent. The numbers of positive notifications to the site have greatly reduced and is now having a very minimal, if any impact on site.

The site's Covid secure arrangements have been further relaxed as we progress to exit the strict controls implemented due to the Covid pandemic. In line with government guidance and company policy we have revoked the site specific Covid arrangements and now work directly to the Company's revised document "Working and Living with Respirable Diseases including Covid – 19"

Any changes to the site's Covid Arrangements were discussed with site safety representatives and agreed at the site HESAC before implementation.

The sites Fire Life Safety Arrangements were inspected by the Office for Nuclear Regulation (ONR) Fire Inspectors. This inspection looked at the site's arrangements for fire life safety in general, also specifically at the Solid Intermediate Level Waste Encapsulation Plant and both Reactors on site. Some improvements opportunities were identified, and the site was deemed to have adequate Fire Life Safety arrangements.

The site's Fire Safety Management Group continue to meet bi-monthly and constantly review all aspects of Fire Life Safety arrangements and systems on site to ensure compliance and our Fire Life Safety arrangements are appropriate.

Target Zero continues to raise awareness on various topics such as Fire Safety, Mental Health and LOLER/PUWER.

The sites reporting culture remains strong and consistent. The site receives over 100 Q Pulse reports every month and each report is assessed/reviewed at the daily safety and compliance meeting and categorisation screened at the weekly event review meeting.

The site safety representatives meet fortnightly at the Local Safety Forum and bi-monthly HESAC meetings. These meetings are well supported by Magnox and contractor Safety Representatives.

2.2 Emergency Arrangements

The sites Accident and Emergency Contingency Arrangements remain suitable and sufficient for work activities and foreseeable events that may or could occur through the undertaking of work activity on site. The Contingency arrangements are frequently tested to ensure they remain in a state of readiness.

New work activities are being undertaken on site that requires Contractors to be working at height. The Contractor involved had successfully demonstrated their ability to rescue/recover a person from height and provide first aid.

Contractors are responsible for ensuring that their Contingency arrangements remain suitable and ever ready. They test them frequently and Magnox are invited to oversee the training exercises.

The Security Guards continue to test the silent hours contingency arrangements.

The wellbeing group ran several Defibrillator and Resuscitation awareness training sessions. These sessions were well attended, and more sessions have been arranged. This is a life skill that can be taken away from the workplace.

3 DECOMMISSIONING PROGRESS

3.1 Hunterston Reactor Project / Plant & Structures

Reactor Remedial Repairs

The Reactor Remedial Repairs works programme has completed removal of all external cradle rails from both reactors and painting of exposed brackets, following the removal of the rails. Works to replace water damaged open floor gratings and durbar plates is now complete in both reactors. The remaining scope, which is to repair 27 column bases across both reactor buildings is continuing and is expected to be completed by July 2022.

Reactor Interim Roof Remedial Works

Works started on site in January 2022 with reassurance surveys and installation of safety netting to secure a system inside the reactors under the roofs as a fall arrest measure. The reassurance monitoring and internal safety netting is complete and work to access the fragile roof via a system of 'Easi-deck' walkways and installation of perimeter handrails by rope access is ongoing. Application of a SIKA waterproof coating to the facades of reactor one via a MEWP has also commenced. The main works to arrest water ingress to the roofs by applying a SIKA protection system, which is weather dependent, will continue on following completion of the fall arrest and edge protection works and is due to be completed by end of October 2022.

Learning and Development (L&D) Centre Demolition Works

Plant and Structures has completed a small-scale demolition project of the Learning and Development centre (L&D) at Hunterston A on time and to budget. The work consisted of demolishing the main L&D building and a number of small outbuildings, in addition to excavating and removing a buried septic tank. The project is currently in the close down phase.

3.2 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 3m³ 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.

The plant was shut down to facilitate a routine planned, maintenance outage in SAWBR on week commencing Monday 2 May for a duration of two weeks. This outage was completed, and the plant has since been returned to service and continues to export filled boxes of waste.

Out-with the period of the outage the SAWBR facility continues to operate, processing waste from Bunker 1. To date, the SAWBR team have safely exported a cumulative total of Two Hundred and Twenty 3M³ boxes from Bunker 1 to the ILW Store, this equates to **132.4 Tonnes** of Bunker 1 waste. This brings the total of 3M³ boxes exported from SAWBR (all bunkers) to **1113 Boxes**. It is forecast that the bulk retrieval of waste from Bunker 1 should be completed by late summer 2022.



Bunker Waste Recovery Operations, showing a Brokk sorting waste from Bunker 1

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

The WILWREP facility was designed and constructed to recover and encapsulate Intermediate Level Waste (ILW) sludges, resins and acids stored in site tanks. The plant is now undergoing a reconfiguration to allow the processing of ILW Nitric acid, currently stored within the Acid Storage Facility. WILWREP operations personnel are assisting with these reconfiguration works and providing support as required to Waste Projects work on the Pond Purge Sump Retrieval and Encapsulation Plant (PPSREP) – which is being installed for retrieval of sludges at a different location on site.

When possible, the WILWREP team are continuing to consolidate the residual sludge from three Sludge Retention Tanks in WILWREP and one of the methods of consolidating the sludge, whilst segregating the debris, is with the use of the “Dumper Bot”.

Operations have now commenced on Dumper Bot recoveries in SRT3 (see picture opposite), moving the remaining sludge within the tank to a single location. The Bot will then be used to separate solid items of debris from the remaining sludge, allowing the team to clear the base of the tank. This work should take around two months, then the Dumper Bot will be transferred to SRT2 to continue the process.



3.4 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. It is expected to take up to three years to encapsulate approximately 1500 stainless steel packages. Once encapsulated, the packages will be in their disposable state.

The SILWE Project continue with preparations for the commencement of Phase 2 Commissioning in August of 2022. Phase 2 will conclude with plant operations being managed via the SILWE control room.

Recently we have had a bit of a setback with the Kuka robot sequences. It is expected that a solution will be in place in the coming weeks. This will allow the system performance demonstration to progress.

The project plan is to transition into Phase 3 Commissioning in November of 2022, with Active Commissioning forecast to commence in the second quarter of 2024.



3.5 Ponds Programme

New Effluent treatment Plant (NEffTP)

Work to install a New Effluent Treatment Plant within the Low-Level Waste Transfer Facility at Hunterston A progressed throughout the reporting period. This system will facilitate the eventual diversion of current miscellaneous effluent streams which will in turn enable wider decommissioning of site by creating redundancy in the systems and tanks currently still in use.

JGC mobilised for Hunterston in February and Installation concluded at the end of March with inactive commissioning achieved in early April. The team are now focused on addressing minor actions from inactive commissioning activities whilst turning their attention to readiness for active commissioning later in the year.



New Effluent Treatment plant within the Low-Level Waste Transfer Facility.

Miscellaneous Effluent Bowsers

In a project related to the New Effluent Treatment Plant, FAT's were carried out within the period on the four miscellaneous effluent bowsers being procured from Trailer Engineering and the new kit has now been delivered to site.

These Bowzers (*pictured below*) will become the means of collecting effluent and transferring it to the NeffTP once the existing effluent streams have been diverted.

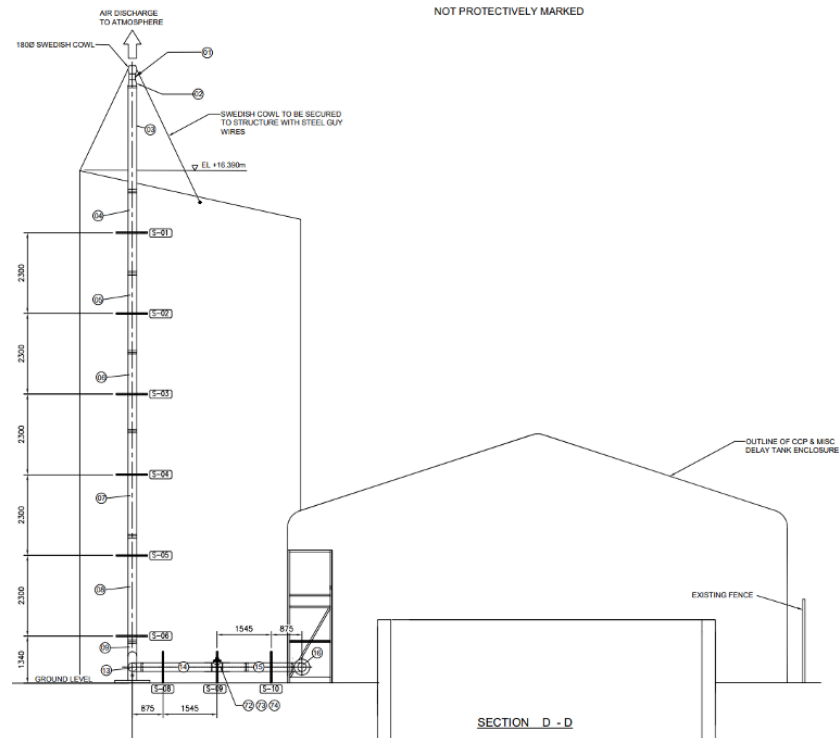
The bowzers will allow unmanned local collection of effluent and will integrate with the wider monitoring systems on-site to provide automatic warnings when reaching capacity.



Delay Tank Blockhouse Ventilation

The redundant delay tanks are located within the Radiological Control Area (RCA), between the Replacement Delay Tank (RDT) and the Wet Intermediate Level Waste Retrieval and Encapsulation Plant (WILWREP) and opposite to the Solid Active Waste Building (SAWB). There is currently no ventilation system for the delay tanks as it was removed historically due to degradation and as a result all decommissioning works associated with the tanks have been suspended.

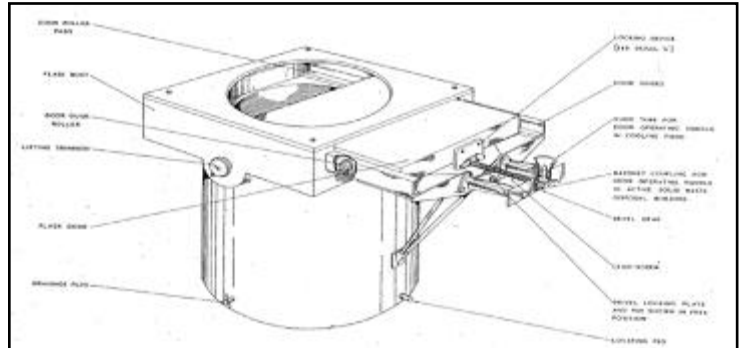
Work to reinstate a ventilation system to the delay tanks is underway, which, when complete, will facilitate decommissioning. The design of the system has now concluded with manufacturing and installation drawings approved and the team are working towards achieving DAR 4 in the coming weeks before commencing procurement.



General Arrangement of Delay Tank enclosure and new ventilation system.

Ponds ILW Retrieval

During the period the Pond Operations team filled the SAW flask with ILW from the blockhouse and it was transferred to High Active Waste. This represents a key milestone in site ILW retrieval and overall hazard reduction within the pond and is the final time that the SAW flask will be required for use within the pond.



Photograph and drawing of Solid Active Waste Flask

4 ASSET MANAGEMENT

Asset Management forms a cornerstone of site operations to ensure the ongoing integrity of site assets during the lifecycle plan. The work also involves the disposal, remediation and repurpose of assets across the site. The aim is to work in partnership with others on Site to provide and maintain a safe and secure working environment. Areas on Site that fall within the scope of asset management include:

- *Physical infrastructure*
- *Installed and temporary plant and equipment*
- *Facilities*
- *Utilities*

A number of Work Packs were concluded at the end of the last financial year 2021/22 including upgrades to security and electrical systems, improved welfare facilities and roadways, removal of asbestos in aged equipment and repairs to building envelopes that are subject to harsh, coastal weather conditions.

Improvements for this financial year 2022/23 include:

- *Phase 2 of the welfare facilities upgrades.*
- *Ventilation system upgrades.*
- *Crane upgrades*
- *Replacement of the Sites Mains Supply Transformers*
- *Replacement of the Sites Waste Monitoring Equipment*
- *Remediation of building fabric and site infrastructure in support of current Business Plan*
- *Review of facilities to meet future Business demand and provide underpinning for Investment Plan where appropriate*

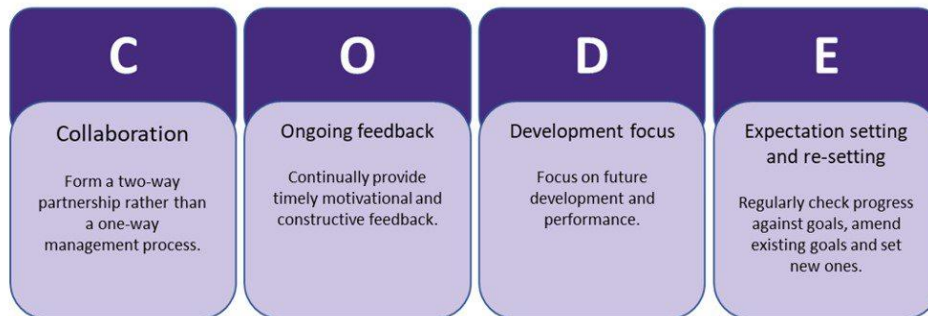
5 PEOPLE

5.1 Site HR

We have recently been reflecting on the level of resourcing that has been ongoing at Hunterston, which has been significant, with 64 resource requests having been fulfilled during April 2021 to date and a number of others currently in progress. This has resulted in refreshment in some areas; securing valuable agency workers onto Magnox New Starter contracts and assisted in improving our succession planning for the future as well as the socio-economic aspects. Our key focus over the next few months will be progressing the trainee positions within health physics disciplines that we have candidates identified for and commencing the selection of craft apprenticeships.

Trends from the feedback from the recent Employee Engagement Survey have now been identified and are being communicated in group sessions with staff across the site. These are in the areas of engagement, EDI and health and wellbeing. Following this, action plans will be developed to progress improvements

Our new Performance Management arrangements **Valuing Individual Performance (VIP)** were launched from April this year and line managers and team members are currently planning the first of these conversations under the new process. The principles of the VIP approach are summarised as CODE:



5.2 Occupational Health

Our Wellbeing Group continues to promote a variety of mental health and wellbeing initiatives across the site. Recent examples include the Hunterston Step Challenge, provision of information on organisations who provide emotional and practical support to those who have caring responsibilities; and Mental Health Awareness Week where the theme this year was loneliness. In support of this year's theme a variety of webinars from Care First being available to view as well as colleagues from across the NDA estate talking about their personal experiences in a collection of videos called "This is me"

With the recent reduction in Covid restrictions, there has also been a roll out of Defibrillator Familiarisation Sessions on the use of Automated External Defibrillator's (AED's) to provide an insight into how they work and allay any fears of using one.

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 2022, to the end of April, are as follows:

- *Approximately 154 employees and visitors received a total collective dose of 4.637 man.mSv between them*
- *Approximately 215 contractors received a total collective dose of 6.071 man.mSv between them*
- *The highest individual dose received by an employee was 0.650 mSv*
- *The highest individual dose received by a contractor was 0.764 mSv*

The majority of dose accrued in 2022 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 (April 2021 - March 2022)

7.1 Radioactive Discharges

Solid

Low Level Waste (LLW) disposals to the Low Level Waste Repository (LLWR) continue. 91.88m³ of LLW and VLLW with a total activity of 1.7 GBq was disposed of during the twelve month period from April 2021 to March 2022. 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 April 2021 - March 2022 were decontamination of various areas within the cartridge cooling ponds building, liquors generated through wet waste recovery and encapsulation processes, and routine waste water arisings from the site active drain system.

Radionuclide or Group of Radionuclides	Annual Limit	Activity discharged (Apr 2021 - Mar 2022)
Tritium	30 GBq	0.011 GBq
Caesium-137	160 GBq	0.060 GBq
Plutonium-241	2 GBq	0.003 GBq
All alpha emitting radionuclides not specifically listed taken together	2 GBq	0.003 GBq
All non-alpha emitting radionuclides not specifically listed taken together	60 GBq	0.057 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 (Apr 2021 - Mar 2022)
All authorised outlets taken together.	Tritium	100 MBq	0.3 MBq
	All other radionuclides (excluding tritium)	3 MBq	0.432 MBq
Discharges made as a consequence of reactor breathing	Tritium	3000 MBq	476.98 MBq
	Carbon-14	200 MBq	52.93 MBq

7.2 Non-radiological Environmental update (April 2021 - March 2022)

Treated sewage effluent from the plant is not currently being independently assessed by SEPA due to SEPA Covid restrictions on visiting Site. 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 in compliance with the sites CAR discharge licence.

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 April 2021 to March 2022 the site used 15.93 Terra Joules (Tj) of energy; 14.96 Tj attributed to electricity consumption and 0.97 Tj attributed to fuel use in site vehicles, equipment, and generators. In the same 12-month period the site water consumption was 9,540m³. The site continues to report carbon equivalent emissions data as per the new company process.

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. Over the period April 2021 to March 2022 a total of 397.85 tonnes of waste was collected for consignment from site (397.05 tonnes for recycling, recovery, or composting, and 0.8 tonnes for disposal to landfill). This gives a recycling rate of approximately 99.80%.

7.3 Environmental Events

There was one significant environmental event reported between December 2021 and March 2022 following the discovery of a defect on one of the sites authorised gaseous discharge stacks during a planned inspection.

The defect was a small hole caused by local corrosion on a thin wall section of the metal duct after the HEPA filter abatement but before the inlet to the stack sampling instrument.

Upon discovery of the defect the associated ventilation plant was switched off and a repair to the stack was carried out.

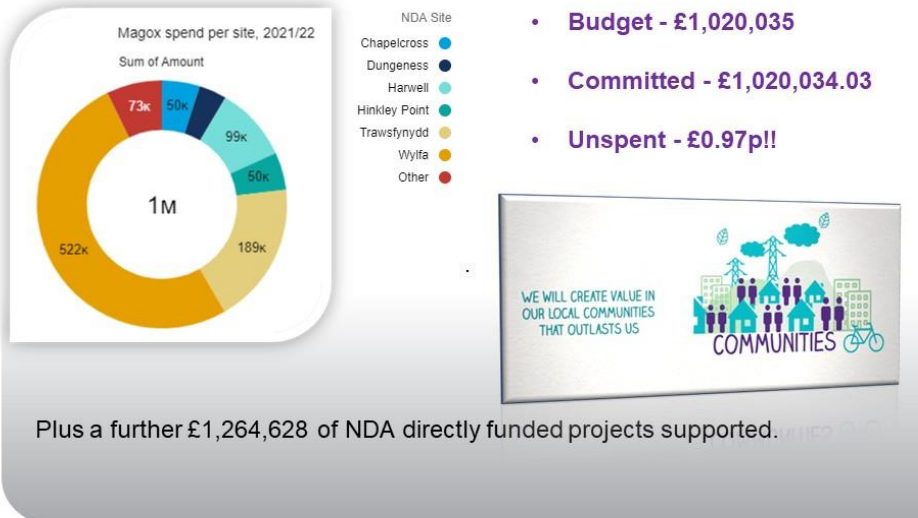
No other similar defects were identified during the inspection of the remaining site authorised gaseous discharge stacks.

An assessment has concluded that the small hole resulted in an increase to the measured discharge from the stack of 0.3%. This does not alter the monthly discharge information reported to SEPA.

8 SOCIO-ECONOMIC / STAKEHOLDER UPDATE

The electronic application form for the socio-economic scheme can be found on our external website at <https://www.gov.uk/government/collections/magnox-working-with-our-communities>

Magnox Socio-economic Scheme 2021/22



Projects supported around Hunterston site

Kilwinning Campus Future Skills Hub update.
North Ayrshire college was awarded £499,999 Magnox funding towards the new skills hub back in 2019. There were significant delays due to Covid and the transfer of the adjacent land from North Ayrshire Council. This is now complete and planning permission was approved by the in July 2021. Ground works are in place and construction has begun. It is anticipated the hub will be ready to welcome students in Spring 2023.



Garnock Visitor and Community Hub – North Ayrshire Council received £500,000 NDA funding towards the £4.2m project. Work is progressing well and on target for completion in August 2022.



Hub taking shape



Artist impression of the new hub

North Ayrshire Council received £23,000 NDA funding to produce a research report assessing the potential impacts that the decommissioning of Hunterston B will have upon North Ayrshire and the wider economy to inform opportunities arising through a coordinated approach to the Hunterston Strategic Development Area.

For further information: [Magnox working with our communities - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/collections/magnox-working-with-our-communities)



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.

DATE	EVENT / VISIT
Thursday 3 March	Site Stakeholder Group Meeting (<i>Microsoft Teams Meeting</i>)
Thursday 3 March	Hunterston Decommissioning Teleconference Update by Site Director, Mark Blackley to Hunterston SSG Chair, Rita Holmes and SSG Vice Chair Stuart McGhie. (<i>Microsoft Teams Meeting</i>)
Tuesday 8 March	ONR/CNSS Intervention – John Duffy, Nuclear Security Inspector
Tuesday 8 March	ONR Fire Safety Inspection Ray Kassir/ Steve Hughes
Wednesday 9 March	Dr Ros Rivaz, Chair, Nuclear Decommissioning Authority Mark England, Transfer and Deconstruction Director, EDF Paul Winkle, Chief Operating Office, Magnox
Tuesday 5 April	OBR Inspection – ONR Principal Inspector, Stuart Fannin
Thursday 7 April	John Grierson - Nuclear Operations Director
Wednesday 4 May	Internal Safeguards Review
Monday 9 - Thursday 12 May	SILWE Review – Martin Grey NDA Head of Asset Management & team. Ross McAllister Magnox Programme Delivery Director & team
Tuesday 17 / Wednesday 18 May	Operational Experience Feedback Review - Lead Chris Hinton
Tuesday 17 / Wednesday 18 May	ONR Inspection - ONR Principal Inspector, Stuart Fannin